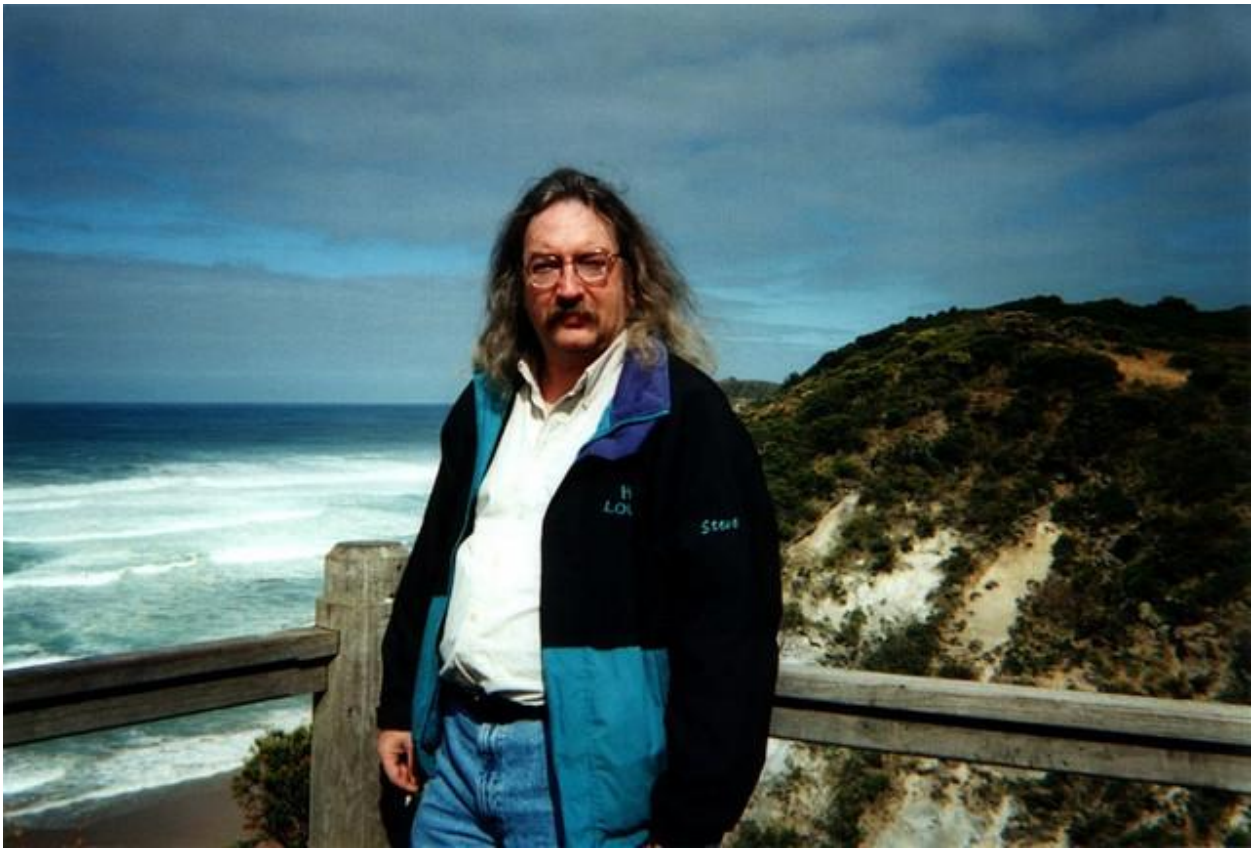
Knowledge, Learning and Community



By Stephen Downes
September 7, 2001

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Chapter 1 ~ Teaching

Multimedia, Teaching and Learning

> What should be taught depends in part on the needs and interests of the student, in part on the discipline being covered, and in part on the general set of knowledge and skills required to function in a modern industrial society.

Posted to DEOS-L on 9 Jul 1997

Simplicity is deceiving. Practise is laden with complexities. We need to be careful about sweeping maxims...

Teaching is: ongoing, and therefore, always appropriate.

I don't agree. Teaching is not appropriate at 4:30 on a hot summer day (especially in Manitoba, where we only get three months of summer) after eight hours of instruction. Teaching, like any other activity, requires intermissions.

What should be taught is beyond our determination. We will make offerings from which some learning will occur for us and the students.

What should be taught depends in part on the needs and interests of the student, in part on the discipline being covered, and in part on the general set of knowledge and skills required to function in a modern industrial society.

Given that a teacher usually knows more about the subject matter, in some cases it will be appropriate for a teacher to decide what is taught and for a student to follow that lead (I am reminded of the car waxing activity in The Karate Kid). Or, put another way: if we left the determination of what should be learned entirely up to students, they'd never learn fractions.

When I teach, I do not "make offerings". It is not a case of me presenting and them either accepting or rejecting. Teaching is, first and foremost, a process of communication. First, a link or connection is established. Then information is transferred, usually (but not necessarily) from teacher to student. Then a dialogue occurs as the student (attempts to) assimilate the new knowledge with previously acquired knowledge, evaluate the new knowledge, and apply the new knowledge.

The focus should be on interpersonal skills, determining truths, and basic competencies for communication and evolution to personal actualization.

Learning takes place against a backdrop of critical thinking skills. Critical thinking involves the following components: - receiving new information (i.e., reading skills, listening skills) - assimilating this information (recognizing patterns, finding similarities, drawing metaphors) - evaluating this information (testing for truth against previously accepted information, testing for applicability in different contexts) - applying this information (practise in controlled settings, practise in new situations)

Interpersonal skills, insofar as they relate to education, focus primarily on one's capacity to receive information and to engage in the dialogue necessary to assimilate, evaluate, and apply the information.

Anything beyond that is either: (a) an ethical matter, focussing on the mores and norms of conduct in society, or (b) an adaptive matter, that is, generating the skills needed to function usefully and happily in society. These items are content, that is, they consist of items of information to be taught. While it would be appropriate to teach ethics and adaptation in a social studies class, it would be a bit out of place in a mathematics class.

Determining truths is a background skill, one which forms the context for learning. While it is often treated as a subject which can be taught (as in for

example logic classes) it is also reflective of an attitude which is valued in learning as it forms part of the learning process. My own view is that you cannot teach 'determining truths' in a vacuum - truth is always context-dependent and therefore requires a medium of information in which to function.

"Evolution to personal Actualization" is an ethical principle. It is the principle which forms the base value for societies depicted in Star Trek. It is reflected in the maxim "Be All That You Can Be". As a guiding principle for life, it's a pretty good one.

But it's not one which is universally adopted. Today's maxim in our schools seems to be to teach people to be entrepreneurial. This is a different ethic (since it often requires people to sacrifice personal development in order to spend time making money).

In the final analysis, however, it is not possible to "teach an ethical principle". At best, we can teach people *about* an ethical principle (or, in an ideal environment, several ethical principles). Whether the student in question adopts the principle in question is not so much a matter of education as temperament.

Individual human needs, and maturity, will of themselves provide the parameters for the learning to occur.

This is unlikely. People can have needs, and be mature, and yet be unable to learn. For example, if they are unable to receive information, they cannot learn. A surprisingly large percentage of the population (and especially the mature population) as a great deal of difficulty accepting information. Put simply: they don't listen.

The level of maturity of the "listeners" is less relevant than the semantical ability of the "teacher." Jesus could address any group: whether they wanted to listen (learn) or not is a separate issue.

Again, this is untrue. The number of people who misinterpreted Jesus almost certainly outnumbers the number of people who 'got it'.

It's a fascinating phenomenon, probably very difficult to replicate in a controlled lab environment, but when people converse, often what they hear has nothing to do with what was said. It is very common for people to jump straight to the assimilation stage without having gone through the receiving stage.

What happens is something like this: people hear noise containing certain

catch-words or phrases. They search their memory for items of previously acquired knowledge containing the same catch-words or phrases. This knowledge is then substituted for the content of what was actually said.

For example, the lecturer says something like, "Beauty is individuality actualized to perfection". The listener hears: "beauty... individuality... perfection" Searching his memory (unconsciously, in most cases), he retrieves: "Beauty and individuality are perfection". Transposing this memory onto the new content, he now believes that the lecturer said that individuality is a form of perfection.

Theory in education today places a significant proportion of the onus for successful communication on the teacher. This is part of the reason why teachers who lecture are publicly chastised - it is thought that they are poor communicators, or more to the point, they are not taking the effort to make themselves and their material understood. But this onus is misplaced.

The onus to learn rests primarily on the student. This is because the student must engage - and consciously engage - in the four major steps of learning (receiving, assimilating, evaluating, applying). If the student is unable or unwilling to perform even one of these stages, learning is impossible, or at best, incomplete, no matter what the skill level of the educator.

[This ends my note - I leave the rest attached below for completeness.]

Cliff Layton <RSCLayton@AOL.COM07/03/97 09:25am In a message dated 97-07-02 21:27:06 EDT, Guy.Bensusan@NAU.EDU (Guy Bensusan) writes (based on a posting by J-M. Guillemette) : << WHEN IS TEACHING ? There are (hopefully) interesting related questions; I will attempt to post a few below. When is teaching appropriate? What should be taught? Should the focus be on the three R's? Should computer literacy be a required 4th R? Should evaluation of cultures re. human needs be considered in these matters? To what extent should the level of maturity of a learner be considered in allowing the learner to determine what should be learned and how it should be learned, compared to allowing the teacher (or instituiton, or culture) to make such determinations. How should level of maturity of a learner be determined? Cliff

Participant's Opinion

If distance education design - especially on the internet - is to become relevant to the student, and cost-efficient to the teaching institution, designers are going to have to look at ways of dividing course content into much smaller chunks, to be assembled into a learning package on an as-needed basis.

Posted to DEOS-L 20 Jan 1998

Peter Faulhaber writes, *Now we want to use internet. The following course we want to offer: The student apply to the course via on online Intake form. He chooses which parts he want to learn about e.g. Word 97. The material is cut into chunks and is stored in a Database. When the student made his choice via a server the material is gathered, lay - out and send via e-mail to the student. The student can print out is fully personal learning material. We choose this option for two reasons: 1. Reading via a computer screen is still much more trying than reading a print out material. 2. The student don't have to switch between Internet and e.g. Word 97. Help is offered via an Internet site. The student can send an email to the trainer, chat to the other students, look into a FAQ and look into a Database.*

Peter's methodology is illustrative of a principle in distance education which has not been discussed to any great length on this list: customization. While there has been a lot of chat about learner-centred course design, few people have challenged the idea that the basic unit of instruction is the course.

In fact, if distance education design - especially on the internet - is to become relevant to the student, and cost-efficient to the teaching institution, designers are going to have to look at ways of dividing course content into much smaller chunks, to be assembled into a learning package on an as-needed basis.

At Assiniboine, we are designing our courses in three hour chunks called "modules". This is documented at http://www.atl.ualberta.ca/downes/naweb/am.htm By designing courses in this way, we can assemble new courses in a matter of minutes to meet the precise demands of the student, our corporate partners, or government. In a demo last week, for example, I designed an eight hour course, called "Internet Communications", in about 10 minutes by combining modules from our Computer Systems course and our English course.

Peter is using this methodology to build what are, essentially, print courses supported by email. His reasoning, quoted above, is two-fold: it's hard to read from computer screens, and it's hard (especially for beginners) to switch between two applications at once.

But I think students will find this mode of delivery limiting. True, courses can and should be supported by print material. As the Wired editors pointed out some months back, print is an unparalleled medium for high-content thought. And web designers have known for some time that users do not read web pages, they scan them. However, not all aspects of all courses are

best delivered via print media.

Computer programs are a good example of this. While it is possible to learn how to run software from a book alone (the 'Teach yourself in 21 days' series is an excellent example), it is easier to learn if you see the operations demonstrated on the screen in front of you. The tutorial in "Scientific Notebook" is a good example ("Scientific Notebook" is a mat/science document processing program; highly recommended).

CD-ROM versions of computer courses have been doing this for some time now. The program operation is captured (with products like, e.g., Lotus's "Screen Cam", another recommended product), saved as a video file (usually .avi) and stored on the CD-ROM. Such video clips are then displayed at appropriate times by, say, Macromedia's "Director".

The problem with such demonstrations, as they apply to internet delivery of course materials, is that they are much too large to be delivered reliably over the internet. Bandwidth is currently to small. This is a situation which will change rapidly. We are on the cusp of the 10 megabyte/second internet era. Additionally, file compression can reduce even large movie files to a fraction of their original size. And video streaming, while still in its infancy, is fast becoming a proven technology.

But an additional problem with the print-based / email supported model that Peter describes is that it too much resembles the traditional 'do-it-yourself' approach to distance learning. The student is viewed as isolated, essentially working on his or her on, obtaining tutorial support only on an as-needed basis. In my opinion, this factor of isolation is one of the major factors preventing distance learning from becoming much more widespread than it is today.

For education is not merely an intellectual activity, it is a social activity. The process of learning requires not only the acquisition of new information, it also requires validation and reinforcement. People need not only to know what they've learned, they need also to be told that what they have learned is socially appropriate, that the manner in which they express that learning follows community conventions. The classic case of the self-taught learner is one who - embarrassingly - mispronounces "Socrates" in a social gathering. The social dimension of learning mitigates errors in the nuances of what is learned.

For that reason, much more interaction is recommended. Communication, not only with the instructor, but also with other students, is to be encouraged. And where possible, communication in several media - voice and video, specifically, are preferred over a simple email model. Again, the technology

which supports this is in its infancy. However, like streaming audio, it is on the verge of becoming widely accepted.

As an initial first step, I would recommend supplementing your email support and web site with two key resources: a discussion list, and a chat area. Here there are many options to choose from. David Woolley's excellent "Conferencing on the World Wide Web" site will help you there. http://thinkofit.com/webconf/ Give the link a little time; it's not the fastest in the world. For comments on integrating communication into your course materials, see my "Effective Interaction and Communication in Web Based Courses" (contents page: http://www.atl.ualberta.ca/downes/cmc96/contents.htm)

One nice piece of software we are working with at Assiniboine is called ICQ (I Seek You). http://www.mirabilis.com (I think they also have http://www.icq.com running now). This program lets you define a list of friends (typically, your class) and lets you know when they are on-line. It allows you to quickly send short messages, transfer files, chat in real-time, refer URLs, and launch any of a number of conferencing programs.

But plan for more intense communications. With higher bandwidth and better compression, desk-top videoconferencing is rapidly becoming a reality. The best software I have seen for this is Microsoft's Netmeeting (http://www.microsoft.com). In addition to video-conferencing, it also allows you to manipulate a remote screen. This is very useful if you wish to demonstrate an application.

The idea behind such methods of improved communications is not only to transmit learning materials more effectively, it is also to build a web-based community. When students become a member of a community, their learning takes on a larger role in their life. Logging on, chatting with the other students, accomplishing a module, passing a test - all these things begin to *matter* to a student, not only in a learning context, but also in a social context. Achievement is reinforced when achievement takes place in a community which rewards achievement (conversely, achievement is minimized when achievement takes place in a community which does not reward achievement, or even, when it takes place outside a community at all).

What this means at your end is commitment to more ongoing resources and support for your internet courses. If you intend to market globally, plan on staffing your site with chat moderators and tutors 24 hours a day, 7 days a week. Your convenors should not only be knowledgeable in the subject area, they should also be warm, welcoming folk who encourage new students

(who will be hesitant at first) deeper into your web community.

This is not only good education (and it *is* good education), it is also good business. You are not only teaching your student a new skill, you are building a relation with that student. By drawing the student into your community, you are ensuring repeat business and tremendous word-of-mouth (one of the most powerful forces on the net) advertising.

Again, as with the course materials, your interaction and communication with the student should be as completely customized as possible. Moderators should be able to draw from your database all relevant information about the student and his or her classes. Students should be encouraged to seek out peers with similar course (module) selections and expressed interests. Corners of your site should be assigned for each of the various groups which will inevitably form. Student-generated content will greatly enhance your site's value and usefulness, and it will also increase the students' sense of belonging to the community.

Distance education in the future will succeed by emulating those aspects of traditional education which were so successful - the social aspect, the community aspect - and by discarding those aspects of traditional education which were not successful - flat one-dimensional presentations, cookie-cutter content. By providing a customized, community-based, content-rich learning environment you will provide students with much more than mere training, and will be well on the way to providing a rewarding distance learning experience.

Teaching WBT to Instructional Technology graduate students

> Um. Coding *is* designing.

Posted to WWWDEV 29 April 98

Scott Gray wrote, *HTML can be learned in one full day. If a Ph.d. can't learn HTML then that person doesn't deserve a PH.D.*

More accurately: people can learn the mechanics of HTML in one day. This allows them to publish a ream of bad web pages. Good HTML design is a lot more than merely learning the tags.

I've taught k-12 teachers HTML in one day seminars, so a PH.D. candidate should be able to handle it. To see how I teach people HTML go to *http://www.useractive.com/tutorial*

The tutorial is very nice. I would have presented the information differently, so users need not scroll so much, but that's just me. The server scripting behind the forms are elegant. I would say this is the result of many days' practise.

And ...

On Tue, 28 Apr 1998, Gary C. Powell wrote: While yes, having a Ph.D. in Instructional Technology AND knowing how to program w/ HTML and JAVA, etc. would be very marketable, I'm not sure how many of them (us) want to. Its hard to have an advanced expertise in everything. Not to mention, many designers like designing, and not coding.

Um. Coding *is* designing.

I cannot imagine someone holding a degree in instructional *technology* without having mastered, at the very least, HTML. How is it possible to design when you are unaware of the limits and possibilities of your medium?

Think about the range of topics one studies in an IT doctoral program, such as needs assessment, ISD, evaluation, qualitative and quantitative research methods, instructional theory, human performance technology, ed psych...need I go on???. Is it reasonable to expect an IT Ph.D. to also be a HTML hacker????

Yes, just as it is reasonable to expect an artists to know how to use a paint brush, or a writer to know grammar. HTML, Javascript, even Java, are now the *media* in which design occurs. They should not be viewed as separate subjects.

Nobody thought it was odd that I ought to learn at least rudimentary Latin when I was writing comprehensive exams in philosophy. This is because Latin is the medium in which many great writers worked, and in order to fully understand what they were expressing (and what they *could* express), I needed to at least get a feel for the structure and limitations of the language.

Learning

Good - even great - online teaching will not be - will never be - built - because you do not build interaction. You enter into it, like a warm bath, like a familiar suit, like a comfortable home.

Posted to WWWDEV 06 July April 1999

Scott Gray wrote:

*The ideal learning environment *should* enable the following:*

demonstration
communication
evaluation
cooperation
motivation
experimentation
creation
implementation

Um, yes, well, and:

contemplation
reflection
cooperation

... to name three more I can think of off the top of my head. More would surely follow were I think about it for any length of time.

But why would I do that?

No exclusive list of verbs will satisfy any learning requirement, nor for that matter, any learner. Each person engages the material in his or her own way.

Online learning is first and foremost about personalization.

If properly done, the time and space separation of these items are kept at a minimum and are seamless.

Why?

I like to pause between steps.

I think learning should occur in a diversity of places.

We don't need to focus and cram any more. We can distribute learning through time and space, matching the structure of learning more closely with the structure of perception.

Currently, just about every discussion I have seen on this list surrounds the

first three or four of the list above. Indeed throughout our educational system the last three (experimentation, creation and implementation) are completely neglected! Why? Tradition? Economics? I am not sure.

... and yet when I see such diverse entities as student web pages, robot sumo, matchstick bridges, student-run enterprises, online journals, and so much more, it seems transparently clear that students do indeed engage in experimentation, creation and implementation.

Looking at the courseware and student discussions is not enough. We need to look at what students are actually doing, rather than what we think they might be doing, if we are to appropriately categorize their learning activities.

It may be that teachers and course designers think it is their responsibility is to TEACH, and that TEACHING is the essence of educational activity. I personally think that LEARNING is the important educational activity and that there is a huge difference between a LEARNING environment and a TEACHING environment. Learning is a "pull" activity while teaching is a "push" activity....

No. I don't like that dichotomy. It sets up a polarization where there is none. It encourages a dualism where there is a pluralism.

Learning is a process of engagement.

It consists essentially in interactions between
- student and other students
- student and instructor
- student and learning domain
to name a few dimensions.

Learning is mediated via various modes of engagement. Some modes of engagement, such as web pages, discussions, or this list server, are computer mediated. Others occur in a face-to-face environment. Others consist in hands-on-clay, a physical interaction with the domain of enquiry.

No process of interaction is entirely 'push' or entirely 'pull'. Elements of both are always present; the nature of engagement is that there is an interplay occurring.

Engagement is a transient process - interaction ebbs and flows, at times intense, at times slow and meditative, at times absent. The need for interaction, and the nature of the interaction - push, pull, online, hands-on - varies through time and space, and with the state of the learner and the

environment.

To suppose that one picture of learning works for all people at all times and in all places is folly!

I won't - yet - enter into the 'learning styles' debate which is raging on DEOS, except to observe, that even in my own life, I want one learning style in the morning and another in the afternoon. I am prepared to engage the material in a slow, measured pace on a Monday, at a more frantic and interactive pace on a Tuesday, and in a quiet, receptive way on a Sunday.

Examining a course won't tell us whether 'higher-level' learning is taking place. Learning - even online learning - occurs as much outside the learning domain as within the course or instructional context. To say that students are not experimenting, creating or implementing, we should have to examine all aspects of their lives.

...When the web started I expected to see amazing and brilliant learning environments in all sorts of disciplines. I was convinced that the web is the educational revolution we've been needing for some time. But no. Instead we the same old crap. Students passively sitting in front of computers watching Java applets show them something or reading web page after web page, or sitting on chat sites or bulletin boards communicating with three words sentences.

But - you didn't expect internet architecture to supply the components of learning you feel are missing, did you?

That's like expecting ATM technology to replace the missing dollars in my bank account, or like expecting my electronic organ to fill in for my tone-deaf ear.

Good - even great - online teaching will not be - will never be - built - because you do not build interaction. You enter into it, like a warm bath (shades of McLuhan), like a familiar suit, like a comfortable home.

The online materials are only the tools and components of online instruction. They are hammers and screwdrivers and saws and doorframes and kitchen cupboards and furnaces and wall-to-wall carpeting. They do not - cannot - constitute a home.

The pausing, the pacing, the pushing, the pulling, the selection, maybe, of this movie, that online resource, such-and-such a project -- all these occur in a dynamic fashion in the classroom, and indeed even to a large degree in

online learning.

Great teaching adapts and flows.

The more personalized, the more context-sensitive such adaptations become, the more full the educational experience becomes, the more like a home, the less like a pile of tools.

Resources and References

Some Learning Theory Background
Outline of learning styles, practises and principles. From Teaching & Learning with Internet Tools, A Position Paper, by Daniel Schneider. presented at the Workshop on "Teaching & Learning with the Web" at the First International Conference on the World-Wide Web, 1994
http://tecfa.unige.ch/edu-comp/edu-ws94/contrib/schneider/learn.fm.html

International Centre for Distance Learning
The International Centre for Distance Learning (ICDL) is an international centre for research, teaching, consultancy, information and publishing activities based in the Institute of Educational Technology. ICDL distance and online course directory contains information on over 31,000 distance learning programmes and courses mostly in the Commonwealth countries, over 1,000 institutions teaching at a distance worldwide, and over 11,000 abstracts of books, journal articles, research reports, conference papers, dissertations and other types of literature relating to all aspects of the theory and practice of distance education.
http://www-icdl.open.ac.uk/

Teaching and Learning Online
The University of Newcastle's resource for online learning and online teaching.
http://www.newcastle.edu.au/department/so/learning.htm

Composition in Cyberspace
This page focuses on the use of MOOs (primarily Diversity University MOO) and Internet discussion lists in English Composition teaching.
http://www.du.org/places/du/cybercomp.html

TheNode.org

theNode.Org is the newest incarnation of the Node website. theNode.org will be an international community of instructors, trainers, designers and administrators with a professional interest in teaching with technology. Services will support users in developing and sustaining effective education and training practices and in exploring new ways to use technologies to support their learning objectives. Individual memberships are $200, while institutional memberships are a lot more. Who knows? It might work.
http://thenode.org/

Creating an online teaching space
This paper reflects on the development of an online web-based teaching (or online learning) site and reports on the stages of development from early beginnings on a local area network to a suggested model online teaching space. Graeme Hart The University of Melbourne. Australian Journal of Educational Technology 1996, 12(2), 79-93.
http://cleo.murdoch.edu.au/gen/aset/ajet/ajet12/su96p79.html

Course server software for online teaching
List of instructional management systems - IMS - with short reviews. Useful compilation.
http://cleo.murdoch.edu.au/teach/guide/res/examples/course-servers.html

Course Server Softwares for Online Teaching
Nice list of two dozen IMS systems for online learning course delivery, with links. By Rafael H. Scapin.
http://www.if.sc.usp.br/~rafael/wbt.htm

Teaching at an Internet Distance Seminar
This important research report provides an excellent overview of online learning and some cogent observations about its potential and limitations. Still headily conservative, the authors tend to target online learning toward niche markets. But the research is thorough, the writing clear and the thinking first rate. University of Illinois, 1999.
http://www.vpaa.uillinois.edu/tid/report/toc.html

People who live in glass houses shouldn't throw stones
A response to Teaching at an Internet Distance: The Report of a 1998-1999 University of Illinois Faculty Seminar. Rory McGreal's defense of online learning. January 22, 1999.
http://teleeducation.nb.ca/articles/ftf/index.html

Role Play Simulation for Teaching and Learning
Fairly basic - and appealing for graphics - this site illustrates the use of

simulation in grade school environments.
http://www.roleplaysim.org/demos/

Methodological Issues in the Content Analysis of Computer Conference Transcripts
The paper is designed to assist researchers in using content analysis to further the understanding of teaching and learning using computer conferencing. By Liam Rourke, Terry Anderson, D. R. Garrison and Walter Archer, International Journal of Artificial Intelligence in Education, 2001, 12
http://cbl.leeds.ac.uk/ijaied/abstracts/Vol_12/rourke.html

Will You Still Be Teaching In The Twenty First Century?
Quite good article looking at the impact of computers in education. With Noble and Margolis, the author sees the trend toward computerizing learning as an attempt to commodify learning. He argues that this is an inappropriate use of technology, and that computers should be used instead to facilitate cooperative learning. By Theodore Panitz, Cape Cod Community College
http://www.capecod.net/~tpanitz/tedspage/tedsarticles/teaching.htm

Wireless: Changing teaching and learning Everywhere Everytime
Description of the introduction of wireless networks to schools and colleges. By Carl Berger, Educause: New Horizons, Jan/Feb 2001
http://www.educause.edu/ir/library/pdf/erm0116.pdf

Seven Principles of Effective Teaching: A Practical Lens for Evaluating Online Courses
Chickering and Gamson's renowned "Seven Principles for Good Practice in Undergraduate Education" have long served educators. Now a team of scholars from Indiana University's Center for Research on Learning and Technology has adapted the seven principles to online teaching and learning. By Charles Graham, Kursat Cagiltay, Byung-Ro Lim, Joni Craner and Thomas M. Duffy, Technology Source, march/April, 2001
http://horizon.unc.edu/TS/default.asp?show=article&id=839

Teaching
A summary of my teaching experience.
../../me/teaching.htm

Teaching and Learning as Multimedia Authoring: The Classroom 2000 Project
Don't let the title fool you: the is a broader paper than is implied. Interesting and very comprehensive report about a trial using ubiquitous computing in a classroom, including electronic boards, laptops, wireless communication,

and more... by Gregory D. Abowd, et.al., September, 1996. Yeah, 1996. http://www.cc.gatech.edu/fce/c2000/pubs/mm96/index.html

The New York Times Launches College Times Web Site at NYTimes.com/college
By organizing the news into over 200 academic disciplines, the site allows college students and faculty to more easily locate information related to their specific fields of study and integrate New York Times content into their daily academic lives. The Faculty section includes Teaching with The Times, a set of free curriculum guides that offer innovative ideas about how to augment course content with The New York Times and suggest direction for lectures, discussions, research essays and tests in various subject areas. April 4, 2001. http://www.nytimes.com/2001/04/04/college/TOUR.html?ex=1064635200&en=1a3eee937c370f8f&ei=5034

May the Course Be With You
Good article which raises the issue of the ownership of online lectures. Gives an example of a Harvard professor who sold his lectures to another school and then was accused of teaching for another institution without permission. By John Palatella, Lingua Franca, March, 2001. http://www.linguafranca.com/print/0103/feature_strikes.html

Guide to the Animal Kingdom for Students and Educators
Comprehensive set of online resources designed to assist in the teaching of biology. Free. http://www.biosis.org/free_resources/classifn/classifn.html

The Hawaii Online Generational Community-Classroom
Results indicatethat students go through 3 phases during the semester: (1) Becoming information literate; (2) Becoming self-directed autonomous learners; (3) Exercising leadership and inventiveness. Within each of these phases, evidence reveals student behaviors in three behavioral areas: affective (e.g., improving self-confidence), cognitive (e.g., acquiring content and vocabulary), and sensorimotor (e.g., acting as a generational participant). By Leon James, conference on Teaching in the Community College(Electronic) Journal (TCC-J), Trends and Issues in Online Instruction, Spring 1997. http://www.soc.hawaii.edu/leonj/leonj/leonpsy/instructor/kcc/kcc97.html

Building a Learning Community Online in a Second Year Computer Science
This case study illustrates that in order to exploit more fully the potential of online technologies in educating learners for meaningful and effective participation in the emerging knowledge economy, the university community which includes both teachers and students needs to make major innovations in its teaching and learning approaches respectively. The focus needs to shift from content delivery to the process of learning the content. It

means building a learning community online and this is implemented by adopting the collaborative learning model as the underpinning educational framework for the online environment. By Mary O'Sullivan and David Miron, ultiBASE, July 14, 1999.
http://ultibase.rmit.edu.au/Articles/online/sullivan1.htm

Establishing a Community of Learners
This background paper gives arguments and support for the idea that one of the best ways forward to accomplish IT's effective use is by the creation of a community of learners. This community of learners may overcome problems of teacher professional development and the technophobia felt by some teaching staff and principals. By Des Wilsmore, IFETS, April, 2001.
http://ifets.ieee.org/discussions/discuss_april2001.html

Cycle of Improved Practice
The Cycle of Improved Practice is a database of more than 130 selected Canadian resources for post-secondary educators interested in using technology to improve teaching and learning (this description from the Node http://www.node.on.ca, who featured it in today's Networking email).
http://www.c2t2.ca/cycle/

School Testing Bandwagon Spawns Web Coaching Sites
OK, school testing may be a bandwagon, but web coaching is not. These sites prepare students for standardized tests. They are the first edge of the wedge that will redefine learning - after all, if the student is actually learning from the coaching service, why should they be wasting their time in a school? And for that matter (it will be argued) why should the school get all the taxpayer support went he coaching service is doing the actual teaching? Like I said, thin edge of the wedge. By Bonnie Rothman Morris, New York Times, May 24, 2001
http://www.nytimes.com/2001/05/24/technology/24TEST.html

The Spirit of Invention: Edging Our Way to 21st Century Teaching
This article lists four 'edge happenings,' that is, developments on the edge of the field that will have a ripple effect throughout. The first two - laptops and ubiquitous computing, and wireless and mobile computing and Networking - aren't very new and aren't very controversial; they will wash over education very shortly. The next - e-books and digital textbooks - is the subject of much controversy, as people will resist renting textbooks and buying special readers. And the last - moving to human-centric computing - is here now. By Judith Boettcher, Syllabus Magazine, June, 2001.
http://www.syllabus.com/syllabusmagazine/article.asp?ID=3687

XanEdu to Supply Content for Microsoft's New Office XP

XanEdu, which has a huge library of subscription based educational content (see my article in Technology Source, July, 2001), has announced that it will be a content provider for Microsoft's Smart Tag system... what this means is that people will be able to access, for a fee, journal articles, teaching multimedia, and more, directly from their operating system (when the link expires, and it will, search XanEdu's news archives at http://www.xanedu.com/news_archive/smarttags.shtml) http://www.xanedu.com/news.shtml

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Copyright - Wrong!

The doctrine of fair use is under attack through new legislation and lawsuits. The author argues that this could undermine teaching and learning. Imagine this: Register of Copyrights Marybeth Peters told American Libraries that "pay-per-view is not bad. It may be a better policy for libraries that don't have many researchers using their resources. Subscriptions can be real costly, but pay-per-view can make them affordable." By John Palatella, University Business, June, 2001.
http://www.universitybusiness.com/0106/feature.html

Media Literacy Teachers' Toolkit

Searchable database presents Teaching Units, Lesson Plans, Activities, Handouts and other tools from teachers and experts around the world. MediaChannel, June 20, 2001.
http://www.mediachannel.org/classroom/toolkit/

Preventing Academic Dishonesty

In the light of recent discussions of cheating in online courses, this guide, although focused toward classroom learning, provides a handy set of principles to prevent cheating in the first place. From Tools for Teaching, Davis, B.G., Jossey-Bass; San Francisco, 1993.
http://uga.berkeley.edu/sled/bgd/prevent.html

Ten Great Activities: Teaching With the Newspaper

Ten terrific classroom activities that use the newspaper to teach all sorts of

valuable skills -- including reading and writing for meaning, map reading, media literacy, sequencing, word meaning, and math.
http://www.education-world.com/a_lesson/lesson139.shtml

Five Times Five: Five Activities for Teaching Geography's Five Themes
If you are looking for activities to teach the five themes of geography, we've got them for you -- 25 of them, in fact! You'll find activities for students at every level! SITE REVIEW:
http://www.education-world.com/a_lesson/lesson071.shtml

Why Can't Johnny Respect Copyrights?
Teaching respect for copyright and intellectual property is part of a proposed mandatory curriculum in the U.K. But this particular bit of a child's moral education sidesteps the fact that the morality of current intellectual property legislation is highly contested. "Young people, and other people, believe in a version of the copyright law that is different from the one now on the books. Many of them believe, for example, that if you buy a CD, you buy the right to share it." By Alan Docherty, Salon, July 16, 2001.
http://www.salon.com/tech/feature/2001/07/16/abc_ip/index.html

State panel rejects teaching Creation; Science standards endorse evolution
- Pittsburgh Post-Gazette -
http://www.post-gazette.com/regionstate/20010712evolution0712p4.asp

Professors use the Web
to publish portfolios of teaching techniques
http://www.chronicle.com/free/2001/07/2001071902t.htm

Lexical Approach to Second Language Teaching
The ERIC Clearinghouse on Languages and Linguistics has published a new ERIC Digest regarding the lexical approach to second language teaching. This Digest provides an overview of the methodological foundations underlying the lexical approach and the pedagogical implications suggested by them. By Olga Moudraia, June, 2001.
http://www.cal.org/ericcll/digest/0102lexical.html

Validating Scholarship in University Teaching
This detailed report (115 pages, PDF) looks at the possibility of establishing a peer review system for ICT based teaching and learning resources or learning objects. It suggests that such a scheme would be a good idea and provides a comprehensive framework for setting one up. Excellent reading. By Peter Taylor and Angela Richardson, Griffith Institute for Higher Education, April, 2001.

http://www.detya.gov.au/highered/eippubs/eip01_3/01_3.pdf

An Instructor's Guide to Live E-Learning
It's amazing how closely live e-learning resembles live in-class learning, at least to judge by this guide for live e-learning leaders. At least, these common sense rules have always guided my own in-class teaching. That said, online instructors will find this to be a handy, if brief, checklist of useful tips. By Chrstine L. Duckworth, Learning Circuits, July, 2001.
http://www.learningcircuits.org/2001/jul2001/duckworth.html

Freedom Forum
announces journalism-teaching awards
http://www.chronicle.com/daily/2001/07/2001072706n.htm

LESS WHINING, MORE TEACHING
A devoted part-timer recommends that adjuncts adopt a new attitude. "Adjunct lecturers will not succeed if they perpetually think of themselves as victims of the academy, or the market, or capitalism, or university corporate interests, or whatever," says Jill Carroll. You can submit questions now for a
http://www.chronicle.com/free/v47/i47/47a01201.htm

The HIV/AIDS epidemic in Africa may be having a greater effect on teaching than any other profession
-- and could even wipe out the profession within 10 years. According to a recent global conference on education, up to 40 percent of secondary school teachers in Botswana are infected. Zimbabwe, South Africa, Swaziland, Malawi, and Zambia also have high rates of infection.
http://allafrica.com/stories/200107270096.html

Creative Strategies for Teaching Language Arts to Gifted Students
,
http://ericec.org/digests/e612.html

How to Teach Online
Another one of those handy guides for people about to enter the world of teaching online. Reasonably good, but takes an 'online as just another classroom' approach. ByJudith M. Smith, E-Learning Magazine, August 1, 2001.
http://www.elearningmag.com/August01/teachonline.asp

Web Accessibility
Presentation notes from a web accessibility session at the Conference on Distance Teaching and Learning at University of Wisconsin-Madison. Good

overview, many links: an excellent starting point for people looking at accessibility issues. By Alice Anderson and Christopher Blair Bundy, August 9, 2001.
http://wiscinfo.doit.wisc.edu/ltde/access/2001conference/

Online Resource Page: Using Technology to Enhance the Teaching and Learning Process
This item leaves me with more questions than answers. At first glance, it's a straightforward description of the University of Pheonix's online course design. But then notice the tight partnerships with publishers and eBook readers. And then notice the references to Csource, via the use of little logos, as "an exciting new product and the new standard for delivery of student and faculty materials." The logo is almost impossible to read, there are no links, and an exhaustive web search turned up nothing. So... what gives? By Jane McAuliffe and Education Marla La Rue, International Forum of Educational Technology & Society, 23 August, 2001.
http://ifets.ieee.org/discussions/discuss_august2001.html

A Web-Based 'Book' for Introductory Psychology
Article describing the development and some uses for electronic textbooks (now often dubbed eBooks). This article is being used to provide support for the effectiveness of the University of Phoenix's new eBook program. The most interesting thing in the article is the the embedding of applications - such as study questions - in the text of the textbook. The article generally supports eBooks, but the author candidly admits to a bias, having invested much of his time and effort developing these eBooks. By Gabriel P. Frommer, Teaching and Learning with Technology, 1998.
http://www.ihets.org/learntech/distance_ed/fdpapers/1998/54.html

E-books and Their Future in Academic Libraries
Good analysis by the University of California's Ebook Task Force. Raises some technological issues but focuses on rights management, quoting one respondent who said, "Print has many rights and powers that e-books don't. We like e-books but we must not allow ourselves to be locked into technology or legal/social paradigms that impair our ability to support open research, teaching, and public discourse of our community. We will favor vendors who support open process of scholarship and long-term preservation so we will not rush into e-books." Vy Lucia Snowhill, D-Lib Magazine, July/August, 2001.
http://www.dlib.org/dlib/july01/snowhill/07snowhill.html

Impact of the Internet on Learning & Teaching
Originally launched in 1995, this site is an excellent overview of good practices in online learning and provides a nice checklist of skills and

techniques for anyone involved in online learning. Featured in this week's Scout Report. By Hossein Arsham .
http://UBMAIL.ubalt.edu/~harsham/interactive.htm

American Memory Newsletter
The Library of Congress American Memory Collection has just launched a quarterly newsletter for K-12 educators. The newsletter includes teaching ideas, feature articles and tips on how to use the American Memory collection of online resources.
http://memory.loc.gov/ammem/ndlpedu/educators/newsletter/index.html

Chapter 2 ~ Interactivity

Interactivity and Best Practices in Web Based Training

We need to be careful when tempted to convert an ordinary word such as "interactivity" into a technical term.

Posted to WWWDEV on 28 Jan 1998

Jennifer Hoffman asks, *I am finding that everyone has a different definition of "Interactivity". Some consider an HTML page with click-throughs interactive, while others feel interaction with people or some kind of artificial intelligence is required before something is considered to be interactive. My question is: What is YOUR definition of interactive in relation to CBT or WBT?*

I think that we need to be careful when tempted to convert an ordinary word such as "interactivity" into a technical term. This happens a lot in academic circles, and tends to produce a discussion which generates much heat but little light.

"Interactivity" is, in common usage, the capacity of a system to enable interaction between two or more entities. I deliberately use vague terms such as "system" and "entity", because ordinary usage is not more precise.

It is because our common understanding of the term is so vague that it is used by those promoting various products to state that their product is "interactive". Approaching such a dialogue, we should ask "How is such-and-such a product interactive" instead of asking "What definition of 'interactive' are they using" (following this approach would in general produce much light, and much less heat, than today persists in academic

circles).

When we ask, "How is such-and-such a product interactive", we are asking for specification of two major elements, with a focus on the second:

1. To what sort of system are we referring? and
2. What (and how many) entities interact by means of such a system?

Any system which is based in a computer is a computer-based system (a truism about which I will *not* boast to my grandchildren). That said, computers are by no means the only sort of system which may generate interaction. "Interactive television" is a system whereby the interaction is generated via video and audio signals. "Interactive Media" is a system whereby the system is one which falls under the classification of "Media" (another usefully vague term).

In this discussion, we are taking almost exclusively about computer-based systems. Thus, we are taking about computer-based interactivity. All forms of interactivity in which the mediating agent is (or is based in) a computer would fall under this rubric.

Where the debate turns is on the question of what sort of interaction is being mediated. The sort of interaction is dependent on the nature of the entities which interact. Obvious candidates surface:

human-to-human computer-based interactivity
human-to-computer computer-based interactivity
computer-to-computer-based interactivity

Examples of each sort abound:

Human-to-human computer-based interactivity:

- normal email, mailing lists such as this, discussion lists, news groups, ICQ and other paging programs, web- and other internet based chat forums

Human-to-computer computer-based interactivity

- email auto-repliers, Javascript quizzes, auto-marked tests, web sites, video games

Computer-to-computer computer-based interactivity

- web spiders and crawlers, DNS servers, Time servers

If further distinction between types of interactivity are needed, we can further subdivide among other sets of classification:

1. Time: asynchronous vs synchronous interactivity, and

2. Number: one-to-many, one-to-one, many-to-many

3. Location: proximate, distant

I am also looking for information on best practices using the following tools in WBT. When is the best time to use them? Do your students need training? etc..

In general, the approach I prefer to follow is to identify different types of interactivity required, and then select one tool for each type of interactivity. In an on-line learning environment, it is likely that many sorts of interactivity would be required, just as is the case in a regular classroom.

Consider the sorts of interactivity which occur in a classroom:

One-to-many human-to-human human-based interactivity

- teacher lectures, student presentations

One-to-one human-to-human human-based interactivity

- personal help, interviews

Many-to-many human-to-human human-based interactivity

- class discussions, the general melee which precedes and follows classes (hey, this is a valuable part of the learning experience: some of my deepest lessons were learned in the general chatter before and after class)

One-to-one human-to-human sport-based interactivity

- (by 'sport' I will include games) - tennis matches, chess matches (again, for me, a very formative learning activity)

One-to-many video-to-human movie-based interactivity

- videos, movies, etc, in which the student is expected to respond or react in some way (to be contrasted to recreational television, in which no response is required)

And so on... you get the idea.

To determine which tools are best used in which context, it is useful to enumerate the forms of interactivity which would be employed in a traditional classroom setting in which a given subject is taught. Then, considering the limitations of the traditional classroom and the potential of current technologies, examine ways in which traditional forms of interactivity could enhance existing forms of interactivity toward the promotion of learning objectives.

* *Email*
is one-to-one human-to-human computer-based interactivity, asynchronous (except mailing lists, which are one-to-many, or even many-to-many)

* *Bulletin Boards*
are many-to-many human-to-human computer-based interactivity, asynchronous

* *Chat Rooms*
are many-to-many (though, on occasion, one-to-one or even one-to-many) human-to-human computer-based interactivity, synchronous

* *Web Pages*
are one-to-many human-to-computer computer-based interactivity

* *Graphics*
are one-to-many human-to-computer (though, of course, graphics may be presented in many other media) computer-based interactivity

Regarding the best use of any of these practice: my recommendation is that the type of interaction, rather than the technology supporting it, be considered. We have experience with all of these types in other media. So we have an experiential basis from which to draw.

Consider, for example, chat rooms.

Chat rooms are, as I said, many-to-many human-to-human computer-based interactivity, synchronous. Looking at the different aspects of chat rooms, therefore, we get:

- many-to-many

- human-to-human

- computer-based

- synchronous

Each aspect of this form of interactivity poses its own set of opportunities and limitations. A logical procedure would be to enumerate the opportunities and limitations, and then examine them as a group to identify conflicts or synergies. For example:

Many-to-Many

- provides various points of view

- no single dominating force

- can be used to identify trends
etc.

Human-to-human

- reactions may be unpredictable

- reactions based on human experience

- participants have the capacity to learn through interaction (Contrast this to (almost all) computers, which do not learn through interaction)
etc

Computer-based

- may be conducted in either proximate or distance mode, or both at once

- permits multi-tasking (i.e., allows threading of other forms of interactivity - an example of this is chat touring)

- physical contact is not possible (can be either an advantage of disadvantage, depending on your purpose)

- may mask identities

Synchronous

- disallows multi-tasking (i.e., because it occurs in real time, only one discrete event can occur at any given time)

- requires coordination

Having obtained these properties, then match these with forms of interactivity desired by educational outcome (as discussed above, obtained by examining traditional classroom interactions). We would find through such an examination information like:

- chat rooms are good for free-wheeling class discussions
- chat rooms are not good for lectures
- chat rooms can be used with other media
- chat rooms should not be used for exams (I guess that one is a bit obvious) etc.

> *Thanks in advance for your feedback.....*

You now have a dissertation topic and structure. I expect credit. *grin*

Interactivity: Another Tack On It

It is useful to quantify degrees of interactivity, because such a measurement will relate also to the effectiveness of the medium as a learning tool and will relate to the length of time a viewer will spend with the resource.

Posted to WWWDEV 26 October 98

Rory McGreal defines an element of interactivity not envisioned in my earlier post, that of degree of interactivity. He defines in terms of the degree to which a user can influence the behaviour of the container, and defines three levels, low, medium, and high.

It is useful to quantify degrees of interactivity, because such a measurement will relate also to the effectiveness of the medium as a learning tool and will relate to the length of time a viewer will spend with the resource. High

interactivity learning materials are generally more effective learning materials, and viewers spend more time with them.

That said, I'm not sure that the measure of "degree to which a user can influence the behaviour of the container" is an effective measure of interactivity. Such is an outcomes-based definition, and therefore does not take into account the process of interaction between viewer and container. For example, compare a multiple-choice form and a short-paragraph form. Arguably, the latter is more interactive, since it requires more work on the part of the viewer, however, the two may be seen as equally interactive, if what follows is only an evaluation of the submitted response.

Moreover, such a definition is applicable only in cases of human-machine interaction. In cases of human-human interaction, much interaction can occur with very little change in the behaviour of either participant. Peace talks are often like that.

I think that a better measure of interactivity would be to construe it as a ratio of the amount of information exchanged between the participants by each participant. The closer the ratio is to 1:1, the higher the interactivity. The further the ratio is from 1:1, the lower the interactivity.

For example, consider a typical page turner. Assume an average of 5K per page. The act of clicking on a link will send (maybe) 512 bytes. Thus we have a 10:1 ratio (web server : viewer), which is fairly low.

Now consider a conversation between two people on a chat server. Each is typing fairly constantly, sending a lot of information. Over the course of an hour, one person sends 10K of text, while the other sends 8K of text. This ration of 10:8 is much closer to 1:1, and therefore, much more interactive than the page turner.

(Strictly speaking, such a measure of interaction should be a measure of the *information* sent each way, as opposed to a measure of the raw number of bytes. I am using byte figures to make the calculations more transparent.)

Rory's email is cited below. My comments end here.

From: Rory McGreal <rory@TELEEDUCATION.NB.CA Subject: Interactivity: Another tack on it

In describing educational materials, Educause's IMS (Instructional Management System) measures interactivity thus: Interactivity Level The level of interaction between the user and the container. Interactivity is the degree to which the user can influence the course of action or the behavior

of that materials. http://sdct-sunsrv1.ncsl.nist.gov/~boland/IMS/metadata.html The three levels are high, medium, and low. For our TeleCampus Online Course Database, which deals exclusively with online courses, we have refined this definition to the one below: Interactivity Level The default is low for courses that are based on a book or on a Web site that is like a document with some hyperlinks. A medium level course would include interactive multimedia and/or computer conferencing. A high level course would have a great deal of interactivity in nearly every lesson and/or make major use of computer conferencing, listservs or chat. For example: A correspondence course that you can do fully online by email would be classed as low as would a CBT page turner. I do not believe that we will find a definition that will be satisfactory to everyone. This can be an emotional issue. We welcome constructive comments on this measure and suggestions on how it could be improved. Is it useful? What would be more useful? Rory

Interactivity: Another Tack On It (2)

A measure of the quality of learning materials would include, first, the quality of the information transmitted, and second, the degree of interactivity afforded by the means of transmission.

Posted to WWWDEV 26 October 98

Andrew Doherty writes, *I totally agree with your comment that "It is useful to quantify degrees of interactivity, because such a measurement will relate also to the effectiveness of the medium as a learning tool". But I don't think it is as simple as equating the degree of interactivity to learning outcome (i.e. high interactivity = more effective learning material).*

And I did not and would never claim any such thing. At best, all I could say is that, all other things being equal, more interactivity tends to lead to more effective learning material. Interactivity is only *one* factor in any measure of the effectiveness of a learning activity.

*Surely you have read a book (low form of interactivity) and learned quite a lot from it? This, of course, depends on the quality of the book. Similarly, the *quality* of the interaction between web users must be considered. You primarily ignore this in the first part of your email and measure interactivity in terms of bytes of data transferred.*

I ignore this in the first part of my email because I wanted to present the concept in quanta which were easily grasped and understood by my readers. As you recognize below, I recognize that the quanta I was using were not

appropriate to the task, and a more precise set of quanta needs to be defined.

*But then in your last comment you recognise the need to measure not bytes but the *information* (and quality of information) transferred between users: (Strictly speaking, such a measure of interaction should be a measure of the *information* sent each way, as opposed to a measure of the raw number of bytes. I am using byte figures to make the calculations more transparent.) But how do we measure the quality of information transferred between users? I don't think you can if you are talking about measure the interaction between a group of students engaged in a "chat".*

If we state that the quantity of information cannot be in any way measured, then we cannot distinguish in any way between high levels and low levels of interactivity. However, since (prima facie at least) we can make such an evaluation, then there must be at some level some means of quantifying information.

This is no place for a treatise on quantifying information (if you want such a treatise, Fred Dretske's "Knowledge and the Flow of Information" is a good place to start).

But, basically, a transfer of data counts as information is it reduces the number of possible states of affairs from the receiver's point of view. The quantity of the information transferred is a function of the degree to which the number of possible states of affairs is reduced.

For example, suppose you knew that Susan was wearing a dress, and that she has in her closet a red dress, a blue dress, and a green dress. The number of possible states of affairs (relative to you, relative to Susan's choice of dresses) is three.

If someone told you, "Susan is wearing the green dress", then the number of possible states of affairs has been reduced from three to one, or 33 percent of the original.

If someone told you, "Susan is not wearing the red dress", then the number of possible states of affairs has been reduced from three to two, or 66 percent of the original.

Both sentences contain information, but clearly, the first sentence contains more information than the second.

Notice that the amount of information conveyed is relative to the receiver. If I told Susan, "You are wearing a green dress", and Susan already knew she was wearing a green dress, then I have not transferred any information, since

the number of possible states of affairs both before and after my statement is one.

Thus also we can measure the interactivity of learning systems: though of course the calculation of quantities of information is by no means as simple as in the examples just given (which is why I used a much simpler quantification of information).

Returning now to evaluating learning materials: the effectiveness of learning materials consists essentially in the amount of information such a system can successfully transfer to the viewer. The qualification, "successfully", is important here. By "successfully" I mean something like "retained by" or "can be used by" or "internalized by" the viewer.

A simple information dump would, in ideal circumstances, result in the most effective learning, because a simple information dump would result in the largest possible reduction of possible states of affairs. However, the circumstances are never ideal. It is generally not possible for an individual to internalize a simple information dump.

Generally, when a viewer interacts with the information being transmitted, that viewer's capacity to internalize the information is increased. Thus, the more interaction there is, the more information may be successfully transmitted. For example, if I simply receive a stream of information, I may be able to retain 10K bits of information. However, if I interact with that information, I may be able to retain 20K. The amount of information an individual may retain varies with age, experience, and level of education.

Thus, a measure of the quality of learning materials would include, first, the quality of the information transmitted, and second, the degree of interactivity afforded by the means of transmission.

By "quality of information", I mean the ratio between data which (in ideal circumstances) reduces the number of possible states of affairs for the viewer, and the data which does not reduce the number of states of affairs. Or to put the same point another way, the ratio between the data which is new to the viewer, and the data which is not new. Or to put it another way, the ratio between signal and noise.

A high degree of interaction is of course insufficient for quality learning materials if the data being transmitted is mostly noise. This is why undirected chat sessions are poor learning tools.

A high degree of information without interaction is also generally insufficient for quality learning materials, because the quantity of

information which may be internalized is too low. This is why lectures are often poor learning tools.

Therefore you haven't provided any measure of interactivity here!

Now that's a bit harsh, don't you think?

Interactivity: Another Tack On It (3)

Greater interactivity tends to increase time spent. Yes, there may be counter-instances. Yes, other variables are involved. But the main point stands.

Posted to WWWDEV 28 October 98

Because interactivity is a subject near and dear to my heart the ongoing discussion is of interest to me. As readers of WWWDEV know, this means email...

Dave <djaeger@GULF.NET> writes, *High interactivity learning materials are generally more effective learning materials, and viewers spend more time with them. I can't agree with this. I have developed very simple page turner (level 1 (lowest) interactivity) that was just as effective as an electronic panel simulator (level 5 (highest) interactivity). Attaching a certain amount of time to a particular level is almost impossible. A level 5 simulation exercise that has a very simple fault that the user needs to isolate could easily be completed in a matter of minutes.*

I should point out that a statistical generalization, such as I have offered, is not refuted by a single instance, such as Dave provides.

I do agree that the unlimited number of possibilities and choices a user has with higher levels of interactivity, the potential to spend more time does exist. However, it not just due to the level, but a combination of the level and strategies.

Yes. This is a good point. A video game has a very high level of interactivity. However (at least the way I play them) the time spent can be very short. The sort of interactivity demanded by a video game requires quick response time and reflex actions. Other programs, which still provide high degrees of interactivity, may require more thought and reflection on the part of the user, which would increase the time spent by the user.

None of that alters my main point, which is: greater interactivity tends to increase time spent. Yes, there may be counter-instances. Yes, other

variables are involved. But the main point stands.

I think that a better measure of interactivity would be to construe it as a ratio of the amount of information exchanged between the participants by each participant. The closer the ratio is to 1:1, the higher the interactivity. The further the ratio is from 1:1, the lower the interactivity. For example, consider a typical page turner. Assume an average of 5K per page. The act of clicking on a link will send (maybe) 512 bytes. Thus we have a 10:1 ratio (web server : viewer), which is fairly low. You forgot that the viewer had to read (take in) all 5K of data on that page. which would make the ratio 1:1. 5K of information is there to read; 5K of information was read.

No. This misconstrues the elements of the ratio I was describing. What we are measuring is the *flow* of information. The *transfer* of information from one entity to another. Knowing that there is simply 5K of data on a page tells us nothing about interactivity. Knowing that 5K was *transferred* (through the process of being read) does tell us something. The transfer of information from book to human constitutes *one* side of our ratio. The other side would be composed of the transformation of information from human to book. This would be much lower, ranging from just a few bits (page turns) to a few hundred bits (annotations).

Computer based training (one on one with the computer) and those of like form, need to have the interactivity level relate to the amount of influence the user has on the material. Now when computers become more advanced in artificial intelligence and don't require manipulation from a user, then another form of interactivity grading should be pursued.

The phrase "amount of influence" is too vague to use in this context.

As Gary Powell (I think) stated yesterday, interaction in CBT occurs if the computer learns more about the user as a consequence of the interaction. 'Learns' in this context is a misnomer - the computer is able to supply more concrete data to open variables related to this particular user (thus reducing the number of possible states the user could be in, from the computer's perspective).

But "influence" suggests further that the computer needs to act on this information. Not so. While the information stored provides a potential for action, it may be the case that the computer acts only if certain information is provided, and not otherwise. It may receive some information it never acts on. The same is true of humans. For example, I may believe that Fred is a liar, and so treat him cautiously. I learn the new fact that Fred misrepresented his age on his driver's license. This new information reinforces my concept of Fred. Thus, I still treat him cautiously. Undeniably

I received new information, and an interaction occurred between me and the source of the information, but no observable change in behaviour resulted.

We want very definitely to separate the ideas of 'information transfer' and 'modification of behaviour'. The latter is too narrow a criterion for interactivity.

Resources and References

ServiceSoft
Designed to support synchronous customer service support functions. Includes interactivity by email, messaging or audio, and knowledge base tools.
http://www.servicesoft.com/

Enhancing Social Interaction in Computer-Mediated Distance Education
The study affirmed that students want to consistently communicate with their classmates and tutors, but the level of interactivity varied between students and their instructors.
http://ifets.ieee.org/discussions/discuss_sept2000.html

Yes, Interactivity Really Is Good for Your Site
Research results on the benefits of interactivity. By Steve Outing, E&P Online, February 14, 2001.
http://www.editorandpublisher.com/ephome/news/newshtm/stop/st021401.htm

How Interactive are YOUR Distance Courses? A Rubric for Assessing Interaction in Distance Learning
Straightforward measurement tool for defining the amount of interactivity in a web based course. Useful. By M.D. Roblyer and Leticia Ekhaml, DLA 2000 proceedings, Callaway, Georgia, June 7-9, 2000.
http://www.westga.edu/~distance/roblyer32.html

Engaging Learning
This paper looks at how we move educational technology to an environment that helps retain the inherent interest of learning. The ideal is an activity that intrinsically engages the learner, and leads them through an interactive experience that enhances their ability to solve problems. It proposes that engagement comes from "interactivity" and "embeddedness," two things I've proposed over the years, and that the elements that constitute these two components match with good learning design as well. By Clark N. Quinn, undated but probably 1996 or 1997.
http://it.coe.uga.edu/itforum/paper18/paper18.html

Creating Scalable Vector Graphics with Perl
With SVG you can create extremely sophisticated images complete with paths, layering, masks, opacity control, animation, scriptable interactivity, and a small host of other advanced features -- all using nothing more than your favorite text editor or XML tools. This article discusses creating SVG documents quickly and simply using Perl and David Megginson's XML::Writer module.
http://www.xml.com/pub/a/2001/07/11/creatingsvg.html?page=1

Back to the Future: What's Next After Learning Objects
I hate it when sites place the item on their home page like this because it means that the link will be invalid in a few days. Oh well. Read it why you can. But don't take this shallow criticism of learning object to heart. The main knock against them is that they don't provide interactivity. Sound familiar? But it's like saying that a sentence doesn't provide interactivity, or that a paragraph doesn't provide interactivity. But I'm sure that with some imagination, sentences, paragraphs and learning objects could provide quite good interactivity. By Michael Feldstein, ELearn Magazine, August, 2001.
http://www.elearnmag.org/index.cfm

Interactivity Research Studies
Survey of recent research and major approaches to the discussion of interactivity in online learning. Useful lists of expectations from interactivity and competencies needed for interactivity. By Brent Muirhead, Educational Technology & Society 4 (3), 2001.
http://ifets.ieee.org/periodical/vol_3_2001/muirhead.html

Chapter 3 ~ Online Learning

Getting Ready for Online Learning

Online learning is sweeping across the internet. Some of today's small players will in the near future be some of the big players. But the big players are done tooling up.

Posted to NewsTrolls October 29, 1998

Online learning is sweeping across the internet. And some of today's small players - Ziff-Davis (www.zdu.com) springs to mind - will in the near future be some of the big players. This will be a *huge* growth industry.

But the big players are done tooling up.

In Canada, at least, governments and institutions are already releasing major online learning resource packages. Check out the Media Awareness network, for example - http://www.media-awareness.ca - and *especially* the learning resources for teachers. I also saw an ad in the Globe and Mail recently looking for a webmaster-historian to coordinate a multi-million dollar online multimedia history of Canada site. I am aware of several additional government initiatives in various stages of development. Because governments in Canada are willing to develop these resources, this nation will lead the world in online learning.

In the United States, the corporate effort is being led by Educomm and centres around the IMS Standards and Protocols. See http://www.imsproject.org/ They are taking a systems approach: first they will describe the structure of integrated online learning, then various institutions and companies will build online learning components.

The IMS Protocols are a *very* heavy read. Fortunately, the model they describe is almost exactly what I propose in my paper, "The Assiniboine Model" - see http://www.assiniboinec.mb.ca/user/downes/naweb/am.htm At some point in the near future I expect to write a precis of the IMS specs and assumptions.

America Online just this week announced a partnership with Street Technologies to begin delivering online training. The article from the Masie Centre:

> Street Technology to Deliver On-Line Learning to AOL Customers: In another indication of the growth of the commercial sector of On-Line Learning, Street Technologies today announced that they have been selected by AOL to be its primary anchor tenant for delivering online tutorial learning to its 14 million members.
>
> "AOL focuses on consumers, as well as the small business market. Street's extensive catalog was seen as having applicability for both segments, and as a result, can be seen in the Computing Channel for individual consumers, and on the WorkPlace Channel for small businesses that need day to day support. Users can also access the tutorials using Keyword: Computer Tutorials.", said Steve Gott, Vice President of Street Technologies.
>
> Streets' Internet learning business model allows corporations

to pay only for the courseware (pay-as-you-go), hosting and administration reporting are included free of charge. For more information see http://www.streetinc.com or http://www.learninguniversity.com.

In a similar vein, most of the major computer companies are entering the market with major educational initiatives. Microsoft's is the most prominent of these: see http://www.microsoft.com/education/ Content providers, such as Disney, are also moving into education. See http://www.disney.com/EducationalProductions/index.html

The publishers have been the slowest to get into the market. They want to continue selling books, and have designed educational sites intended to supplement their books. In my opinion, they are making a major strategic blunder. See http://www.mhhe.com/

My main point: the corporations are *already* in the field. They have spent the last 18 months getting ready. The marketing push has started and they should be a dominant force within 12 months.

Just as educational institutions today by-and-large do not produce textbooks (the exception of university presses is noted), so also institutions of the future will discover that they are not willing to invest the staff and capital in the equipment, software and training required to produce online learning materials.

It is important to keep in mind that online learning materials of the future will be at least as complicated to produce as CD-ROMs or videos are today.

The production of an online learning material will be the result of a team process. At Assiniboine, we often use the analogy of a major motion picture when describing our various roles. This chart might prove useful:

Major Motion Picture	**Online Learning Resource**
Executive Producer	Department Chair or Manager
Producer	Project Coordinator
Director	Instructional Designer
Screenplay	Course Content Authors
Actors	Online Instructors
Director of Photography	HTML Author
Editor	Editor / Wordsmith

As in major motion pictures, the Executive Producer is the liasion between the people who actually put the project together, and the people who invested in, and ultimately own, the production.

Above we talked explicitly about 'curriculum design'. As the table above shows, there is no 'curriculum designer' per se. This is because in the production there is no curriculum design per se. Insofar as there is curriculum in an online resource, it is an *emergent* property, the result of the interaction of the content author's work and the instructional designer's work.

We need to keep in mind that online educational resources are *distinct* from online courses. An online course is an assemblage of online learning resources supplemented with discussion and personal communication.

Here perhaps a curriculum may exist, depending on the environment in which this learning is offered. Such a curriculum would be designed either by the individual instructor, an institutional or divisional curriculum team, or an external agency such as a Ministry of Education. Such a curriculum would be expressed in terms of learning objectives, which in turn would reflect an associated skill set felt to define the course or program of studies in question.

I think that most curricula per se will be owned by institutions, insofar as they state institutional requirements for learning. At the university level, where there is considerably more autonomy for individual instructors, curricula may be owned by instructors themselves, depending on university policy and the collective agreement.

It is important to keep in mind that curricula, as I am describing them, do not apply to *courses* per se. Rather, they are best described as defining *competencies*. Attainment of an educational level, say, 'Senior 4', will be granted if the student demonstrates achievement of several core competencies, in addition to a number of optional competencies. A competency, in turn, is defined by a curriculum as described above.

When a student desires to attempt a competency, a sequence of learning activities would be designed for that particular student. These learning activities would be assembled by the instructor and presented for ratification by the student. With the instructor's assistance, the student would then proceed through those learning activities, demonstrating competency through a series of tests or assignments.

For example: suppose one competency for Senior 4 is in the area of internet

communications. This is defined by a curriculum which includes (among other things), 'sending email', 'reading email', 'forwarding email', replying to email', and 'printing email'. Jill decides to attempt this competency. She has already passed the 'sending email' and 'receiving email' in other courses. She decides she wants to challenge 'printing email' ("How hard can it be?", she reasons) and to take a programmed course of studies in 'forwarding email' and 'replying to email'.

The instructor, upon receiving this request for a course of studies, assembles a learning program:

Senior 4 Email for Jill

- Challenge Test: 'Printing Email'
- (if the challenge is failed) - Learning Resource - "How to Print Email" by Harcourt and Brace (usage learning fee: $1.00)
- Learning Resource - "Replying to Email" - by MIT Press (usage learning fee: $2.50)
- Interactive activity: email practise (resource: Omega Conferencing System, Pegasus Plug-In emailler, usage cost: $5.00)
- Learning Resource - "Forwarding Email" - by MIT Press (usage learning fee: $2.50)
- Challenge Tests: "Forwarding Email", "Replying to Email"

This of course is a very skeletal description.

This program of studies is entered into Jill's account; it appears on her desktop as a course of studies, which she completes at her own schedule in a learning centre. The learning resources and tools are automatically available to her, embedded, as they are, into her learning system. The publishers involved autobill the institution when she accesses them; she (or her sponsor, or the government) in turn is invoiced a single fee for her entire course of studies.

The *curriculum* as traditionally defined is Jill's course of studies, listed immediately above. But the curriculum in such a case is very transient. It comes into existence when Jill begins her work in Senior 4 Email and ceases to exist when she completes her studies.

The instructor has performed a very useful and important task. But what he has *not* produced is something which can be packaged and sold later. Thus, the question of who 'owns' Jill's individual curriculum doesn't arise.

1998 TechLearn Annual Report on Learning & Technology

TechLearn Trends, from the Masie Centre, 1998 report of trends in the online learning industry. Their summary, with annotations.

Posted to WWWDEV 05 November 1998

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Editor's Note: the archive program butchered the indents.
However, for the most part, the bulleted comments are
Masie's, while the non-bulleted points are mine. -SD
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TechLearn Trends, from the Masie Centre, has just released its 1998 report of trends in the online learning industry. Most of what they report is consistent with my recent paper, "The Future of Online Learning". Thus, I forward their summary to you, with annotations (always indented).

FROM: Elliott Masie, The MASIE Center RE: 1998 TechLearn Annual Report on the Learning & Technology Industry

Each year we issue a "bullets of importance" summary on the key trends, issues and technologies at the core of the learning and technology field. These bullets will be at the core of the TechLearn '98 Conference to be convened in 11 days in Orlando, Florida (http://www.techlearn.com) We will issue a manuscript expanding on these bullets in December 1998.

1. Major Trends in Learning & Technology

* 92% of large organizations are implementing some form of network (intranet, internet) training in 1999.

* 41% currently have placed at least one course, mainly from external content vendors, online for employees.

(My annotations are always indented, like this.) In my opinion, this first trend highlighted by the Masie centre is the key trend of 1998. It points on the one hand to the privatization of education and especially training. But it also points to the much more diverse market for education. Institutions - such as my own Assiniboine Community College - will feel a push to cater to corporate clients for in house training. Failure to do so will leave a growing market segment to private interests.

* 516 products, systems and new service offerings are now on the market for on-line and technology mediated learning.

And only a few of them are complete course solutions. Course content is 'plugged-in' to these systems; others of these products are in turn 'plugged-in'

to course content.

* Collaboration (real time and asynchronous) capability is rapidly growing as a component of learning technology and content offerings.

The need for interaction has been highlighted over and over again in essays and list server postings.

* Organizations are focusing on two parallel tracks: technology for administration of training and technology for content delivery and process. These two tracks are often separate and unrelated projects.

They are separated mostly for security purposes, and also because the people creating the courses are generally not directly related to the institution's administrative function.

Watch for the development of an instrument - such as Firefly's 'passport' - which acts as a mediating agent on behalf of users between these two elements.

* Knowledge Management is on the radar screen of most major corporations.

* The conversation has shifted from content delivery and management rather than authoring, reflecting an increasing outsourcing of the authoring process.

By 'authoring' they mean the rendering of content into a computer format, such as HTML, or Flash/Shockwave, etc (because systems which produce these formats are called 'authoring systems').

This is consistent with my prediction that fewer and fewer instructors will be producing their own courses. Authoring systems, such as Director, require a major investment in time and effort to master, and most teaching faculty are unable to commit the resources needed to produce a high quality product. This is especially the case in view of the comparative cost of hiring an external contractor to do the work (or, in larger institutions, hiring an authoring specialist).

* Content is the highest desire of major organizations. They are waiting for large collections of technology mediated and delivered learning from suppliers. Demand is ahead of supply in November 1998, particularly outside of the IT zone.

Because content is the scare resource, (a) companies will begin to produce content which can be plugged into a wide variety of course delivery systems,

and institutions will begin buying it.

Although there will be an initial market for out-of-the-box packages, similar to those produced on CD-ROMs, corporations and institutions will prefer over the long run content which can be customized.

* Workers are starting to have higher computing and on-line learning capacity at home than they do at work.

This trend reflects the increasing availability and lower cost of computer and bandwidth capacity.

* IS groups are continuing to place serious internal blocks to mounting on-line learning on corporate networks, with challenges ranging from bandwidth fears to unreasonable demands for charge-backs and centralized control.

This is a trend which I had *not* discussed in my paper, however, I can vouch for the accuracy of this statement. Everybody has their own favourite horror stories: e.g. posted to all staff, "The help phone line has been discontinued. If your computer is not functioning, please email computer services for help".

Institutions which learn quickly that the online environment is a *distributed* environment, one in which a fair measure of independence and control must be devolved from central administrations, will be the institutions which move ahead most quickly in the field.

* Business units are developing independent and often competitive expertise (to the training department) in the technology and learning arena.

Again, this is an indication of distributed design. Just as IS groups are under pressure to cede control, so also are training departments under a similar pressure.

A key question: What do trainers do when everyone manages their own learning?

* Core training processes are now emerging as components of learning systems and technologies: mentoring, coaching, continuous assessment, diagnosis, needs analysis, contracting, remediation and collaboration.

Yes. A radical fragmentation of the learning function is under way, though oblivious to the vast majority of training staff. It is important to note that while we are seeing the leading edge of this trend in the corporate arena, that

it will permeate the entire educational arena.

It would not be unreasonable, for example, to see a student select his or her own mentor from a world-wide pool of potential mentors, and to not depend on his or her own educational institution to provide that. Additionally, the coaching role will be filled by people in one's own community, and not by a professor or lecturer. Assessment and teaching will diverge into separate functions. &c.

Educational institutions will have to see themselves playing the role of *service* agencies, providing these supports for learning, rather than as repositories and dispensers of knowledge and wisdom.

2. Drivers in Organizational Approaches to Learning and Technology

* Reduction of cycle time.

Yes. This theme will recur. Next year's meme in online learning could well be RAD - 'Rapid Application Design'. It is not unreasonable to expect course design to occur in the space of weeks, even days (rather than the months or years it now takes) and for the shelf life of a course to be months, not years. As techniques improve, course development will occur on the fly, on an as needed basis, and shelf life will cease to be a useful concept.

* Globalization and enterprise wide delivery of consistent training content.

With local or regional customization.

* Addressing the non-instructional costs of training (travel and lodging).

* Greater modularization and just-in-time capacity for the delivery of learning to the workforce.

See RAD, above.

* Extending the reach and time impact of instructor led sessions.

* Desire to choose from best of breed training and learning suppliers on a case specific basis.

Again, this harkens back to the idea that learning resources will be purchased from suppliers and plugged in to course materials.

* Need for performance support capability at the point of work, shifting

learning to work environment.

In high performance customer support areas (e.g., an airline registration desk or corporate switchboard), data retrieval and learning will essentially merge into something analogous to today's 'HELP' function in computer programs.

It will occur to someone at some point in the near future that one does not need a computer program in order to have a HELP function; that the techniques and technologies of HELP functions could as easily be applied to world geography as to Microsoft Word.

The topic-specific HELP function will in turn connect to more comprehensive learning modules, learning communities, and educational resources as were listed above, with learning and the provision of resources provided (and paid for) on an as needed (and as desired) basis.

* Learners are experiencing training alternatives outside the workplace.

We used to call that 'reading'. But reading is entering the age of multimedia.

* Financial officer support for alternative approaches to allocating training investments.

* Desire to drive most training transactions to browser based processing.

Because it is platform independent. A browser can connect to learning materials from any number of sources. Beware, and do not build proprietary learning systems, either at the server end, or (especially) at the client end.

3. Technologies on the Learning and Training Cutting Edge and Radar Screen

* Content Production: Template based development

Part of RAD.

* Content Production: Shifting content "authoring" to subject matter experts

This contradicts a point above, and I will stick with the point above. Subject matter experts will produce content, yes, but the rendering of that content will more and more be handled by authoring professionals.

* Content Production: Rapid development (hours and days vs. weeks or months) * Content Production: Reusable and redeployable content in object format * Content Production: Learning "clip art" from suppliers * Content

Formats: Streaming video and audio * Content Formats: Annotated books for learning processes * Content Formats: Learner input or control of scope and sequence * Content Formats: Multi-language and learner tracks

The content formats listed here are all of the 'build-once, plug-in, and re-use' variety, essential for rapid development.

* Management Systems: Linkage of training management to enterprise wide systems * Management Systems: Complete on-line training registration, marketing and administration

Yes. But watch for such functions to operate as distinct entities with mediating systems in between.

* Management Systems: Single storefront for corporate learning

And for community learning.

* Technologies for 1999: Form factors such as handheld (palm) computers and hybrid * Technologies for 1999: Increased push to browser based and push components * Technologies for 1999: Collaboration and communities of practice supported * Technologies for 1999: Voice and speech recognition and input * Technologies for 1999: New fixed media formats and hybrids (e.g.. DVD)

These technologies assume increased bandwith and processing power, reasonable assumptions.

* Business Models: Component reselling of content from training providers

Yes.

* Business Models: How to develop on-line training in a profitable fashion

Well, it's *not* going to be by spending development money on courses or course components which can only be used once. An institution which spends eight months and $80,000 developing a course which can only be offered in one format, for a limited time, will find itself out of the online learning game.

Build course *components* first. Build courses from components.

Reduce. Reuse. Recycle.

* Business Models: Advertiser supported learning

This model is iffy.

* Business Models: Emergence of consolidators and reseller channels

Yes. Today's traditional institutions, such as colleges and universities, will follow this model, because most of them will not have invested in the technology and techniques required to produce content.

* Topic Areas to Watch: Linked use of on-line learning for customers with e-commerce

Yes. The Masie centre is *especially* astute to have picked up this trend (I haven't seen it in wide currency at all).

Let me explain this concept by means of an analogy:

As a personal project, I developed a site about the City of Brandon. As part of this site, I provided links to every website in the city. As there are more than 500 websites, I began to agonize over how to organize these links.

Most such sites arrange their links sectorally. For example, they would place government under one heading, education under another heading, industry under another, and so on.

I decided to arrange the links by *topic*. Thus, for example, I put all the links about hockey in one area, all the links about coffee in another, and so on.

The reason I did this is that I wanted to produce topic-specific cross-sectoral interest areas. Thus, residents of Brandon who were interested in hockey could go to one place and find the Brandon Wheat Kings page, the Brandon University hockey page, local arenas and community centres, a local hockey pool site (sadly discontinued), hockey equipment dealers, a hockey-based newsletter, and so on.

Online learning will integrate itself more deeply into such sites. It will be seen as desirable to provide learning opportunities side-by side with commercial interests, hobbyists, fan sites, and general chatter related to a given topic. Such a site will be of more value to advertisers, who would be thus ensured of a steady stream of interested viewers. And advertising revenue (and advertising itself) will be an advantage for online education providers.

* Topic Areas to Watch: Explosive growth of K-12 homework sites

This is an interesting observation.

* Topic Areas to Watch: Virtual association and communities of practice models

Yes. I call these 'online topic-based communities'.

* Topic Areas to Watch: Social interfaces for learning * Topic Areas to Watch: "Zero-Latency" role for on-line learning and training * Topic Areas to Watch: Performance Consulting and Knowledge Management

4. Questions on Corporate and Government Learning Managers

* What should be our 3 year plan for adding learning technology to our organization?

The Masie centre is right is recommending that organizations look a bit further into the future than they would otherwise. Planning for online learning today should attempt to plan for technologies which are 3-5 years down the road.

* How do we choose the most appropriate content for each training topic or project?

One of the primary roles of instructors in the future will be in the area of content selection. Just as instructors are faced with an array of textbooks in a given field, so also will they be faced with an array of online learning resources. It would be useful to have a resource selection matrix.

* With technology changing so rapidly, what is a relatively safe investment strategy?

Don't invest in a single, massive system. Buy in exchangeable components.

* When will we have industry wide standards for learning content to protect our investment?

Within two years.

* How can we integrate our training management systems with HR enterprise wide databases?

Don't. Plan on interfaces or user agents. Stay away from the monolithic

corporate-wide system.

For example: Assiniboine Community College recently introduced Colleague, by DataTel, as its Management Information system. Colleague will handle student records, registrations, and the like.

At the same time, it also developed an independent web-based online learning platform called OLe to deliver online instruction.

It would be the height of foolishness to attempt to merge these two systems. Colleague was not designed for (and could not attempt) course delivery, while OLe would be a particularly bad platform for College finances.

Rather, the best plan is to have these two systems communicate with each other. In my own mind, I envision Colleague, on accepting a student registration in a course, sending a (coded) email to OLe containing that student's registration information. OLe would receive the email and perform the appropriate set-up for that student.

Alternatively (and perhaps as well), Colleague could write the student's registration information into the student's own user agent. The student's user agent would then present that information to OLe.

In a similar fashion, course delivery systems such as OLe will interact with remote educational content providers.

Really: plan on stand-alone systems, with mediating agents. It's the *only* way to go.

* What can be done to allow learners to operate in a high interruption environment?

Heh. Earphones?

* Are we going to need to provide technical support for learning technologies? Who provides it?

Yes. Absolutely. Especially at the beginning.

I have stated over and over - often with limited effect - that online learning *must* be supported through community learning centres. The results keep coming in, unambiguous and unanimous: if a learning centre is provided, the success and satisfaction rate is high; take away the learning centre and success is reduced while frustration increases dramatically.

* When will we be able to see highly motivating, simulation based corporate learning content?

Today. Try the learning module in Macromedia's Director.

* Show us best of breed examples of learning that we can use as role models!

As decided by whom...? There's no short cut here. Institutions wanting to do online learning are going to have to look at the models and make the hard decisions themselves.

* With the learning marketplace at high volatility, which providers will make it, merge it or disappear? * When will be able to deliver high quality video and audio to our desktops over our corporate networks?

Today. The emerging standard for corporate LANs is 100 megabytes/sec, more than enough for streaming video.

* If we build it, will they come? * Who should drive and lead the push to technology mediated learning? * What are the role, skill and attitude changes needed for training professionals?

These "bullets of importance" are not meant to be all inclusive. We will expand on them at TechLearn '98 and through TechLearn Trends in the coming months. Our industry is rapidly changing and we invite you to be at the center of the dialogue.

What Happened at California Virtual University

An analysis of the causes of its virtual demise: Colleges and Universities looking at online learning will have to understand that they are not looking at new ways of doing what they have always done, but rather, that they are looking at doing new things.

In mid-September of 1997 and with much fanfare, California Virtual University (CVU) opened its doors, launching a website which would feature "the online and distance education offerings of all California accredited colleges and universities."

The following year, state governor Pete Wilson pushed for and won $16 million (all figures in US dollars) for online learning, and of that, six million for CVU in particular. "We'll have a global audience," said Diane Vines, vice president of academic development for the California State University Institute who served as CVU's chief academic officer for the design and planning phase.

By April of 1999, the dream lay in ruins. All that will remain is a listing of online courses and programs offered by *other* California institutions. CVU's plans for an virtual library and online guidance counselling service were shelved. Staff were laid off.

What happened? The L.A. Times provides the accident report:

> Last July, Wilson turned over the California Virtual University to a nonprofit foundation, saying there was "no need" to create a new state bureaucracy. He launched it with temporary funding from private donations, hoping it would soon be bringing in revenue from ads on its Web site at www.california.edu.
>
> But when Stanley A. Chodorow arrived as the virtual university's first CEO, he found it without any financial means of support. So he asked private colleges and the three public segments--the University of California, Cal State and community colleges--to collectively chip in $1 million a year for three years while he built up advertising and book-sales revenues.

The colleges and universities balked, and CVU, with no money for its operations, folded up its tent, leaving only the directory.

While on the one hand this is just another story of an unprofitable enterprise biting the dust, on the other hand it is a story of wider impact because CVU was seen in some quarters as a model for the future. The failure will affect online learning in general, and the reasons for the collapse attributed to weaknesses in the medium as a whole.

The post mortem offered by the L.A. Times is unsatisfying.

The article suggests that the reasons for the retrenchment included:

- concerns that the university would widen the gap between wealthy white students and less wealthy non-white students
- flaws in studies showing that people learn as well online as in a traditional setting
- opposition from the American Association of University Professors
- Lack of financial support.

Other commentators also suggested:

- lack of financial support
- short-sighted planning
- control and predation of 'mainline' business units.

The first three 'reasons' cited in the article are implausible. None of these circumstances is unique to CVU. Online learning institutions around the world have worked on issues of access, credibility and instructor support with some degree of success. Certainly the proliferation of private for-profit institutions would not be possible were these insurmountable issues.

Even as early as last year, Ted Marchese, in the American Association for Higher Education Bulletin, noted that "Dozens of private and regional-public colleges, for example, now offer degree programs in the Washington, DC, area. Wisconsin recently counted more than 100 out-of-state degree providers within its borders; there are 37 in Milwaukee alone."

The 'financial support' argument is a bit hard to accept as well. Certainly, from some points of view, the level of support may seem small. Thus, for example, Gary Berg writes in an article for Education Policy Analysis Archives, "Clearly, with a proposed $6.1 million in the coming fiscal year for the UC, CSU and community college system, the California Virtual University is a small effort."

And Dave Balch writes to an online learning list server, WWWDEV, "We are going (38 students the first semester, over 300 two years later) but still not the 'cash cow' the administration had hoped for."

Even so, six million dollars is a lot of money. By any account, that is adequate funding. Additionally, since CVU does not actually create online courses - it only catalogues them - it has no design or delivery expenses. Under CVU, individual institutions design and deliver online courses. A number of member institutions received significant grants for online course development.

So at first blush, the financial argument does not make sense. Even the university's failure on financial grounds does not seem to make sense. Why would Stanley A. Chodorow, CVU's first CEO, request a million in funding from the state's educational institutions? That seems a bit much for just a database.

Clearly, CVU was never intended to be *just* a database. But what it *was* intended to be isn't as clear. The flag waving and hoopla surrounding each new phase of CVU promised more and more.

Politicians and administrators said things like "We're aiming to be the Amazon.com of the technology-mediated education in California" (Rich Halberg, CVU's spokesman.)? Mid-1998 saw a number of glowing reports in the print media, such as *A study in success: State's virtual 'university' graduates to a new level*. On the web, CVU's earned an inexplicable 'five star' rating at Distance Education Review.

It all seems to be a mish-mash. Some articles say that CVU would 'house' online courses, while others make it clear that it's merely an index. A number of articles

played up CVU's 'Student Union' without noting that CVU has no students. The role of CVU in providing technology, support, or infrastructure was unclear.

One of CVU's primary parameters was a partnership between industry and education. This was announced with great fanfare when it was launched. Sun Microsystems, Microsoft, Pacific Bell, KPMG Consulting, and International Thomson Publishing all contributed. But this venture was far from altruism on the companies' part. The companies would take over the schools' computer and telephone systems, and share profits from services such as computer support, pagers and Internet access."

This plan immediately ran into controversy. The selection of the companies occurred without tender and behind closed doors. Other companies vied for a piece of the pie. Legislators questioned the wisdom of a 10 year lock-in. Academics and other staff criticized the plan, calling it the privatization of higher education. In April of 1998, Microsoft and Hughes pulled out.

What is clear is that each of the players had its own agenda. The corporate sponsors wanted to earn profits by providing services. The member institutions wanted to preserve autonomy. The government wanted good press (as Wired sardonically reports, "Wilson wants to be known as the 'technology governor' who brought academia and industry together.") The frustration caused by such varied expectations expressed itself early and often. For example, Assemblywoman Debra Bowen, a Southern California Democrat, questioned the partnerships:

> `The concerns are about the financial risk that the state's taking and who really winds up paying the freight for this -- is it primarily off-campus students? This is a deal that was negotiated without a competitively bid contract in private, and as people have begun to take a look at it and raise concerns it's become less attractive to the private sector partners to risk that much capital.

And California Senate and Assembly subcommittees expressed their reservations:

> CSU officials came up with the plan because the Legislature has not given the 325,000 student system the funds to provide state-of-the-art computer network connections. Students and professors have protested CETI (California Educational Technology Initiative), calling it the privatization of higher education. Other firms have complained that the four corporations would have a lock on future sales to CSU. The lawmakers voiced similar concerns about locking CSU into exclusive providers or one kind of technology.

A large part of the reason for this lies in the way CVU was structured. As the University of Alberta's Director of Academic Technologies for Learning, Terry Anderson, writes, "CVU seemed dependent on the traditional member institutions to

provide courses and grant the degrees." Because of this, it did not have the institutional autonomy to set its own direction or develop policy appropriate to its medium. According to Anderson, this is part of a larger trend:

> This reinforces the concepts from Christensen's excellent book *Innovators dilemma: When New technologies Cause Great Firms to Fail*, in which he argues that disruptive technologies must be allowed to incubate outside the realm of control and predation of the "mainline" business units.

This would also explain Berg's assertion that "the present offerings of both the WGU and CVU... are not very impressive. In fact, they are little more than a hodgepodge catalogue of previously existing courses with great differences in format and quality."

But even so, student interest has been significant. Joe Rodota, Executive Director of the CVU Design Team, notes that

> The initial Web-site launched by the CVU Design Team in mid-September has attracted more than 100,000 visitors in just over 60 days. Hundreds of prospective students, faculty and corporate partners have provided input by completing online surveys, and more than 1,500 people have requested regular e-mail updates on the project.

Even if badly planned and presented, it still appears that online learning is a major draw.

No, I think that CVUs problems had nothing to do with access, pedagogy, staff support, or even funding. CVU worked with a fundamentally flawed business plan from the beginning. No amount of rejigging would save it.

By July of 1998, with new corporate support (Oracle) and a new site, CVU relaunched with plans to support itself through E-Commerce. It was doomed to failure.

E-Commerce only works if people use the site and buy things from it. With each institution offering courses from separate sites, there is no natural nexus for students once they have started taking courses, no reason for them to return to the site. Hence the request for funding from the institutions, their sceptical reaction, and the downfall of the plan.

What can online learning institutions learn from this?

First: there is a great danger that online learning will suffer from the (uninformed) promises made by administrators and government officials. Expecting quick financial returns, expecting to be *the* provider of a certain course, program, or service,

expecting that staff and students will flock unassisted to the new paradigm: these are all pitfalls into which promoters of online learning sometimes fall, and ironically, sometimes the discipline's greatest proponent can also be its greatest liability.

The way to proceed in online learning is - ironically, given the nature of the internet - slowly and cautiously. The introduction of new technology must be, as David Jones says, a product of evolution. Pilot delivery and evaluation should be conducted *before* the announcements and promises are made. Staff should be acclimatized and *trained* in new technologies and methodologies (indeed, it is characteristic of CVU's approach that staff were left pleading for training).

Second: corporate excursions into online learning will not be altruistic. Corporations are expecting specific returns. When they donate equipment or resources, they are expecting 'lock-in' - that is, a dependence on their technology. Moreover, they often desire to own the infrastructure, billing institutions for service (and leaving institutions to run the risk of passing those costs on to government or consumers). Where corporations venture into the provision of learning itself, their objectives will be based on profit, not social need.

This is not the time to debate the merits of for-profit education or corporate universities. But administrators and educators should understand that such institutions would change the nature of learning. Some - such as Open University's vice-chancellor Sir John Daniel - even take comfort in that fact:

> ...the core purpose of the university is to inculcate in its students an attitude of systematic scepticism. That is why true universities will always be safe from take-over by commercial interests and why 'for-profit' universities can never be true universities. Systematic scepticism and the academic mode of thinking make corporations and political bodies nervous, although individual business people and politicians may give heroic individual support to these ideals.

But such a view should not resolve itself into complacency. What Daniel is missing is the idea that a new model for learning will *supersede* the old, that traditional universities would not be acquired by corporations, but rather, they may be *replaced* by corporations.

Third: joint ventures are necessary, because they reduce costs and improve usage. but joint ventures do not work unless the institutions work together, sacrificing (apparent short term) gain for future returns. Corporations know this, which is why they're willing to pony up the cash. Educational institutions do not, which is why they don't fund initiatives, protect their 'turf', and hence end up on the riskier side of online learning enterprises.

As Daniel says,

> The key lesson that you should derive from the story of the Open University is that we need university-wide technology strategies to take full advantage of the knowledge media. Letting individual faculty and departments do their own thing in the usual way will not deliver the goods. Why? Because a laisser-faire approach is likely to increase costs and create excessive differentiation that students will find burdensome. Universities now admit the need to increase productivity. Technology can raise productivity, but only by reorganizing the teaching-learning process to play to our strengths.

And fourth: Colleges and Universities looking at online learning will have to understand that they are not looking at new ways of doing what they have always done, but rather, that they are looking at doing *new things*.

For example: the mega-university. Sir John Daniel, in another speech:

> There is a new approach to higher education, based on different technology, that is now most successful answer to the crises of access, cost, quality and flexibility. It is the mega-university, a term I use to designate a university that teaches at a distance and has at least one hundred thousand students. There are now eleven of them, but since none of them is in the United States you won't know much about them.... 2.8 million students in just eleven universities...

Or as Eugene Rubin, Associate Dean of Distance Education at University of Maryland University College, comments:

> Why would a student sign up with the CVU when they will get their degree from another institution? What is at issue here is that these virtual consortia are a sort of flawed concept and their failure does not represent a failure of distance education nor of institutions that are doing it well. For example, University of Maryland University College (UMUC) now has almost 200 courses on line and our distance enrolments are climbing at an incredible rate. We now have 15 undergraduate degrees and 7 graduate degrees completely on line and have over 12000 d.e. students.

It will not be enough to recreate typical university-style classes on the internet. For one thing, it's too expensive. As Daniel observes,

> Half the world's population is now under 20. Our traditional concept of campus teaching will deny higher education to nearly all these youngsters. Yet providing them with education and training is not just

> a pressing issue for the countries concerned. This is a time bomb ticking under our collective security. Without vigorous action many of these young people will grow up to be unemployed, unconnected and unstable. In a global world that is a global problem.

In order to address the changing needs of education, the emphasis on the professor will have to be shifted. Students will be expected to learn *on their own*, with the professor's guidance. This means that online materials will have to be, as they say in the field, 'learner centered'.

Not that this is news to practitioners. Berg again:

> As CPEC concluded in its 1996 report "Moving Forward," California needs more aggressive leadership in higher education.
>
> > There appears to be widespread agreement among educational planners working on a regional basis that what California needs is leadership that moves public colleges and universities to a completely new paradigm that is student-centered (California Post-secondary Education Commission, 1996, p. 15).
>
> The California Virtual University clearly does not represent an instance of this kind of leadership.

In the end, the structure of CVU may be likened to attaching a team of horses to eight freight cars and a caboose. It is not surprising such an effort would fail. It's not merely that horses are not strong enough or smart enough to pull the train. It's that such an effort fundamentally *misses the point* of the new technology.

Online learning allows us not only to place texts and other materials on computer screens, and it does not only allow teachers and students better and cheaper modes of communication. It allows us to *reshape* learning, to do away with inefficient broadcast modes of teaching, and enter into an age of interactive learning.

It's a hard paradigm to enter. Instructors will have to surrender their traditional monopoly on what is taught and when it is taught. Students will have to surrender the comfortable cloak of dependence. Administrators will have to rethink institutional jurisdiction and protected territories. Each must give up something - but each, if they follow that path, may gain so much more.

Resources

California Virtual University (CVU)

http://www.california.edu/

CVU Faculty Club
http://www.california.edu/Faculty/resources.html

CVU Announcements Board
http://netser.com/cgi-vcb/topiclist.exe?C1

Distance Education Review
http://www.distance-ed-review.com/pgmreview11.htm

News and Articles (Chronologically)

California Virtual University Plans Underway
Syllabus: November 24, 1997
http://www.syllabus.com/ntr11_24_97.html

California Virtual University offer new option for corporate training
by Joseph Rodota, Jr., California Manufacturers Report Vol. 36 No. 14 November 25, 1997
http://www.camfg.com/members/pubs/nlv36n14.html

Prospective Students Test-Drive Classes at the California Virtual University
Syllabus: December 8, 1997
http://www.syllabus.com/ntr12_08_97.html

Wilson pushes cyber education in budget
Donald E. Coleman, The Fresno Bee: January 9, 1998
http://www.fresnobee.com/localnews/story/0,1225,8357,00.html

Short Take: California Virtual University gets boost from tech giants
By Courtney Macavinta, CNET News.com: January 16, 1998
http://www.news.com/News/Item/0,4,18197,00.html

Lawmakers Question California Education Technology Initiative
Syllabus: January 19, 1998
http://www.syllabus.com/ntr01_19_98.html

Cisco Sponsors California Virtual University
Wired News Report: February 25, 1998.
http://www.wired.com/news/news/culture/story/10536.html

Microsoft quits Calif. campus deal
Jon Healey, San Jose Mercury News: April 17, 1998

http://www.seattletimes.com/news/business/html98/micr_041798.html

Microsoft Abandons CSU Venture But plan to link up college campuses still on drawing board
Pamela Burdman, San Francisco Chronicle: April 17, 1998
http://www.sfgate.com:80/cgi-bin/article.cgi?file=/chronicle/archive/1998/04/17/BU104630.DTL

Not-So-Distant Competitors: How New Providers Are Remaking the Postsecondary Marketplace
Ted Marchese, American Association for Higher Education Bulletin: May, 1998
http://www.aahe.org/bulletin/bull_1may98.htm

Public Policy on Distance Learning in Higher Education: California State and Western Governors Association Initiatives
Gary A. Berg, Education Policy Analysis Archives Volume 6 Number 11: June 12, 1998
http://olam.ed.asu.edu/epaa/v6n11.html

Solutions for *Techno-Shock* in Education
Joseph Auciello, CVU Conference Room: July 6, 1998
http://netser.com/cgi-vcb/messhow.exe?C5M128

Virtual U.: 'Surfers' site opens college doors
Sacremento Bee, Editorial, July 16, 1998
http://www.sacbee.com/news/beetoday/newsroom/edit/071698/edit02.html

"Virtual University" gets boost
Courtney Macavinta, CNET News.com: July 29, 1998
http://www.news.com/News/Item/0,4,24735,00.html

A study in success: State's virtual "university' graduates to a new level
George Raine, San Francisco Examiner: July 30, 1998
http://www.sfgate.com/cgi-bin/article.cgi?file=/examiner/archive/1998/07/30/BUSINESS15111.dtl

Real Education and Common Course Numbering
Alan Buckley, CVU Conference Room: August 11, 1998
http://netser.com/cgi-vcb/messhow.exe?C5M134

Stay Home and Go Back to School
Beverly Hanly, Wired News. September 28, 1998
http://www.wired.com/news/news/culture/story/15060.html

Asynchronous Learning Trends

Bob Jensen at Trinity University, web site. Last Revised on February 26, 1999
http://www.trinity.edu/~rjensen/255wp.htm

California Virtual University Has a Collision With Reality
Kenneth R. Weiss, Los Angeles Times: April 8, 1999
http://www.latimes.com/HOME/BUSINESS/CUTTING/OTHTECH/t000031667.html

The Intelligent Use of Technology
Sir John Daniel, address to TARA, Halifax, Canada: April 12, 1999
http://www.open.ac.uk/vcs-speeches/tara.htm

Re: Problems With Calif. Virtual University
Dave Balch, post to WWDEV, April 12, 1999
http://leahi.kcc.hawaii.edu/org/wwwdev/logs/2469.html

Re: Problems With Calif. Virtual University
Terry Anderson. Post to WWWDEV: April 13, 1999
http://leahi.kcc.hawaii.edu/org/wwwdev/logs/2474.html

Re: California Virtual University
Eugene Rubin, post to WWWDEV: April 13, 1999
http://leahi.kcc.hawaii.edu/org/wwwdev/logs/2477.html

Adoption, Appropriation and Evolution
David Jones and Teresa Lynch, web site. Last revised April 14, 1999
http://cq-pan.cqu.edu.au/david-jones/Publications/Papers_and_Books/webe99/

Technology is the Answer: What is the Question?
Sir John Daniel, address to TechEd99: April 21-24, 1999 (sic)
http://www.open.ac.uk/vcs-speeches/teched99.htm

All sites viewed April 14, 1999

Link Portal

I'd like to think it's the next generation of online learning, but it might also be a horrible failure. All I know is, you never know until you try.

Posted to WWWDEV, 3 February, 2000.

I'd like to think it's the next generation of online learning, but it might also be a horrible failure. All I know is, you never know until you try.

I said in a post a few days ago:

What we want is a symbiosis between our online and our offline lives. What we want is for the steady - almost uninterrupted - stream of work and play related information available to us through emerging wireless and wearable (or even implanted) access to merge in a constructive way with our lives at home, at work and in the pub.

We need to:

- *design a global system in which context-specific and personalized information and learning is available on-demand no matter who the person is and no matter where they are*

  but also to

- *design an cultural and social environment in which access and interaction with online information and community becomes part of and merges with traditional activities of working and playing.*

This is that plan.

I would like to invite list members to contribute to my Link Portal (sorry about the name - I have no imagination). And I know you're saying - another portal? Who needs it?

Fair enough.

Here's what I'm up to:

Phase I: set up a system through which users may submit links and resources such that:

- 'Today's Links' are displayed on their own page
- Links are automatically categorized according to content
- Categories of links are displayed, newest first

Phase II: invite contributions to the system from a specific target group or sector. Incorporate a mechanism for refining autocategorization and defining new categories.

Phase III: produce an email letter from contributed links. Devise the newsletter so that individuals may customize the content, receiving new links only from their chosen categories.

Phase IV: expand the category descriptions to include definitions and background description. Rank submitted links according to freshness and frequency of access. Enable autodeleting of expired links.

Phase V: develop a mechanism which incorporates category- specific information into other documents, such as essays or articles, in a variety of formats, such as embedded or popup links lists or definitions.

Phase VI: develop a mechanism whereby a network of link portals may 'poll' each other for new submissions, drawing into the system only links which fit appropriate categories.

Phase VII: develop discussion list software which feeds into the link portal, thus incorporating posts into the link lists. Enable users to filter displays by type (link, discussion, article) and by source.

Phase I has been in operation for about five months now, give or take. I have already launched Phase II in another context (the municipal sector in Alberta). And I would like to invite list members to be a part of the Phase II launch in the field of online learning.

The Link Portal is located on my home page (and hence branded "Stephen's Web"), though I may give it its own identify if it flourishes. The portal itself is a set of CGI (Perl) scripts running on the MuniMall server (home page for the server is - from there you can see the municipal sector version of the same tool).

OK - why do I think this is the next generation of online learning?

I have commented before that I think that the idea of a 'class' is on the way out. Classes are too rigid in content and in pacing for effective individual instruction. This is especially the case for people already in the workforce or for some reason unable to take four months (or four years) in classes.

But the intuitive appeal of classes is their *timely* delivery of learning materials. What people like about classes is that they are paced. Students get a little bit each day, all of it relevant (in theory), all of it in context (in theory).

The pacing of learning materials is also especially important for people in the workforce, particularly those who cannot devote entire blocks of time to online learning. But fed a steady stream of highly relevant and useful information, and moreover, information they can incorporate right into their work, they can make learning a regular part of their routine.

But where to generate such information? Who has the time and the resources? We could let Microsoft or Disney do it - and given time, they will enter into the marketplace in much this way. Or we could draw on a community of professionals with an interest in keeping each other informed and up to date.

The latter mechanism is valuable not only for experienced professionals, who remain right on top of their discipline, it is also a mechanism for students to be drawn into the learning stream. Students - more so than professionals - are likely to use such background information as definitions of terms, etc.

The idea here is to have people involved in the discipline add links to the portal. By that, what I mean is that they submit worthy URLs along with a short commentary or description. The description is key - it is (as Terry comments) the 'value add' which makes the portal worthwhile and which aids in the categorization.

It is important to keep in mind that the contents of such a system will - over time - not consist merely of links to web pages. It is better to think of them as URIs and not URLs, that is, links to any resource on the internet. It is certainly my intent to XML-enable the link system (it's not there yet). See my paper 'Resource Descriptions'

Finally - a note about content:

I am not looking for links to online courses or to universities and colleges. There are good portals for these.

I am looking for links to essays and articles, new products and resources, theory and pedagogy - in short, the knowledge base of the community.

What community? Well - specifically, the online learning community. This is defined by the domains of internet client and server software, technology and programming, internet culture, issues and ideas, education and distance learning, the web and web design.

And yes, I will edit content as appropriate. Items contributed by spammers, etc., will be deleted immediately. Items containing too much flowery prose will have their adjectives and adverbs deleted. The purpose here is content, not promotion.

To get a better idea, take a look at the links and resources already used to seed the system.

The AFT and Academic Control

The American Federation of Teachers wants to place rules on online learning, including rules which keep academics firmly in control of the process. They are not learning.

Posted to WWWDEV
9 August, 2000

Rory McGreal wrote:

The American Federation of Teachers passed a resolution that opposes undergraduate degrees that are earned entirely online. It is available at http://www.aft.org/convention/onlinepr.html

[Much clipping of a whole bunch of Rory's comments I agree with]

The AFT document states, in part:

Academic faculty must maintain control of shaping, approving and evaluating distance education courses. Faculty who teach distance courses need to be adequately compensated and provided with the necessary time, training and technical support to develop and conduct classes. Faculty should retain creative control and intellectual property rights over the use and re-use of distance education materials.

Now I know that the AFT's purpose is to represent teachers, but many more people need to be considered when it comes to the production of online learning. Experience has shown - I would think - that the academic staff in question form only a part of a team that creates an online learning resource. Why then should academic staff retain all the "control" and "intellectual property rights" over such material?

The creation and design of online course materials requires specialized training and skills - that's why institutions ask for credentials when they hire programmers, graphic designers or distance education course designers. In

many cases, their expertise in such areas as visual appeal, usability, navigation and programming is superior to the academic staff member in question.

Moreover, as the technology becomes more complex, institutions wishing to offer online courses must make a substantial investment in staff and materials. This is why (in my opinion) a lot of this development work will be done by professional publishers, who can afford the initial investment for quality work. On what grounds, then, do the academic staff maintain that only they should own the intellectual property thus produced?

Do the institutions, companies and governments which actually make the investment not have a right to some share in the returns?

This is an issue I've belaboured before in these pages - the advent of new technology means in large measure that academics must surrender some control over the nature and shape of education. They must surrender control to the ultimate consumers of that product - students (and I'm sorry about the terminology, but curiously, academics have no corresponding phraseology). They must surrender some control to those who pay for an educational system. And they must surrender some control to the other professionals who are essential to the development of quality materials.

Exploring New Directions in Online Learning

Complete notes from a full day pre-conference at NAWeb 2000; major topics include knowledge management, learning objects and sectoral communities

Presented to NAWeb 2000
Preconference Session
October 14, 2000
This page is a brief outline. Links to the full presentation in HTML and MS Word format follow below.

Overview - Participants in this session will explore emerging issues, trends and technologies that will shape online learning through the next decade. This all day seminar will focus on three major areas of interest and how they interact:

Knowledge Management - Industries and corporations are in a race to become knowledge-based organizations. To this end they are redefining our ideas of what counts as knowledge, how it is produced, how it is stored, and

how it is distributed.

We will look at how database driven just-in-time knowledge solutions are being applied to all aspects of corporate process and how these forcing corporate trainers to re-invent staff development and corporate training.

Learning Objects - Learning organizations are reshaping online learning with a redefinition of the core elements of instructional design. Learning objects are reusable and interoperable units of learning content. New standards, such as IMS and SCORM, are defining how online learning materials are authored, distributed, and applied.

We will examine the concept of learning objects from concept to implementation with an eye to how they will affect our own practice.

Sectoral Communities - Online communications have facilitated the rise of industry-wide sectoral communities that act as a pool of information and resources and serve as the context for knowledge creation and online learning.

We will look at online communications technologies new and old, examine lessons learning in community formation, and consider how the rise of sector specific communities will impact learning in those areas.

HTML version
MS Word version

Content Syndication and Online Learning

Using the content syndication format - RSS (Rich Site Summary) - in an educational environment.

Presented to NAWeb 2000, 16 October, 2000

This paper divides into two parts. In the first part it defines and describes the RSS (Rich Site Summary) format and its emerging use as a format for content syndication by news and media organizations on the world wide web. Through the use of working models and demonstrations, the development, display and distribution of content modules via RSS will be discussed. In the second part, the theories and practice employed by news and media organizations are applied to online learning. Using MuniMall, an online learning community developed by the author, as an example, the method of integrating syndicated content with online courses and learning

materials will be described and illustrated.

HTML Version of the paper
MS Word Version of the paper

Faculty Evaluations of DL Faculty

> And in many ways, the dance is distinct from the dancer... so also for online learning instruction

Posted to DEOS-L
23 November, 2000

And yet...

"Dr. Steve Eskow" wrote:

In what other art or science or field of practice is it appropriate to "evaluate" the practitioner apart from his or her work?

Actors? Of course not. Critics evaluate their work: they do not try to evaluate Robert deNiro apart from his performances.

We evaluate the play Hamlet separately from Olivier's performance of Hamlet...

We do not "evaluate" Newton or Einstein, we evaluate their science.

We evaluate the question of whether relativity is true separately from the question of whether Einstein plagiarized it from his wife. We evaluate the truth of differential calculus separately from the question of whether Newton plagiarized it from Leibniz.

We do not "evaluate" Picasso or Gertrude Stein or T.S. Eliot apart from their pictures and poetry.

We evaluate the question of whether Picasso was pleasant to live with (he was not) separately from the quality of his art. We investigate the question of whether Eliot was a booze hound separately from the quality of his work. We evaluate each of Picasso's paintings, or Stein's writings, individually (that's why Picasso's paintings sell for different prices).

We do not have two ways to evaluate Frank Lloyd Wright and his buildings.

We evaluate his overall approach to architecture (unrealistic) separately from individual instances of his architecture (occasionally brilliant).

We need to bring to light the assumptions behind asking students to "rate" or "evaluate" instructors apart from the impact of their teaching.

And yet...

An instructor may be working with excellent content - which s/he may or may not have produced - and deliver that content badly.

The content *is* different from the delivery.

What this unexamined practice leads to, I believe, is a simple-minded and useless list of the characteristics of "good" teaching: a list as useless as a comparable check list which we would apply against Albert Einstein to determine if he was a "good" scientist.

And yet...

Being a good scientist is different from being right.

A person may be a very bad scientist and yet still arrive at the correct theory. Much of Newton's thinking, for example, was based on occult and astrology: classically bad methodology, and Newton's theories turned out to be (largely) correct: classically good results.

Yeats said it well: you cannot tell the dancer from the dance.

The great choreographer Martha Graham would disagree. It may be Rudolf Nureyev and Margpot Fonteyn dancing Lucifer and the Scarlet Letter, but it is Graham who is evaluated for the dance; in significant ways, the dancer *is* different from the dance.

What this dialogue represents is the 'lone wolf' theory of online learning as opposed to the emerging 'wolf pack' theory of online learning.

In the former, which has characterized traditional in-class learning for decades, the instructor is the star, the center of the show, the one and only shining light, solely responsible for (and given credit (and payment) for) the course.

In the latter, which is much more characteristic of the performing arts (where you have writers, directors, performers, etc., collaborating on the same work), the work stands alone, and each person's role in presenting that work

is evaluated separately.

If, in learning, we ask, "which model will prevail," we should ask, by analogy, "would it be reasonable to mount a stage production or a movie following the lone wolf model?" And the answer is almost always, "no." Such productions are too complex for a single person to mount alone.

Same with distance and online learning. It will be hard for many professors to bear, but they will have to share credit. Because if they insist on doing it by themselves, they will be swamped by the "Star Wars" of the online learning world.

Thomson Corporation in Major Online Learning Initiative

Details of the initiative, and what it means for traditional educators.

This is actually a compilation of several posts on another list, but I thought DEOS readers might be interested in the whole package.

This is a huge (yet completely unreported) story: The Thomson Corporation <http://www.thomcorp.com/> - best known in Canada as the owner of the country's major newspaper chains (but also as an educational publisher Nelson <http://www.nelson.com> - is making a major play in the field of online learning and content distribution...

Stamford, CN, based Thomson Learning <http://www.thomsonlearning.com> last week announced a plan to build a global e-university with Universitas21. <http://www.thomsonlearning.com/press/ShowPressRelease.asp?PressReleaseID=124>

On the same day, Petersen's, a division of Thomson Learning, announced an alliance with Making It Count, a division of online pre-college services provider CollegeLink.com, Inc. <http://www.thomsonlearning.com/press/ShowPressRelease.asp?PressReleaseID=123>

Meanwhile parent Thomson Corporation last month acquired all of Harcourt's Higher Education group: the NETglobal, Assessment Systems, Inc (ASI), and Drake Beam Morin businesses from Harcourt's Corporate & Professional Services group; and the Higher Education portion of Harcourt Publishers. <http://www.thomson.com/PressRelease/pr131.html>

Thomson also announced today (Monday) that it has acquired Greenhaven Press, Inc. and Lucent Books, Inc.</A>, privately-held book publishers of social issues and other nonfiction series for middle and high school students. <A

href="http://www.thomson.com/PressRelease/pr134.html>

Another Thomson subsidiary, Course Technology <http://www.course.com>, is working with Web CT <http://www.webct.com>, a well known online learning delivery platform, to develop a series of what they call e-learning resource packs (more than 75 have been produced so far). <A href="http://www.course.com/at/news/webct_092999.cfm?criteria=press%20releases>

Meanwhile, Delmar <www.delmar.com>, a subsidiary specializing in technology and trades, acquired Jamsa Press, an electronics and technical learning publishing company. <http://www.delmar.com/about_delmar/jamsa_092800.htm>

And the last piece of the puzzle, an easy-to-use set-top viewer, comes with Thomson's announcement, also today (Monday), of a partnership with Microsoft to launch a product for interactive television that will offer enhanced TV content and Web access over analogue phone lines. <http://biz.yahoo.com/rf/001127/l27141589_2.html>

The list of activities goes on... all in all, this represents a major initiative, which when viewed as a whole, represents the development of an educational institution which dwarfs even the largest university... and one which, if managed with vision and cohesion (as the list of acquisitions and alliances seems to suggest) stands to reshape the future of learning in general, from kindergarten to professional development...

In a reply posted on WWW-DEV, Vicky Phillips added:

Not quite completely unreported .. What Thomson is doing in the world of e-learning is our cover interview for the Virtual University Business Digest, Nov-Dec., due out next week. One thing you missed: Thomson also acquired Harcourt University, from Harcourt last week. This new DETC accredited degree-granting university is also up for accreditation from the regional board in New England. Thomson's deal with Universitas 21 follows Worldwide Learning (Murdoch News' e-learning division) pull out from a similar agreement last month (reported in the September VUBD). If anyone on the list does not get the VUBD and you want to receive a free copy this month please email me with your address and we'll send one out to you.

Then, in response to another post, I wrote what amounted (in retrospect) to a manifesto for public learning:

SPENCE Don wrote:

> The question of course is ... which direction this "controlled learning " > will take? > >. and one which, if managed with vision and cohesion > > (as the list of acquisitions and alliances seems to suggest)

> > stands to reshape the > > future of learning in general, > > from kindergarten to

professional development...

Um, I don't recall saying "controlled learning"...

In any case, the agenda, I think, is pretty clear: - online learning materials, from kindergarten through university and beyond, become commodities, paid for on a per-student license basis, and are widely available on demand - post-secondary education becomes almost exclusively the domain of private enterprise - primary and secondary education gradually moves out of the public sphere, replaced by charter schools, home schooling, and similar enterprises (these are made possible by widely available teaching materials, available at reasonable cost from Thomson)

In a more extreme scenario, I think we could see: - advertising materials distributed widely through all levels of the curriculum as a fund raising measure - learning tailored to meet the needs of specific employers (as is already the case in much corporate learning), even to the point of corporate universities - learning materials crafted in such a way as to promote consumerism and corporate sovereignty, much in the way that the press today reflects a pro-corporate agenda

I have long urged academics in post secondary institutions to recognize and adapt to the culture of online learning. In my view, professors' and administrators' resistance in certain key areas is accelerating the trend toward corporate online learning.

For example: - despite the concept of each course being individually crafted by the gifted hand of a professor, course content in the future will have to be produced in re-usable form, and courses will have to be assembled 'on the fly' from pre-existing components - despite the concept of university instruction being thoughtfully delivered in person by a respected professor, the role of teaching staff will have to shift from that of imparter of information to that of a coach or mentor on the sidelines

Why do I say this? Because online learning components, if mass produced, will easily undersell traditional hand-crafted education. Corporate universities can make major inroads into the traditional system if they offer courses at even half the cost of today's offering, and they would make very large profits doing so.

Professors and administrators continually say that contemporary universities will continue to thrive and survive. The evidence speaks to the contrary. Once the number of private institutions reaches a threshold, significant political pressure will be brought to bear to reduce and eventually eliminate the government subsidies for post-secondary (and over time, even primary and secondary) learning.

At this point the crisis for the traditional system will appear 'out of nowhere' and we will see provincial (or state) governments sell their institutions to the private sector. This is a pattern which has happened repeatedly in the past, especially in Canada, with

such hallowed institutions as the telephone service and electrical utilities.

Now let me say a couple of possible controversial things:

First, if we take care at the outset, the privatization of education won't matter.

It won't matter because education will be widely available and well within the means of every citizen. Government stewardship over a resource, even one so basic as education, is necessary only if the resource is in short supply. The marketplace is an effective distributor (and manager) of resources when they are sufficient; it is only when demand outstrips supply that we enter into a 'failure of the marketplace' and require a government intervention.

Historically, the marketplace has failed miserably in the provision of education, the cost of a tutor or classroom being well beyond the means of most people, and the cost of a university education being even more so. If we anticipate a significant reduction in the cost of education, however, education and learning becomes as widespread and available as telephone service, water and sewage, or electricity (these parallels are very deliberately drawn, with a recognition that none are available in many areas of the world - but this represents a different failure of the marketplace, one I address elsewhere - see, for example, <http://www.munimall.net/scripts/downes/clist/topiclist.cgi?topicid=972830298>).

Second, professors and academics will have to give up their proprietary right to own information.

Academics today retain rights to their published works (which they dutifully sign over to publishers, in order to see their words in print at all, this in turn in order to obtain tenure) and their lectures.

This grip on information represents the single largest cost in education today. It is represented in the cost of textbooks, which students must still purchase (even in many 'online' courses) and in the overhead accumulated by university libraries. It is represented in course lectures, still the dominant form of instruction at all levels of schooling. Indeed, the non-content cost of an education, whether it be primary, secondary, post secondary or professional, is trivial when compared to the cost of content delivery. Only a small proportion of a professor's time, for example, is spent actually answering questions (the other major cost, grading assignments, has largely been mitigated through mechanical grading or by being pawned off to graduate students).

So long as an environment persists where there may be an effective government-sanctioned monopoly on the distribution of information, the cost of an education will remain relatively high. Conversely, once the cost of information is reduced

significantly, so also is the cost of an education reduced.

Professors and other academics who agitate for the retention of 'their' copyright are (unwittingly) abetting corporate universities, such as would be launched by Thomson, in their efforts to maintain as high a cost for learning materials as possible. The Thomsons of the world see themselves as akin to book publishers or record labels - indeed, they are book publishers - and are working hard to maintain these copyrights for themselves.

In a corporate academic world - and even to a significant degree in the current world - academics will not retain these copyrights in any case. As the music and publishing industries have shown us, such work can be contracted on a "work for hire" basis. It will not be possible for academics to tap into the corporate learning distribution system unless they 'play by the rules'.

For more on this, see
<http://www.munimall.net/scripts/downes/clist/topiclist.cgi?topicid=974924324>

Third, we need to promote education as a social good, and not only as an economic good.

So long as education is primarily and only an economic good, the marketplace (assuming sufficient conditions of supply) will be sufficient to meet our needs.

It is - as Rousseau so long ago pointed out - because education is a social good that the marketplace cannot be left completely to its own devices in this regard. Because the marketplace will serve itself, and the promotion of social values does not generate inherent profit, and so will be ignored in a private learning system.

What social values?

The primary glue that holds society together is the trust which enables people to interact without fear. This trust is manifest in many ways: in respect for rule of law and of the democratic process, in fair and accurate weights, measures and accounting, in the safety and reliability of products and services, in the expectation of a helping hand when in distress, a support system if injured, ill or destitute, and in the good graces and politeness needed in order to walk along a sidewalk without being bumped.

These social values are promoted in an educational system through the teaching of respect for other people and other cultures, through the fostering of empathy and awareness of others' feelings, through the implantation of honesty, charity and other moral virtues, though an awareness of history, geography and psychology, and through the fundamental skills of literacy, numeracy, and reason.

There must be a place where these are taught, and they must be taught at all levels of

education, for without these values we lose the benefits and the pleasures of being a part of a civilization.

As I said, the marketplace sees no inherent value in these teachings. They are - like more tangible infrastructure such as roads, airports and communications systems - long term investments in a society as a whole, from which no short term profit may be gained, and from which no direct return on investment is ever realized.

Society must take it upon itself to teach these things, which means that public institutions as well as private institutions

Fourth, we need to create a distributed learning system.

Education today is highly centralized around traditional institutions. If left unchecked, this centralization will simply move from the traditional institution to the new and evolving corporate institution. We will have one or a few educational service providers, much in the same way we have a few major publishers, film and recording studios, utilities or telephone companies.

This is unwanted because the best way to ensure that the values discussed above are represented and propagated in education is to ensure that there is a diversity of learning opportunities, to ensure that no entity (and especially no corporate entity) can monopolize education.

In online music and other publishing a series of initiatives - represented most visibly by Napster and Gnutella - have demonstrated an alternative form of publishing, one which allows artists to reach their markets directly, and one which - incidentally - also dramatically lowers the cost of these productions.

I have promoted elsewhere a 'learning marketplace', open to all providers of learning materials, to deliver a wide range of 'learning objects', from which courses or individual learning opportunities may be assembled. Such systems are in development today, but such systems - such as Merlot - are centralized and non-distributed.

We don't need gatekeepers. We need enablers.

For more on this, see
<http://www.munimall.net/scripts/downes/clist/topiclist.cgi?topicid=970691389>,

<http://www.munimall.net/scripts/downes/clist/topiclist.cgi?topicid=972053825>, and
<http://www.atl.ualberta.ca/downes/naweb/Learning_Objects.htm>

And fifth, we need to produce a freely accessible 'information layer' of online learning materials.

The contents of such an information layer may be defined as that learning which is essential to capable and responsible participation in a post-industrial society.

It would include the essentials of literacy, numeracy, geography, history, the arts, and a number of other curriculum areas needed to foster the social values discussed above.

My own "Stephen's Guide to the Logical Fallacies" is an example of what I mean: an essential resource, provided freely to all who ask, which may be inserted or used in any secondary or university curriculum. See <http://datanation.com/fallacies/>

Canada's Schoolnet, which provides a wide variety of resources through, for example, its Media Awareness Network, is another example of what I mean. Such materials are high-risk and low-profit, meaning that the traditional marketplace is unlikely to provide them at low or no cost. Such materials must be created by society for society, in order to foster the knowledge and values needed to be a society. See <http://www.media-awareness.ca/>

That ends my list of controversial things.

But now we ask: so where does this leave the traditional university, or even the traditional school?

I think that if schools and universities simply try to replicate their in-class offerings in an online environment, that they will fail. They will fail because it's an inefficient mode of production, and because the learning they provide in this model will be inferior in quality to that which can be produced by a Thomson, a Microsoft, or a Disney.

I think that universities especially may even have to get used to the idea that they are moving out of the teaching business altogether, and that they should focus on three major areas:

1. Content production - universities, if they focussed their staff and resources on the production of high quality content (as opposed to courses) could rival and even exceed the publishers. Such content would have to be structured with re-use in mind; there would also have to be a rationalization of resources (the days of *every* university producing an online Business 101 from scratch are rapidly nearing an end).

Universities could produce a wide range of content. Drawing on government and other social funding, they could (and should) build and maintain a basic information layer as described above, for the common good of society.

2. Consulting - universities should get out of the business of trying to 'teach' because there are better ways to do it. University professors, however, should make their skills and experience available in an informal fashion on an as needed basis to students,

colleagues, and professionals.

The consulting function I am describing replaces the old 'personal interaction' we hear much of (but never see) in traditional institutions. Professors, instead of inefficiently delivering lectures, should work on a personal basis with groups and individuals on an as- needed basis.

Many professors may resist this idea, but I urge readers to see the other side of it: it is, is it not, the professors dream? No more classes - just seminars, discussions, conferences and forums. Some online work, of course, but also a lot of in person work as well. The human touch for those who need it, skilfully and precisely applied.

3. Research - government funding to universities is putatively for the purpose of education, but much government funding, and even much other funding, is directed specifically to the needs of research.

As in other cases, there will be a mix of private and public research, and for the same reasons: there is a social value, as well as an economic value, to research. Much of the work which is produced in universities (I might even include this post among those items) has no immediate or tangible benefit, and yet provides good for society as a whole.

Academics sometimes call this 'curiosity based' research, a terrible name if there ever was one. I prefer to think of such socially mandated research as providing a knowledge infrastructure, or providing a basic foundation for the other activities of society, just as does the information layer mentioned above, and indeed just as do the social values described above.

The challenge facing traditional academia should be clear, and clear in a way today as never before. We must adapt, not only the content and methodology of traditional learning, but even the very purpose of traditional institutions, in order to preserve the social values which make civilization worth the effort.

Distance Educators Before the River Styx

Hibbs's main point is that it is contradictory for academically-based distance educators to promote online learning but insist on face-to-face conferences. In my opinion, this is only the surface of a deeper issue that is lost in his presentation.

I am sympathetic with the points raised in John Hibbs's article, "Distance Education Exam at the Pearly Gates" (Hibbs, 2001). Hibbs touches on more than the hypocrisy of distance education professionals who refuse to hold their distance education conferences online; he points to academia's unwillingness in general to revisit some of its cherished presumptions.

Hibbs's main point is that it is contradictory for academically-based distance educators to promote online learning but insist on face-to-face conferences. In my opinion, this is only the surface of a deeper issue that is lost in his presentation. It is not just that conferences are offered face-to-face, but that they are structured in such a way that face-to-face participation is the only possibility.

Consider the Conference on Distance Teaching and Learning, held in August 2000 at the University of Wisconsin. Of the 80 sessions conducted at the conference, only three were available on the World Wide Web, with an additional six links to authors' home pages. The only way to have participated in this conference was to travel to Madison. The presentations were not provided online (though you could order video tapes for $9 per session), and the Web site had no online forum.

It's not that we don't know how to conduct an online conference. In 1995, with my colleague Jeff McLaughlin, I conducted an online workshop for the Canadian Association of Distance Education. McLaughlin and I also hosted a session with Diversity University that same year (Downes and McLaughlin, 1995), and as recently as November I participated in a lively online multimedia debate at Net*Working 2000, the Australian National Training Authority's third online conference. I have also participated in online conferences with the University of Maryland University College and Canada's The Node.

In addition, there is evidence that we are learning how to provide better online conferences and that they are getting easier to manage. As Shimabukuro (2000a) writes, "Most educators already have the minimum skills: they can read and send e-mail, and they can log on to a Web page and explore the site." Shimabukuro (2000b) also describes how online conferences are becoming more flexible and more interactive. There should be no barriers, then, to conference participation online.

Discrediting Online Discourse

Since barriers do exist, however, the only conclusion to be drawn is this: organizers could offer conferences online, but won't. To take the argument a step further, the problem is that distance education professionals at universities don't recognize the legitimacy of online discourse. If an article has not appeared in print, it might as well not exist. To be considered sufficiently academic, an article on distance education must cite primarily, if not exclusively, print publications. Even using the word "available" in citations suggests that online presentation is an alternative and secondary mode of access. Hibbs could have (but unfortunately didn't) pointed out the irony of "major" works about online learning that do not cite a single online source.

Tony Bates's *Managing Technological Change* is an example of a recent and important work in the field of online learning. Bates lists only a couple of dozen URLs as citations, and in the list of references, not one URL appears. Are we to believe that Bates found *no* online sources worth crediting? Articles appearing in academic journals are no better: check the references of any paper and you may find one or two URLs listed among dozens of printed works. And while some journals (e.g., the Canadian Journal of University Continuing Education) place all of their articles online, most do not.

Do none of the distance educators publishing articles about online learning read D EOS-L or WWW-DEV? Do they derive no inspiration, no original ideas, from these online sources? If they do not, the credibility of the resultant articles should be questioned. But if they do, their granting credit to print sources only should be questioned.

Accessibility for All?

Hibbs also points out that despite its pretensions to the contrary, the academic world fails to address issues of accessibility and affordability. This failure is most clear when conference presentations are available only by attending the conference, at a cost of $3,000. This failure is less dramatic, but still clear, when academically-based distance educators publish their findings in expensive journals or books while providing only abstracts (or less) on the Internet.

It is revealing that courses offered by traditional institutions cost more when presented online, when in fact online technology reduces cost by an order of magnitude. And while academics may express concerns about the quality of online offerings, it would take a good deal of research to identify the pedagogical weakness in FreeEnglish's English as a Second Language course ($9.95 per month) or advanced computer training from SmartPlanet ($15.95 a month). Again, it seems that universities could offer their courses

for less, but won't.

The Corporate and Non-Corporate Worlds of Learning

Finally, I think Hibbs points to a large divide between the corporate and non-corporate worlds of learning. Distance educators who work in the Academy are not very interested in the non-academic world. People working outside this clique find this lack of interest frustrating, not simply because their work goes uncredited (distance educators rework the same material, publish it, and claim credit), but because important insights are overlooked by the academic world. It is hard to believe, for example, that academic writers would not be influenced by Tom Barron's (2000) "A Smarter Frankenstein: The Merging of E-Learning and Knowledge Management," for example, or Harvi Singh's (2000) "The convergence of e-learning and knowledge management," or even my own (Downes, 1998) "The Future of Online Learning," which discuss the convergence of learning and data management. Yet you would struggle to find references to these and similar publications in a book or academic journal.

The hypocrisy is this: while distance educators talk about online learning as inclusive and empowering, their practice remains exclusive and disempowering. In their conferences, courses, and publications we see no move toward a wider audience or a wider base of participation. University professors, long criticized for being an enclave in society, remain an enclave even when they become distance educators in an online world. In thirteen years in distance education I have watched distance educators' self-imposed isolation push them ever farther from the mainstream of online learning. I have been criticized for suggesting that traditional academia stands on the brink of an abyss. Hibbs's article suggests it has one foot in the water. Distance educators ought to take heed, for it is a long, uphill swim once you have been swept down the river.

Originally published in The Technology Source, January / February, 2001.

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Response to CAUT

The Canadian Association of University Teachers gives the government report on online learning an F. A very undeserved F.

As you may know, the Canadian government's Advisory Committee for Online Learning recently release a report urging that government and post secondary institutions more aggressively pursue online learning. This report is available at http://www.schoolnet.ca/mlg/sites/acol-ccael /en/ and the best summary thus far is offered at The Node at http://www.node.on.ca/networkin g/february2001/briefs.cfm#ACOL

The report was informed by a broad range of input, including a background paper by Terry Anderson and myself, available http://w ww.schoolnet.ca/mlg/sites/acol-ccael/en/resources/ Report_Anderson_Downes.doc, and proposes some common sense

recommendations (as summarized by the Node):

-
- widespread, affordable broadband access
- Canadian course content development
- theoretical research and practical training in online pedagogy
- advancement of the Canadian learnware industry

The report also recommends the formation of a pan-Canadian online learning service which would:

- provide resources and services to online learners
- coordinate instructional design and online pedagogy support
- build a critical mass with which to market Canadian learnware

So basically the report is saying that online learning is here to stay, that we should adapt our infrastructure to enable student access, and that we should begin to create an online learning industry in Canada in partnership with educational institutions and private industry. These are sound recommendations.

The Canadian Association of University Teachers (CAUT) disagrees. In a scathing press release, they gave the report an 'F' (a cute way of implicitly indicating their academic superiority to the mere authors of the report). They argue that "the Committee ignored a growing body of research that casts doubts on the so-called benefits of virtual education."

But CAUT's position is short sighted and wrong, their 'research' (if we could call it that) misleading, and their conclusions based more on preserving an established power structure than in their stated objective of increasing accessibility.

According to the CAUT press release,

> "The Committee bases a lot of its recommendations on the belief that online education will improve accessibility," said CAUT president Tom Booth. "In truth, we know that a lot of web-based courses cost more and that a substantial number of students fail to complete their online courses."

The phrasing of "cost more" is deliciously vague, and is probably based on observations of development costs for new and adapted courses offered in pilot mode or to a limited number of students.

It certainly does not refer to mass market courses, such as those offered by

Ziff Davis (see http://www .elementk.com/home.asp) or to studies such as offered in Tony Bate's Managing Technological Change, which describes a more production oriented budget for online learning. Early work, software development and pilot projects will of course be more expensive, however, as colleges and universities standardize software and design approaches, and as they begin to use reusable objects, these start-up costs will fall.

But even this implication of "cost more" takes a decidedly one- sided approach to the issue. Even if, for online students, tuition is slightly higher, tuition represents only a small percentage of a student's educational costs. Online learning offers students savings in travel, accommodation, lost income, child support, and so much more. It is unlikely that CAUT calculated these savings into the equation; if they had, they never would have reached the conclusion they did.

Of more concern is the rate of failure to complete courses, a phenomenon which has historically dogged distance and online learning. We have learned from experience that completion rates are increased by offering students local support, support services, and alternative forms of instruction: exactly what the government report proposes. Simply pointing to a problem is not enough: it needs to be shown why the solutions proposed will not solve the problem.

But the major objection posed by CAUT is their concern about accessibility. They write:

> Booth also noted that recent research shows that low income groups, minorities, and people with less education to begin with are less likely to have access to computers or services needed to study online.

This phenomenon is known as the 'Digital Divide' and is rapidly being bridged. The CAUT writes should be aware that internet access in Canada now costs a little over $30 per month (including telephone charges; OECD http://www.oecd.org/dsti/sti/it/cm/sta ts/isp-20hrs.htm) and that internet capable computers can be purchased new for less than a thousand dollars: in sum significantly less than one year's tuition.

And Canadian internet access is widespread and growing; ACNielson reports that 13 million Canadians (out of a total population of about 30 million) already have access from a home PC (h ttp://www.eratings.com/news/20000907.htm) and many more have access from work, school or via a local cybercafe or community access point. Indeed, the percentage of Canadians with access to the internet is already higher than the percentage of Canadians with access to a university

education, so one wonders what sort of accessibility CAUT really ought to be concerned about.

Moreover, the CAUT release completely ignores that the government report proposes that steps be taken to close even those last few gaps in the digital divide. The government report, for example, proposes to

- link all publicly funded post-secondary institutions by 2001;
- provide anywhere, anytime high-bandwidth access to on-campus learners by 2002;
- ensure high-bandwidth connections are available to all K-12 classrooms, libraries and public access sites throughout Canada by 2003; and
- be maintained at a "state-of-the-art" level into the future (page 32)

One wonders what sort of a divide will remain after the completion of this program, and what reason CAUT would have for opposing it!

On top of all this, the report proposes that students' technology expenses be defrayed or otherwise support students' technology expenses (pp. 91-92). The CAUT release is silent on this item.

The CAUT release is also concerned that online learning is ill-suited to the sort of student currently excluded from Canada's post secondary system:

> "Students traditionally excluded from post-secondary education are the most dependent on face-to-face interaction and the least able to deal with the frustration and isolation of web-based distance education," said Booth. "If education to date has been the great equalizer, technology-based education could be an engine of inequality."

One wonders what sort of picture these university professors have of university access. Do they really believe that people are unable to obtain a university education because of learning deficiencies? The many single parents, aboriginals on remote First Nations reserves, shift workers and other 'deficient' students I have met in my work as a distance and online educator would belie that.

Moreover, though technology remains a frustration (though less so every year), there is little to indicate that online learners are isolated. From personal experience with online teachers and learners, I have seen that the perception of interaction and connection is greater. Empirical evidence supports this: this VCSU report is typical, showing that online learning increases feedback opportunities and increases interactivity and feedback.

http://community .vcsu.edu/facultypages/kathryn_holleque/OLsurvey/Report.html

My feeling is that the professors at CAUT should do their research before arguing based on erroneous assumptions.

Indeed, online learning is able to meet the learning needs of just those students disenfranchised by the current university system: it allows them to study from remote locations, at odd hours and with varying schedules; it provides greater support and feedback, and it offers them membership into a community to which they had hitherto been excluded. Online learning is demonstrably exactly the oppose of what CAUT claims it to be, and CAUT should know better.

> The Advisory Committee is recommending that governments and industry ensure that all post-secondary institutions are linked through a high bandwidth "learning network" by the end of the year, that a fourth granting council be created to support "learnware" development and research into online learning, and that students be encouraged to save more for their education in order to offset anticipated higher costs in the future.

By conjoining two separate points, the CAUT release suggests that if only we did not spend money on high bandwidth connections, students would enjoy lower costs. There is no ground for conjoining these statements, and good grounds for keeping the points separate.

Tuition increases began in Canada in the mid-1980s, well before the internet came to the fore. These increases are caused in part my increased university spending (the CAUT release correctly points to declining government spending as another cause). But in any case, students are encouraged to save not because of the high cost of technology but because of the high cost of education, even under the current system. As the government report observes,

> But at a time when many families need two incomes to sustain them-selves, affordability should not be discounted. Indeed, between 1987 and 1997, tuition fees for post-secondary education rose 95 percent while average family incomes only increased by 0.4 percent.
>
> In the 21st century, no one should have to choose between having to sustain themselves and getting a post-secondary education or pursuing life-long learning opportunities. (page

90)

The government recommends that students be given tax breaks and incentives to help them save for both a post secondary education and for lifelong learning - how could CAUT be opposed to this? Or do they envision some magic future where the cost of education will drop to affordable levels simply because we have cut our investment in technology?

One wonders what CAUT would say if the information were conjoined differently - if, say, we conjoined the value and increases in professor salaries with tuition increases, or if, say, we conjoined the amount of money spent on academic research with tuition increases. It is easy - but stupid - to even suggest that the cause of rising tuition is a rising investment in technology.

According to CAUT,

> the recommendations ignore the real problems facing colleges and universities after years of governments cutbacks, and would see "badly-needed funding diverted from the core operations of institutions."

Leaving aside the fact that the committee was not given a mandate to address the health of universities in general, the CAUT report is seriously in error when it says that spending on online learning distracts from the "core operations" of universities. Teaching is a core function of a university, and explorations into online learning are explorations into how to better perform that core function. It would be a mistake to confuse a core function with a specific mode of learning, or with a specific structural configuration.

Moreover, if it is - as I would argue - possible that spending on online learning could ultimately reduce the cost of teaching, then the investment would be well spent indeed. True, this may result in a lowering of spending on academic salaries, and would perhaps change the role of the university professor, but we must recognize that students - and the public - do not financially support the educational system merely to support a professor's income and way of life.

The fact is, if we are to approach anything like a widely accessible university and college system, the current funding and spending structures are unsustainable. And while it will always with public funding be possible to support university education for an elite, if we are to make it widely available we must change our model of teaching and learning in any case.

The authors of the CAUT release themselves demonstrate the need for an

improved education system when they resort to such academically unsound arguments as the following:

> The recommendations are not surprising, added Booth, given the composition of the Committee. The Committee was chaired by David Johnston, president of the University of Waterloo, and included senior representatives from AT&T Canada, IBM, the Bank of Montreal, Lucent Technologies, and Bell Canada Enterprises. No representatives of student groups or university and college teachers were included.

It is first worth pointing out that the sample of the committee members offered by the CAUT release is unrepresentative; of the 19 authors of the report, 13 are university or college presidents, rectors or directors while only 6 represented the corporate side of the house. Moreover, this assessment ignores the wide input sought by the committee. But in any case, educated people have long since learned that reasoning through guilt by association is unsound, and seek instead to address the merits of an argument rather than to attack its author.

That said, I would indeed call for wide representation on such a committee, and I expect that the Minister will call for a second body to review the recommendations, one more widely inclusive than the aforementioned panel of experts. But I would recommend that such a committee be genuinely representative: instead of the insular in-house committees, so many of which I have been a part, consisting only of existing academics and students, I would call for such a committee to also include representatives from the wide range of Canadians currently excluded from such deliberations by their exclusion from the Canadian college and university communities: I would call on such a committee to include farm workers, seasonal labourers, single mothers, First Nations, welfare recipients and the unemployed. And let us ask them whether they would see a benefit in widely accessible online learning, even if it meant inconveniencing some university professors.

Finally, perhaps CAUT sees some argumentative value in name calling:

> "The members of the Committee clearly have a vested interest in promoting online learning," said Booth. "It's a cheerleading squad. But we don't need more cheerleading. We need a more broad-based consultation and careful consideration of the complex issues involved with online learning."

It would cheer me greatly to learn that 13 college and university presidents felt that they had a vested interest in online learning. And quite frankly, the

thousands of people today working in online learning in Canada could use some cheerleading. In many cases working with little or no funding, moving from short term project to project, subject to the scepticism and indifference of the very community who should support us the most, we have nonetheless in five or six years shown the feasibility of online learning, demonstrated its effectiveness, offered university courses in communities where previously such education was just a rumour, and founded an industry which is rapidly becoming a major sector of the economy.

The men and women working in online learning - often for little or no additional pay, and certainly at significant cost in time and energy, deserved better from CAUT. They certainly deserved at least the merit of a fair hearing, and a criticism informed by fact rather than dogma. Nobody more than those practitioners of online learning are aware of its challenges and shortfalls, and no community in academia is working harder to improve its practice.

One final note:

CAUT has observed, and expressed concern about, what it calls the "creeping privatization" of the university system. They are concerned with the increase in sponsored research and concerned with the failure of government funding to keep up with enrolment increases (http://www.caut.ca/english/publications/review/Education%20Review%2 03-1.pdf).

If they would look beyond the boundaries of their own institutions, they would see, in the educational system as a whole, not creeping privatization, but rather, galloping privatization.

We see, for example, the rise of the private online university in New Brunswick, Lansbridge (formerly Unexus) (http://www.lansb ridge.com/), the accreditation of DeVries in Alberta (http://www.caut.ca/english/publications/now/20010206_alberta.asp), cost-recovery and for-profit mode degree offerings from institutions such as Athabasca University, and more. We see large corporations such as Thompson moving in on academic publishing and online learning (http://www.munimall.net/scripts/downes/clist/topiclist.cgi?topicid=975432685), and emerging academic service brokers such as Hungry Minds and UNext http://www.munimall.net/scripts/downes/clist/topiclist.cgi?topicid=964806397). We have seen the rise of corporate online learning and saw the contract for American military training awarded to lead contractor PricewaterhouseCoopers.

Were we to adopt the CAUT mode - business as usual, but more money

please - then we would be effectively surrendering the field to these corporate providers. And if indeed online learning is efficient and effective - as I argue it is (and as corporations and the U.S. military seem to agree), then in our non-action we are essentially surrendering all management and control of post secondary education to the corporate community.

As I have argued in the past, we must recognize that education has a social dimension over and above the economic dimension, and it is this fact which requires a public investment in education and a public say as to its outcome. To surrender this involvement is to surrender our identity as a culture and a society. Moreover, it is to surrender the very institution of the publicly funded university and college system itself. As the government report authors argue:

> The issue is much more than markets gained or lost. It is a question of the continued health of our post-secondary institutions. Some analysts believe post-secondary institutions that do not adapt to this e-learning challenge could lead to declining enrolments, smaller grants from government and thus less capacity for institutions to fulfil their role as an intellectual resource and educator for provinces, territories and communities. (page 21)

And moreover, as we surrender public control, we surrender national control:

> Now some might argue that such losses would be acceptable as long as market forces in the form of foreign institutions and corporations could fill the gaps. We do not believe these gaps can be so easily filled. Canada's institutions have evolved over the years in response to local, regional and national needs and the priorities of Canadian governments. Our social and economic prospects at all levels are intimately dependent on the health of these institutions. Foreign institutions and corporations respond to the needs of their own domestic communities and only secondarily to global markets. The requirements of Canadian learners, communities and employers will not be of much concern in most cases.

We in Canada are at a crossroads. The evidence is overwhelming that online learning is here to stay, and the evidence is overwhelming that a significant private for-profit sector in online learning has arisen, one which is taking advantage of the inaction on the part of Canadian colleges and universities. These private institutions do not run to the government for grants to meet enrolment increases; they achieve their efficiencies through new technology

and a focus on learning.

To accept CAUT's criticisms, and to accept the consequential wane of the public education system (or, to accept the increasingly unsustainable model of funding an increasing student base) is to accept the ultimate loss of public education. This is unacceptable, and if it is necessary to arouse the ire of a few well-heeled university professors to preserve and promote public accessibility to education in Canada, then so be it.

Understanding Online Learning

Overview session on online learning for Arts Faculty staff at the University of Melbourne

To view the Power Point presentation, click here. Please note that I have removed some URLs, usernames and passwords because I promised people I would.

Participants in the session may also wish to view my essay, The Future of Online Learning.

Ritual Tai Chi: Eskow vs. Jensen

What credentials does one need to participate in the discussion of online learning theory and practice? The old rules no longer apply...

Posted to DEOS, June 22, 2001

I've been following the recent exchange (mostly) between Brad Jensen and Steve Eskow with some interest. It is a matter of some current concern to me, because as you may recall, I have been looking for work recently (you will be pleased to learn that my contract has been extended yet again, so I am not unemployed).

The question at hand concerns qualifications. On the one hand, Steve Eskow seems to be taking the position that we cannot judge a person's veracity by his or her words alone; it is only with reference to a third party, usually a degree- granting agency, that we can make a reasoned assessment. Brad Jensen, on the other hand, argues that in today's online world, degrees and qualifications are of much less value in assessing a person's work than that person's work is in itself.

There is merit to both positions. I think it is true that the average layperson

cannot tell whether a medical diagnosis or a legal judgement is of value merely by studying the words alone. But on the other hand, the mere possession of a legal or medical degree is no guarantee that a medical diagnosis or a legal judgement will be sound.

In my recent job search I took the unusual step of going to an agency. I'm not sure whether academics go to agencies, but I wanted to be in a position to look at offers from both the corporate and public sector. I had my best face on: I presented my degrees, my publications, and listed my committee and board positions. The agent took a somewhat different approach: he wanted only a description of my last two or three projects and an indication of my role in them. Credentials don't count, he said. Results do.

It's kind of hard in an academic environment to point to results. As Brad Jensen suggests, a lot of the research that goes on is narrow and seemingly pointless. Indeed, the piling on of empirical study after empirical study trying to reduce a margin of error in the evaluation of a particular pedagogy or technology may seem pointless, though there appears to be no better way to do it. Even worse, though, most of my own work is theoretical. Talk about a lack of results! And yet, it seems to me, that no discipline could exist without this sort of work.

But while I may have few practical results to show for my time, at least I have something - an online course here, an online program there, a learning community. In the world of academia, however, it turns out that I am quite unqualified to be doing the work that I do. Do I have a classic education in distance learning? No. A PhD in a relevant discipline? Uh uh. And yet I can't quite allow myself to believe what Steve Eskow maintains, that there is no way to distinguish my work from quackery.

In fact, one of the things people around here have said to me (to comfort me, I suppose) is that I would have no trouble obtaining another position. And it does seem to me, based on my conversations with people from the field, that I could probably avoid the plight of poverty should my current gravy train come to an end. And perhaps I am even, though with few or no qualifications from either a corporate or academic perspective, nonetheless qualified to work in my field, and even to make comments to a list like DEOS. How could this come to be?

I entered distance education quite by accident in 1987 after I obtained my Masters in Philosophy at the University of Calgary. And for the next seven years I worked as a tutor for Athabasca University - this included telephone instruction, seminar classes in First Nations communities, even a little course design and a little work in compugraphics. More to the point, I launched by first educational bulletin board system (using Maximus BBS, for those of

you who are purists) around 1992 or so and created, with some colleagues, Canada's first educational MUD (a.k.a. these days, MOO).

This was enough to land me a position at Assiniboine Community College where a forward thinking administrator had the bright idea to offer classes in an online environment. Well. There were no Master's degrees in the field at the time, much less PhDs. Indeed, as my recollection serves me, the received wisdom in the field was that it could not be done; even distance learning, in the traditional sense, was sneered at as nothing better than correspondence school, and online learning would be even worse (such respected publications as the Chronicle of Higher Education still carry such attitudes to this very day).

Had I listened to traditional wisdom, I would have accomplished nothing in my career. I was told by the experts in computer services that it was impossible to run a web server from the network, so I installed one on my desktop and created my first web site. I was told that the web was an inappropriate medium for learning content, so I published my Guide to the Logical Fallacies on my site (and gained hundreds of thousands of readers and a slew of awards that continue to mount up even to this day). I was told that a proper college course couldn't be mounted on the web, so with two other people (and no funding) I built the province's first accredited online course. I was told that the cost of developing courses would never be practical, so I developed a reusable course object model and built a learning management system. I was told that people could never communicate and interact in a web based environment so I built a discussion engine and advanced a theory of online interaction. I was told nobody could predict where the field was going, so I wrote The Future of Online Learning. And so on.

To this day, what I believe and what I know about online learning is held in many quarters to be unlikely, if not outright wrong. And to this day people in the field will wave their degrees and years of experience at me as a means, not of responding to what I propose, but as a means of making me go away. And I wonder what Steve Eskow has to say to such an unqualified practitioner to a set of words - these words - that cannot be evaluated on their own. I do not accept assertions that the 'body of knowledge' of a discipline maintains that something is unwise or untrue. I hold each thing up to stand or fall on its own merits; the 'body of knowledge' has a poor track record, as any Kuhn scholar will tell you.

What I have observed in the online environment resembles more of what Brad Jensen has to say and less of what Steve Eskow has to say. True, nobody judges a paragraph, or an article, merely on its own merits; you need a context of evaluation, the measurement of worth by a person's peers (or in

a commercial world, one's customers). But everyone has a track record. Brad Jensen's comments do not appear in isolation on this list, nor do Steve Eskow's, nor do mine. Mauri Collins was a respected member of the community, long before she paid her $50K and got her PhD, by virtue of her measured comments and insightful observations, not her supervisor's nod of approval.

Indeed, from where I sit, the credentials by themselves are no good guide at all as to whether a person has a good grasp of the field or otherwise. I have reviewed many online courses, and some of the worst efforts were by well qualified people trying to the wrong thing with the wrong medium, and some of the best work has been done by people who have no knowledge of what 'should' be done. That is not to say that there are no lessons to be learned from the past (now that would be foolish) but it is to say that all lessons have to be applied in a context, and that a degree does not provide a context.

I can see while reading Brad Jensen's comments where he has missed some aspect of the discipline; I saw his comment about "the quality of the information and ideas that you provide" and, while agreeing with his point, saw straight away that it would be skewered, as have so many previous expressions of the same sentiment, with a narrowly focused endorsement of appeal to authority. It is - as Tim van Gelder once commented to me - like watching two people engage in an act of ritual Tai Chi, each person making the expected move at the expected time. Perhaps from time to time old hands like Steve Eskow tire of the dance and appeal to the black belt as a substitute for combat. But that satisfies no one and proves nothing.

The only way the received wisdom can be verified is through repeated testing; the only way a person's intellectual worth can be evaluated is through repeated exercise; the only way a person's authority on a subject can be measured in through his or her contributions to the field, either in writing or in practical application. In my view, institutions and writers that take the possession of a PhD (or the lack of one) as indicative of merit (or lack of it) are taking an intellectually dishonest short-cut. The possession of a degree can only be a guide; a person can exhibit merit whether or not they gained their expertise through state sanctioned institutions of higher learning. Indeed, some of the towering figures of the previous century - people like Albert Einstein and Ludwig Wittgenstein - made their original contributions from outside traditional academia.

What has changed between now and even ten years ago is that a person's track record (and related criticisms, peer evaluations, projects, etc) can be seen and known by anyone and everyone in the field. What has changed is that while previously a person's work would be seen by members of a field only if it were pre-screened for orthodoxy, today any person's work may be

viewed by any person in the field without the benefit of an intermediary. Yes, this has led to the rise of various snake-oil salespeople or con men, but quality shows in the long run (and in any case, I could name a few shady shysters who have their PhDs - quality isn't what it used to be).

And, moreover, I think most people know this. I think most people are willing to recognize quality regardless of credentials, and I think most people have little patience for people who rely on their laurels, not their wits, to respond to a challenger. I think Steve Eskow knows this too, or he would not have responded to Brad Jensen at all. People - even DEOS readers - have their own filters: they will read quality, and disregard the rest, and make their own decision about who does, and does not, have something worthwhile to say.

What works (and it does work) on DEOS will eventually work in the wider world.

Knowledge Base Integration

Some thoughts on how to use knowledge bases effectively in an online learning environment.

This article is the result of some reflections on an online learning portal being set up by the good people at Duncans MindLeaders On-Line Learning. My reaction isn't so much a response to their effort as it is a wider reflection on what it takes to use knowledge bases effectively.

Categories

I notice they place links into categories, though I couldn't find a portal-link page where the categories are displayed. But that said...

I've been wrangling with categories for some time now. I used to set my knowledge base such that each link was associated with a category (it was actually a field in the link table). Then I wanted links to fit into multiple categories so I created a 'lookup' table (or 'link list').

When I submitted a link, I would also select a category for it (from a drop-down list). This ceased to be practical once I got up to about 250 categories. I tried various ways to generate category selection and finally settled on 'automatic' categorization, whereby the contents of the submission would be scanned for a regular expression and the category (categories) based on matches.

I've concluded after several years of this that none of this is worth the effort. Categories are too fluid - something that was a subcategory last year ought to be a category this year, and all that really depends on your point of view anyways. Also, any meaningful categorization schema is going to have hundreds - even thousands - of entries, and so it's as hard to find the category you want as it is to find the actual entry.

So: I redefined what I mean by a category. Now, what I think of as a category is a 'pre-defined search'. This allows me to add, delete, amend, reconfigure, etc., categories as much as I want without worrying about the integrity of the entire system. Cross categorization, which used to be a big headache, is now simple. And I never worry about assigning an entry to a category.

Redundancy

When I looked at their KB I followed their suggestions and saw the link, attributed to me, that you had placed into the system. Which led me to the question: how did it get there?

I ask this question from a technical point of view, not a content point of view (you can use any of my links that you wish). The short story is, there's two ways it could get there: manually (via e.g. cut and paste from the newsletter) or automatically (via., e.g., one of my data feeds, such as the RSS version of the newsletter).

My Knowledge Base runs on a custom-built relational database authored in Perl (I didn't like what was out there so I wrote my own relational DB software). It runs on standard RDB principles so in theory your DB could read my DB produces and vice versa. Indeed, that's the whole point of having multiple versions of the link DB, and especially the XML version (currently only an RSS feed, but planned to be many more).

My KB also has a subroutine I call 'grasshopper' that is essentially what people call a 'scaper' or 'aggregator' - it contacts external sites, reads the HTML or RSS, brings back the data, formats it, filters it (according to whether it matches any of my categories, where categories are, recall, pre-defined searches) and tosses it into (a preview area of) my KB.

Seems to me that this is a lot easier than cut-and-paste, and indeed, if you set up a 'what's new' view of your knowledge base, I will scan it regularly and pull the info. Even better if you provide an RSS view.

Distributed DBs

Now we can actually take this even a step further and ask: why is my link in their KB at all? Again, this is a purely technical question.

I actually have several instances of my KB software running for different projects. I am trying to set it up so that you can define searches across these independently maintained KBs. Thus, e.g., If I search for 'LCMS', it will scan my KB, then yours, then any of a number of related KBs to retrieve the data.

Then there's no need for you to input my entry into your KB at all. You only need a means of accessing it. Only if you want to do something over and above what I do (e.g., add the rating system) would you want to store it on your own system.

Value-Add

When I looked at their version of the entry I 'contributed' what I saw was a word-for-word replication of what I had written. Now that is probably an artifact of your demo for me, but it raised some questions.

When I say 'value-add' what I mean is the addition of reflection and contextualization. Thus, for example, when I add an item to my KB I will provide an assessment of the resource (is it 'light'? 'detailed'? 'authoritative'?). But more, I will discuss what role this resource plays in a larger picture. Does it contribute to the ongoing DCMA debate, for example? Does it add to our understanding of LCMS theory? And finally, I often indicate whether or not I agree or disagree with the content of the resource, whether I have a quibble, whether I think they've made some point that needs highlighting or refuting.

This is the 'value-add' and I think it provides much more information than a simple ranking. But also: because my search works over the contents of the listing (as opposed to the contents of the resource being listed), it creates better search results. Thus if I say a certain resource that talks about how to write good code can also be used to evaluate good instructional design, the resource will show up in a search for 'instructional design' even though it never actually talks about it. Thus my search is, itself, a form of value-add.

Integration

Their KB looks like most KBs in that it is a stand-alone project. At least, that's how it appears. But I think that people don't go to KBs to do searches - or more accurately, there are many more useful ways to use a KB than to have people go to it and search.

My own KB engine extracts and integrates lists of resources (or even single resources) into web pages, for example. Now this is no great invention - Cold Fusion and ASP have done that for years. But it is an important use: it means you can create a relevant up-to-date list of resources on any web page.

I use this to create my newsletter. My newsletter page is simply a command to extract all the links from a give project that have been submitted in the last 20 hours (my weekly newsletter is exactly the same except that it's all the links from the last 120 hours).

The big weakness of Cold Fusion and ASP, though, is that these lists of resources can only be placed on a page sitting on the same server as the database (or that has direct access to it, in the case of a networked server environment). I could not, for example, place your resources on my home page.

But you could place my resources on your home page. You could specify exactly what you want to see ('the last 5 resources that mention the word 'grasshopper', say). The idea here is that my KB can be used by any person on any page. It could thus be, for example, integrated into an online course that uses WebCT.

The key idea here is to move the information from the KB to the remote location where it is actually needed. People should (almost) never have to go to the KB - the KB goes to them.

Conversation

I haven't built this in yet but I'm going to. It seems to me that any resource ought to be able to spawn a 'conversation'. People should be able to comment on the resource; these comments in turn become resources in their own right, feeding back to the original resource.

Resources and References

Saba Corporation
Builds IMS and learning objects largely for corporate training. The Saba Education Management System is the internet-based learning management system. Saba Learning Online is an Internet-based online learning system for the extended enterprise.
http://www.sabasoftware.com/

IMG WebUniversity
A library of pre-written online learning technology using Microsoft's SQL Server database engine to create a repository of reusable learning objects which can be incorporated into many different courses.
http://info.imgwebu.com/

Charting A New Online Course: Technology Enabled Learning - Alternative Learning Environments
This paper is an attempt to analyse and specify the design and development attributes of an online course. The basic framework of the analysis undertaken follows the guidelines for online learning set out by Rowntree (1999) and Lockwood (1998). A good template for a course proposal. By Yannis Karaliotas, 1999.
http://users.otenet.gr/~kar1125/doit/ncourse.html

A Systemic Approach to Learner Support
This paper outlines the structure and associated dynamic implications of an envisaged Online Learning Support System by identifying the parts and analysing their relationships using a System Thinking. Good article; interesting approach. By Yannis Karaliotas, 1999.
http://users.otenet.gr/~kar1125/doit/lsup.htm

Quest Writier and PEAK
QuestWriter is a set of tools to support online learning objects. It has been used in classes for supplementing course materials, as well as for completely online classes. PEAK supports online learning efforts through tools like QuestWriter and services to support you in your courses.
http://www.peak.org/qw/

RCMP Learning and Development Branch
Distance learning and online learning for the Royal Canadian Mounted Police.
http://www.rcmp-learning.org/main.htm

University of Leadership
ULEAD. A comprehensive skills training program for youth leadership through community service. An interesting initiative in online learning.
http://www.ulead.org

CyberSchool
CyberSchool is not a school in the traditional sense. It is a collection of high school credit courses that are taught entirely over the Internet to students around the world. The primary mission of CyberSchool is to make it

possible for your school to offer students a broader, more flexible curriculum through online learning.
http://www.cyberschool.k12.or.us/

The Masie Center
Home of Techlearn Trends mailing list; also contains general online learning and distance learning resources.
http://www.masie.com/

PathLore
Online learning instructional management systems for corporate training, or as they describe it, cross-platform computer-based training and virtual classroom solutions across corporate networks, intranets, and the internet for large organizations worldwide.
http://www.pathlore.com/info/index.html

Via Technology to Social Change!
by Alan Cummings, Technology Source, July/August 1999. A good discussion of the future of online learning, and an especially cogent description of the triad model which will be used in that context.
http://horizon.unc.edu/TS/vision/1999-07.asp

Enhancing Professional Education through Virtual Knowledge Networks
This is a good article which ties in the concept of knowledge management with online learning, arguing that universities should look to the corporate model of continuous and collaborative learning. By Charles Morrissey, Technology Source, July/August 1999.
http://horizon.unc.edu/TS/commentary/1999-07.asp

LifeLongLearning.Com
LifeLongLearning provides an online course directory listing hundreds of online courses and programs from Regent's College online learning database.
http://www.lifelonglearning.com/

Virtual University Gazette
The Virtual University Gazette is a monthly mailing list for distance learning professionals working in the adult education and online learning. VUG is issued free via email the first of each month. Each issue includes news of new distance learning programs in both the academic and corporate sectors as well as job opportunities and links to online learning hot spots in the virtual university movement. VUG is published by Vicky Phillips, CEO of geteducated.com, a distance learning consulting firm located in Waterbury, Vermont, USA.

http://www.geteducated.com/vugaz.htm

Eduprise
Consulting, learning technology, and other resources related to online learning.
http://www.eduprise.com/

Auctioning Off Class Struggles
Online seat sales - for classes. Several schools are conducting online auctions for seats in popular classes. Can online learning auctions be far behind? Nope. By Kendra Mayfield, Wired news, September 23, 1999.
http://www.wired.com/news/news/email/explode-infobeat/business/story/21887.html

Teaching and Learning Online
The University of Newcastle's resource for online learning and online teaching.
http://www.newcastle.edu.au/department/so/learning.htm

On-line Interaction
Discussion of the nature of and types of online interaction, from the University of Newcastle's discussion of online learning.
http://www.newcastle.edu.au/department/so/interact.htm

Instructional Design
Overview of Instructional Design from the University of Newcastle's guide to Online Learning. Overview of key steps, process, and staffing needs.
http://www.newcastle.edu.au/department/so/design.htm

Assessing Students On-line
Discussion of student centered learning and online testing, along with resources and links. From the University of Newcastle's discussion of online learning.
http://www.newcastle.edu.au/department/so/assess.htm

Online Education Catching On In India
A short article describing the rise of online learning in India. Why is it rising? In a word: cost. By Uday Lal Pai India Correspondent, asia.internet.com, September 21, 1999.
http://asia.internet.com/1999/9/2104-india.html

Trend Watching in the World of Learning Technology
Brief survey of trends affecting online learning, including the growth of the

internet, the emergence of knowledge brokers, and the predominance of multimedia. IM Europe, June 5, 1998.
http://www2.echo.lu/telematics/education/en/news/new56e.htm

Interactive Exercise Maker Pages
An excellent demonstration of dynamic activities: dictionary lookups, on the fly quizzes, image-to-word matching, and more tools for online learning. Cool! By Dan Beeby at Haverford, Bryn Mawr, and Swarthmore Colleges as part of the Tri-College Mellon Language Project.
http://lang.swarthmore.edu/makers/

Creating an online teaching space
This paper reflects on the development of an online web-based teaching (or online learning) site and reports on the stages of development from early beginnings on a local area network to a suggested model online teaching space. Graeme Hart The University of Melbourne. Australian Journal of Educational Technology 1996, 12(2), 79-93.
http://cleo.murdoch.edu.au/gen/aset/ajet/ajet12/su96p79.html

Web Based Instruction Resources
Good list of all the tools you might need if you are developing online learning resources or courseware. Covers course development tools, collaboration tools, examples, course content resources, course design resources, and studies, reviews and compilations. By Sharon Gray.
http://www.briar-cliff.edu/sharongray/WBI.htm

The Future of Learning: An Interview with Alfred Bork
Alfred Bork's vision of the future of online learning. Interview by unnamed Educom author. Educom Review, Volume 34 Number 4 1999
http://www.educause.edu/ir/library/html/erm9946.html

The Future of the Web, Intelligent Devices, and Education
Vision of future technology and the future of online learning, with a focus on SMILE (Software-Managed Instruction, Learning, and Education). By Howard Strauss, Educom Review, Volume 34 Number 4 1999.
http://www.educause.edu/ir/library/html/erm9944.html

Creating Community Online
Interesting and useful discussion of how to approach online learning communities. By Sharon G. Solloway and Edward L. Harris, Educom Review, Volume 34, Number 2, p. 8-13, 1999.
http://www.educause.edu/ir/library/html/erm99021.html

Accrediting On-Line Institutions Diminishes Higher Education
James Perley and Denise Marie Tanguay argue that accrediting online learning damages higher education because online learning compartmentalizes learning and endangers academic freedom. In a second essay, Virtual Universities Can Meet High Standards, Steven Crow argues that there is nothing inherent in online learning which demands a change in these traditional practises. Good read. The Chronicle of Higher Education, 1999.
http://chronicle.com/colloquy/99/online/background.htm#perley

The new educational frontier: Spoken word, written word, cyberword - the newest challenge of higher education
This interesting article compares the introduction of the printing press with the introduction of the internet and draws out consequences for online learning. By Francis A. Waldvogel, Presented as a key-note lecture at the 19th ICDE World Conference in Vienna, Austria, June 20-24, 1999, European Journal of Open and Distance Learning, November 5, 1999.
http://www1.nks.no/eurodl/shoen/Waldvogel/index.html

HungryMinds
Portal for online learning institutions and courses.
http://www.hungryminds.com/

A Top-Drawer Education Online
Competition for Hungry Minds - UNext is an online learning portal which has attracted courses from top-flight universities such as Stanford. By Katie Dean and Kendra Mayfield, Wired News, November 12, 1999.
http://www.wired.com/news/culture/0,1284,32474-2,00.html

Student Planner Learning Opportunities Databank!
Looks like an online learning portal to me - but contains all types of courses, including even the traditional classroom types. Canada only.
http://216.208.47.162/canlearn/ci_prog.nsf/frmProgsIntro?OpenForm

Online Learning Community for Support Staff
Example of an online learning community. Fred Hutchinson Cancer Research Center
http://www.fhcrc.org/~learncom/index.htm

Frontiers
This is a really interesting online learning community which does a lot of things right.
http://www.tinman.org/Frontiers/Pavilions.html

Service Learning Internet Community
There are many sorts of online learning communities - this one from California State University is set up more as portal for their online courses generally.
http://www.slic.calstate.edu/FMPro?-db=portals.fp3&-token=home&-format=agindex.htm&-script=updatefrontpage&-Findall

Learning Community
This online learning community for the San Francisco Education Fund is really nothing more than a shared resource base, with a little collaboration.
http://www.sfedfund.org/lc/lc.html

Dioplomats Online
Diplomats Online (DOL) is an online learning community addressing the needs of teachers and students of international relations. Sponsored by the American Foreign Service.
http://www.diplomatsonline.org/html/purpose.html

Course Server Softwares for Online Teaching
Nice list of two dozen IMS systems for online learning course delivery, with links. By Rafael H. Scapin.
http://www.if.sc.usp.br/~rafael/wbt.htm

CollegeLearning.Com
An online learning portal listing online courses from 12 colleges - with more coming. Critics complain about the extra costs associated with using this portal. See this article in the Chronicle.
http://www.collegelearning.com/

Web Spotlight: Surfers Warm Up to Personalized Content
Stats and analysis in support of the idea that web surfers want personalized content. My take - there is a lesson there for online learning! By David Lake, Industry Standard, January 3, 2000.
http://www.thestandard.com/metrics/display/0,2149,1097,00.html

Cable's On-Line Pedagogy Distance Learning Portal
A large collection of useful links related to distance education and online learning, including work on pedagogy, research, development tools and much more. By Cable T. Green.
http://jac.sbs.ohio-state.edu/cable/pedagogy/

Online Learning Goes Synchronous
Article describing new approaches in synchronous online learning, including

the use of voice, streaming media and chat. By Tom Barron, Learning Circuits, January, 2000.
http://www.astd.org/learningcircuits/jan2000/trends.html

Big Dog's ISD Page
Very detailed and very complete manual for instructional design suitable for online learning and distance education course design. Written in 1995 by Donald Clark, last revised June, 1999.
http://www.nwlink.com/~donclark/hrd/sat.html

Accreditation of Online Institutions
The author argues that the recent accreditation of Jones International University - which specializes in online learning - does not change the nature of accreditation. By Steven Crow, Technology Source, Jan-Feb, 2000.
http://horizon.unc.edu/ts/vu/2000-01.asp

Teaching at an Internet Distance Seminar
This important research report provides an excellent overview of online learning and some cogent observations about its potential and limitations. Still headily conservative, the authors tend to target online learning toward niche markets. But the research is thorough, the writing clear and the thinking first rate. University of Illinois, 1999.
http://www.vpaa.uillinois.edu/tid/report/toc.html

Designing Virtual Communities for Creativity and Learning
Useful article which outlines the use and construction of online learning communities. by Ted Kahn, The George Lucas Educational Foundation, 1999.
http://www.glef.org/edutopia/newsletters/6.2/kahn.html

People who live in glass houses shouldn't throw stones
A response to Teaching at an Internet Distance: The Report of a 1998-1999 University of Illinois Faculty Seminar. Rory McGreal's defense of online learning. January 22, 1999.
http://teleeducation.nb.ca/articles/ftf/index.html

Intelligent Agents for Online Learning
The title says it all, doesn't it? Excellent discussion of emerging technologies in online learning, along with research results from a pilot study. By Choonhapong Thaiupathump, et.al., JALN Volume 3, Issue 2 - November 1999.
http://www.aln.org/alnweb/journal/Vol3_issue2/Choon2.htm

Critical Issues in Evaluating the Effectiveness of Technology
Interesting article which highlights seven critical issues which arise on the introduction of technology - including online learning - to schools.
http://www.ed.gov/Technology/TechConf/1999/confsum.html

Chapter 4 ~ Community

Moo? No, this is a MAUD

Most community web sites put tourist and business information on the front page. But what readers really want is news and events.

Posted to DU 23 June, 1995

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-- Start: Friday, June 23, 1995 2:02:17 pm Diversity
University MOOtime (EDT)  Donald turns Ears on. CT_Ken says,
"to macclark  Hi, Squeaky!" Donald says, "ok guess we can
start now when you ready let me announce you.  okay." Donald
says, " I am here as donc also." MacClark speaks up, "Ken
type look" Stephe sighs DonC says, " ok let me introduce the
speakers today." DonC says, " stephen Downes and Jeff
McLaughlin" DonC  sits  Stephe says, "Hi everybosy" Stephe
says, "everybody, even :)" Onyx_Guest says, "Nice to be
invited here as a guest. No pun intended " Stephe says, "my
name is Stephen Downes and with me (*points to Onyx_Guest*)
is  my colleague Jeff McLaughlin" Stephe says, "The two of us
are administrators of The Painted Porch MAUD. What  'MAUD'
stands for we'll tell you. *smiles*" Stephe says, "Jeff is a
philosophy instructor at the University College of the
 Cariboo in Kamloops, British Columbia, Canada" Stephe says,
"I am a distance education design specialist at Assiniboine
 Community College in Brandon, Manitoba, Canada" Stephe
pauses for effect CT_SueH speaks up, "" CT_SueH speaks up,
"Canadian Content!" Stephe says, "We'd like to thank you for
attending our session" Stephe says, "entitled The Painted
Porch MAUD" Stephe says, "or, Why MUDs are so much better
than MOOs" Stephe says, "In this presentation we will begin
with a quick history of the  Porch. Then we'll discuss how we
are using it now for distance education  delivery. " Stephe
says, "We'll identify those features which make it unique and
different  from MOOs and we'll chat briefly about the design
philosophy behind them." Stephe says, "At the conclusion of
the session you are invited to tour the  Painted Porch"
Stephe pauses dramatically Stephe says, "The Painted porch is
born out of our experience with gaming MUDs.  Jeff, myself
and two others at the University of Alberta frequented a
place  called Muddog " Stephe says, "which no longer exists"
Stephe says, "sadly" Stephe says, "After learning to program
MUDs there we decided to adapt the  technology for
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educational uses" Stephe says, "The first incarnation of this was a mud called 'vlab' which ran at the department of psychology at the University of Alberta" Stephe says, "The four of us developed this MUD and demonstrated it at the Canadian Philosophical Association national conference in Calgary" Stephe says, "this was about two years ago" Stephe says, "Because access to vlab was unstable, we then started developing the MUD at Athabasca University. At that time it was called Athabasca MUD" Stephe says, "While the MUD was at Athabasca we ran our first classes on it. Jeff will tell you about those." Brice looks around for somewhere to sit. Stephe says, "When I took a job here in Brandon the MUD moved to Cariboo College (They 'found' an unused pentium kicking about)" Stephe says, "The MUD was renamed 'The Painted Porch' to reflect the philosophical theme" Stephe says, "We also at that time adopted the term 'MAUD' instead of MUD" Stephe says, "MAUD stands for 'Multi Academic User Domain'" Stephe says, "We wanted to indicate that the technology had evolved away from its gaming roots and was now being used specifically for educational purposes" Stephe says, "Jeff will now discuss the academic uses of the MAUD" Onyx_Guest says, "In terms of the educational purposes I first used the MAUD to facilitate a Bioethics course" CT_SueH speaks up, "Please tell me what a MUD is?" Stephe says, "A MUD is a Multi user Domain -- it is similar to a MOO" Stephe says, "In fact a MOO is a type of MUD" Onyx_Guest says, "For there was a large number of nursing students in a remote part of BC who were required to take the course but could not" CT_SueH speaks up, "thanks" Onyx_Guest says, "and so, I gave lectures via audio conferencing and then held seminar discussion groups on the MAUD" Onyx_Guest says, "I also maintained virtual office hours so that the distance students could contact me" MacClark . o O (....WOO?) Onyx_Guest says, "On the MAUD they also had simulations which they had to try and comment on by using our BBS" MacClark speaks up, "what sorts of simulations?" Onyx_Guest says, "I then had a different group of D.E. students and we started putting lectures on the MAUD so that they could access lectures" Onyx_Guest says, "The simulations were based on 2 articles one concerning Abortion, the other Euthanasia" Onyx_Guest says, "in each they had to 'experience' the scenario and make choices based on their readings and personal views" Onyx_Guest says, "for e.g., would they opt to perform active Euthanasia on the non-playing character" Onyx_Guest says, "they would then be moved to a different room to see the consequences of their actions" Onyx_Guest says, "finally, they would post their thoughts on a public bulletin board and the other classmates would engage them in discussion" Onyx_Guest says, "part of the 'cuteness' of the Abortion simulation was that they couldn't 'quit' --they had to remain in the room " Brice raises his eyebrows. Onyx_Guest says, "the virtual lectures that we began to put on the MAUD were for my Critical Thinking students" Onyx_Guest says, "and in the fall, I plan on running the same courses but with the addition of guest virtual lectures " Onyx_Guest says, "a good part of the

student's assignments are also done on the MAUD using Maudmail and the BBS." Onyx_Guest says, "other profs who will be using the MAUD include those involved in teaching via interactive television, including, physics, e.s.l., biology, computer science, and business" Onyx_Guest says, "one of the English as a Second Language profs has already adapted the MAUD tutorial (which teaches people how to use the MAUD) " Onyx_Guest says, "she has a quiz based upon the tutorial screens to test their abilities in understanding." Onyx_Guest says, "before I continue ...any questions so far?" Onyx_Guest smiles. CT_SueH speaks up, "What are the differences, benefits of MUDs?" CT_DickB says, "what is a mud but not a maud?" Ulf speaks up, "as i understand it it, your MAUD system does not allow activate participation in the extension of the environment featured. correct?" CT_SueH speaks up, "Over MOOs I mean?" Onyx_Guest says, "Well, instead of trying to boast about the MAUD I would like to point out some of the difficulties that students ran into and how we resolved them" Stephe says, "While we pause for questions, as well, I'd like to introduce Istvan Berkeley, the founder of vlab and a collaborator on the painted porch (*indicates Quartz_Guest*)" Onyx_Guest says, "Actually, let Stephe respond to that SueH in a moment :)" CT_SueH speaks up, "OK - thanks" Quartz_Guest says, "hi there" Quartz_Guest bows Onyx_Guest says, "great questions and let's deal with them in a second. :)" ChrisS has disconnected. Quartz_Guest says, "Another advantage of MUDs over Moos is the fact that MUD code is much more C like than moo code, this reduces the learning curve for new coders and gives them a more portable skill" Onyx_Guest says, "some students found learning the commands to be difficult because of the need for 'exactness'. Our response was to create an automatic tutorial" JayC says, "isn't MOO a kind of MUD?" Stephe says, "[to JayC] yes" Onyx_Guest says, "they also tended to 'talk over one another'" Onyx_Guest says, "to which the response was to point out how if one talked over another in real life, no one would listen, accordingly, people slowed down some what and the discussions ran smoother" Onyx_Guest says, "and finally the lack of self-directed motivation was a problem --but then again this is applicable to the conventional classroom as well." MacClark speaks up, "Can you tell us some examples of MAUDs used in natural sciences at your place?" Onyx_Guest says, "nevertheless, the remote students finally felt part of the classroom environment and enjoyed the informality that accompanies the MAUD" Quartz_Guest says, "well Vlab, which was a pre-maud was used by the biological computation project at the U of Alberta for lab meetings and the like - but then again Cognitive science probably isn't a 'natural' science..." Stephe says, "OK, before I talk about the features of the MAUD, I'll answer the question: although we've thought about natural science applications (and one coder is building a human cell) there are none as yet" Stephe says, "As we've sketched so far, a MUD, and hence the MAUD, is similar to a MOO in many ways" Onyx_Guest says, "other professors are planning on

using MAUD first as a meeting place " Stephe says, "It is a text-based multi-user environment like this one." Onyx_Guest says, "including those natural sci. students so that they get used to learning about and from computers" Stephe says, "There is a variety of chat lines, such as 'say', 'tell', 'chat', 'shout', etc" JayC's point, he guesses, is that MOOs are a kind of MUD as are MAUDs Quartz_Guest says, "It has, we feel, technical advantages over the Moo enviro though" JayC nods Stephe says, "as well, we have a MUD-mail service, and bulletin boards (the BBSs Jeff was referring to)" JayC says, "how is mud-mail, compared to regular email?" Stephe says, "additionally we have the simulations Jeff described, a lecture theatre, and in development, a conference facility" Quartz_Guest says, "well, it is pretty similar - although it is rather like the BSU mailer" Stephe says, "MudMail is similar to email except that it operates within the confines of the MUD only -- that is, you have to be logged on to the MUD to use MUD mail" JayC says, "hm. why do you use it instead of email then?" MacClark speaks up, "restricted user base" Stephe says, "we use MUDmail because it's convenient. " Stephe says, "also not all of our users have email accounts" JayC nods Stephe says, "OK, now let me point to the differences..." Ulf speaks up, "is there an interface between MUD and email? can users, for example, forward their MUDmail to their email account if they choose to?" Stephe says, "when you log on to the Painted Porch (and we sincerely hope you will) you will notice a very different look and feel to the environment" Stephe says, "at this point you cannot forward mudmail to email. That is an application we are working on." Stephe says, "The first major difference is the range of commands available to the user." Stephe says, "We have adopted a 'virtual reality' feel to our commands, and the idea is: if you want to do something, type that, and you will do it" Stephe says, "for example, to say something, type 'say '" Stephe says, "to nod, type 'nod'" Ulf speaks up, "one last question (don't mean to interrupt you, though): are you saying that you are developing most of this on your own, for your porch system in particular or are you using creations of other MUD systems much alike yours (why reinvent the wheel)? " Stephe says, "to quit, type 'quit'" Quartz_Guest says, "well, it is a bit of both - Much of the existing mud stuff can be used, but we are creating our own special stuff too" Stephe says, "The command set and the mudlib are drawn from existing MUDs, in particular, we use the MudOS 0.9.19 driver and the Nightmare 3.2 mud ,library, heavily modified" Stephe says, "the difference between the ease of using MUD commands and MOO commands is immense... no @, no capital letters, etc" Brice [to Stephe]: Isn't it hard to eradicate the MUD stuff like spell-casting and combat. JayC says, "capital letters? where?" Stephe says, "[to Brice] it is, yes" Onyx_Guest says, "some of it we've kept however" MacClark speaks up, "are these commercially available? your models? Nightmare, etc.?" CT_PennyM has disconnected. JayC continues to be annoyed by MOO being implied to not be a MUD Stephe says, "The MudOS and Nightmare code is freely

available" Brice tries to comfort JayC. Onyx_Guest says, "we have maintained some 'play areas' " Stephe says, "Now I haven't tried to code on a MOO but I understand, as Quartz_Guest indicated, that it's easier" JayC says, "yeah, the only restriction on mudos and nightmare code is that you can't restrict access to servers" Stephe says, "JayC you are misinformed there" JayC sighs, digs for his license Ulf speaks up, "what would happen if i typed 'take the pencil from the table in front of me'? would your virtual reality MUD understand that i want to get something i refer to as a pen from something i refer to as a table? " Stephe says, "There is also the myth that users on a MUD cannot create objects. The system allows us to give that capacity to anyone, however" Stephe says, "[to Ulf] well, we have no exact case (not having any pencils on the MUD *grin*) but yes, that is the flexibility of code we are looking at" Stephe says, "it is, we admit, imperfectly executed, but is constantly improving" Onyx_Guest says, "however the route to go is with 'take pencil from table' more efficient and easier to type" Ulf speaks up, "are you seeking to accommodate new users with that approach without losing the flexibility of allowing experienced users to type short commands (in this case 'take pencil from table' or some such)?" Stephe says, "we don't have users create objects, generally, for the same reason we have tried to go with naturalness of commands: we don't want the user to be distracted by the technology" Onyx_Guest says, "moreover, the ability to create is not all that relevant to the particular courses that we offer" Stephe says, "[to Ulf] the short commands are accommodated to. e.g. the program code if(sscanf(str,%s take %s pencil %s table)==3) allows a wide variety of syntax to work" Stephe says, "every aspect is designed for ease of use" Quartz_Guest says, "" Stephe says, "this extends to the design and layout of the rooms and the mud as a whole" MacClark speaks up, "So at this point you use the MAUD environment primarily for discussions responsive to specific situations?" Stephe says, "We have striven to keep room descriptions simple and clear (we found that users wouldn't read long cluttered descriptions)" Onyx_Guest says, "instructors have the ability to create and they can indirectly give that ability to the students if they so choose (although it is limited to whatever the instructor codes)" Brice [to Stephe]: Good point about the distractions from technology Brice [to Stephe]: I am tutoring on a MOO as we speak MacClark speaks up, "Is this the sort of thing that could be done by your average dumb middle aged biologist?" Stephe says, "we don't want people to get lost, so we have a context sensitive 'map' command -- just type map and a map of where you are will be displayed" Quartz_Guest gives Onyx_Guest a bucket... Stephe says, "yes. Coding for the MUD is decidedly simple" MacClark . o O (....there is a God....) Brice . o O (named Nietzsche) Stephe says, "And coders are supported by the administration and with sample objects. " JayC shrugs, that's true of the MOO cores too Stephe says, "And we are careful about tone

with coders -- no put-downs, etc. Just positive supportive help" Quartz_Guest says, "also, because of the similarity between mud code and C, it should be easy to find an RA to help coding too" Stephe says, "yes JayC there is a lot of the stuff in the MOO core which is the same as the MUD and MAUD - they have the same origins, after all. It is a difference in emphasis here." Quartz_Guest says, "I taught one middle aged Phil prof to code from cold in about a weekend - by the end he was really good. That is how easy it is." Brice smiles. Onyx_Guest says, "The difference in emphasis is such that we try to promote the virtualness and the userfriendliness of the environment" Stephe says, "Again, we really hope you'll visit us right after this session. We will all be there." MacClark speaks up, "Super!" Stephe says, "The address is: telnet maud.cariboo.bc.ca 4000" Onyx_Guest says, "it allows for virtual lectures, text simulations, seminars, public and private postings. " MacClark speaks up, "Thankyouveddymuch!" Stephe says, "When you log on, pick a name for your self. No need to register as 'guest'" Onyx_Guest says, "as well we envision it not just as a Learning place but a meeting place" MacClark speaks up, "Great!" Ulf speaks up, "it appears as if that is what you are gearing towards. the underlying MUD server really does not matter a whole lot. i am sure it would be easy to produce an exact copy of your MAUD with an underlying MOO server." Stephe says, "And vice versa, Ulf. Sure. We have chosen the MUD only because it agrees with our emphases" JayC is confused Ulf speaks up, "ok, then i understand your motivation, i think" Quartz_Guest says, "not really, the inheritance of moo objects can make things much harder to do on a moo, as can the verb attachments" Brice waves. JayC eyes Quartz_Guest Onyx_Guest says, "simpler rooms and directions, ease of code etc. all act to assist the non-computer literate person from using the MAUD " Ulf speaks up, "although emphasis could be laid on the exact same things with a MOO just as well" Stephe says, "I think so. From a coding standpoint I can't comment though." Brice speaks up, "Could be and is." JayC [to ulf]: really, we should stop needling them. a good enough answer is "the people we had locally knew lpmud better than moo". Stephe says, "heh -- we _are_ the people we had locally :)" Stephe says, "Anyhow, thank you for attending this session, and again, please join us at maud.cariboo.bc.ca 4000 for a tour" CT_SueH speaks up, "time to go to the Porch?" Onyx_Guest nods. Stephe says, "yes, I think we're done, unless Jeff or Istvan has anything to add" Onyx_Guest says, "Im 'kane', Stephe is 'Labatt' and Quartz_Guest is "Nomad'" ----------
JayC (#5753)---------- 1) The Nightmare mudlib 3.2, neither in whole nor in part, may ever be used for profit. Access to any mud making use of the Nightmare mudlib may only be restricted based on security reasons or reasons of network limitations. Specifically, access may not be restricted in order to charge access tolls. ----------JayC (#5753)---------- Stephe says, "I

will remain logged on here as Stephe in case there are log on problems, and you can chat with me as 'Labatt' on the porch. Jeff is 'Kane' and Istvan is 'Nomad'." JayC shrugs; you can't restrict access to nightmare mudlibs Quartz_Guest says, "actually, when we were looking for an environment, I did quite a bit of research - the LPMUD environment is MUCH easier and more flexible than Moo, the editor is also considerably better too" JayC says, "nobody uses the in-moo editor; that's why we have clients" Quartz_Guest codes in both CT_Ken waves in appreciation to all, leaves the room quietly, and implodes. MacClark speaks up, "So Nightmare is more or less public domain or shareware?" CT_SueH has disconnected. Quartz_Guest says, "yeh, but than can cause problems too" CT_Ken has disconnected. MacClark speaks up, "oops, Nightmare" Quartz_Guest says, "totally!" Stephe says, "We don't charge anybody for using the Nightmare Mudlib. We can bar sites if we need to -- indeed, I had to disable the existing mechanism on the Nightmare mudlib which was shipped" JayC [to MacClark]: Yeah, looks like it. But like the document says, you can't restrict access, even if you're non-profit. JayC says, "that is, if you're gonna follow through with their license agreement" Stephe says, "You can restrict access. You can't restrict access to only those people who have paid." MacClark speaks up, "Neat. When you say restrict access, you don't mean to class?" JayC says, "it sez: may only be restricted based on security reasons or reasons of network limitations." Quartz_Guest says, "actually, we restricted access to Vlab, as it was a purely research environment. We had multiple guests though - this was enough to satisfy the nightmare crew" MacClark speaks up, "Ah, so that would be appropriate then" JayC thinks their license needs to be rewritten, but that's what it said Onyx_Guest nods. JayC says, "better than LambdaCore; lambdacore doesn't HAVE a license" JayC fumes quietly at Pavel Quartz_Guest says, "there is a difference between 'access' and the privileges which access can bring." Stephe says, "In any case, the creators of Nightmare (Descartes et al) are fully aware of the Painted Porch and what we do" MacClark speaks up, "From where could I get a copy of Nightmare or Lambdacore?" Stephe says, "We have sought his advice in the past and keep current with new releases" JayC [to Stephe]: yes, but they have to answer to other mudlib authors that they drew on JayC says, "ftp.ccs.neu.edu is a good MUD ftp site" JayC is a little biased MacClark speaks up, "Any other advice welcome also." swb speaks up, "what do you think of LPMOO?" JayC's advice is to figure out what people you have locally, what people do the same things as you on the net, and look around Stephe says, "yes it is a good site tho sometimes not updated as quickly as we'd like (last time I looked they still stocked ModOS_0.9.19 which is quite old)" JayC thinks LPMOO is a cool thing to experiment with, but it's kinda slow Stephe says, "I can never remember the other release sites... I do know there's one at imaginary.com" JayC lives with Rob, LPMOO's author CT_DickB has disconnected. Stephe says, "There is a complete list at

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the MAUD Web site at www.assiniboinec.
mb.ca/www/isiit/maud.htm" swb speaks up, "OK" Onyx_Guest
says, "well Im heading over to the Porch, I hope to see you
there.  Indeed you can carry on this conversation over there
too :)" Onyx_Guest has disconnected. Ulf speaks up, "where
are you guys on the Porch. me and a couple of other  people
are waiting to be shown around (poout)" Stephe says, "it may
be slow due to netlag" Brice says, "i'm having trouble loggin
in there.  Oh" Brice says, "I see" MacClark speaks up, "o.k.
I'll see how successful I am...." MacClark says, "bye,
all...Thanks for an interesting discussion."  Quartz_Guest
says, "OK, I will go over there now too - If you cannot
login, ask  Stephe here, otherwise Kane & I will meet you
there" MacClark waves to all MacClark has disconnected.
Quartz_Guest wave Quartz_Guest has disconnected. Brice has
disconnected. Obsidian_Guest has disconnected. ChrisS says,
"what's the telnet address, sorry to be late" swb says,
"maud.cariboo.bc.ca 4000" ChrisS says, "thanks swb" Donald
says, "ok sorry missed that :(." Donald says, " ok thanks
scott" ChrisS says, "ill go now" Donald says, "Got to run to
Marist one. thanks chriss please log it." CT_DickB says,
"stephen  are you here?" Stephe says, "i am here" CT_PennyM
claps loudly for a demo CT_PennyM smiles broadly CT_PennyM
giggles Diamond_Guest speaks up, "what session is going on
here opplease?" Johann has disconnected. JayC has
disconnected. Agate_Guest says, "Hi Moulton" Donald says,
"you here for Meridian tour ?" Donald says, " sign is outside
in icde room , plus instructions."
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My Email to Netscape

Who does your digital identity belong to? Do you have the right to keep your identity private while you browse? Consider, in light of my email to Netscape's online community.

Posted to HotWired Wed, 18 Mar 98

Who does your digital identity belong to? Do you have the right to keep your identity private while you browse? Consider, in light of my email to Netscape's online community.

To: Member_Directory@netscape.com

This note addresses two related but separate topics.

1. When I signed up as a member of the Netscape Netcenter

community, the system did not allow me to specify my email address. Rather, it obtained and posted an email address on its own. The address is correct, that is, it is a valid email address, however, it is an address I never use (I have about 5 email addresses).

What concerns me is that it got the *correct* email address for the account I am using. That shouldn't have happened.

I have set *all* my Netscape mail and news options to my other email identity. This includes my POP server and reply-to addresses, which are set to downes@docker.com

However, your system inferred (correctly) that the account I am using is in fact my sdownes@mb.sympatico.ca account. I can see how you could obtain my mb.sympatico.ca domain, however, you should not, according to the documentation I've seen, be able to obtain my userid. I have *never*, in my life, entered the sympatico address to any form, etc, so you're not getting it from a cookie or any static data on my browser. You must be obtaining it from my current ISP login information.

What I want to know is: how you did this. I run a Netscape Enterprise server myself and haven't seen any 'snoop on user id' features. So there's something else.

I am also concerned about privacy. My understanding of web browsing is that userids remain private, however, this very much dashes that assumption.

2. My email address, as determined by your system, is now part of my userid. No problem, right? It's my account - just go in and change it.

   Wrong. It turns out, in order to change it, I must obtain a digital certificate from Verisign in order to change my personal information.

   One thing about this that troubles me is that nowhere was I told this *prior* to my signing on as a member. But let's let that go.

   More significant is that I cannot change my own information without the intervention of a third party.

   This raises concerns because, first, I know that Verisign is going to come back in six months asking for money, which I must pay, or otherwise they will toast my digital identity. I have refused to pay them in the past because I never cared. But now I've got something a

> little more significant going on here.
>
> Moreover: if it's my identity, why can't I choose my own agency? I have no particular reason to trust verisign. However, all other things being equal, I'd rather employ a Canadian agency, subject to my country's privacy legislation.

Thank you for responding to my concerns. I think these are significant issues affective personal rights of privacy and identity on the internet. Normally I wouldn't bother, but since you are Netscape, and therefore major players (big huge major players) in net technology, I think we need a response. I am therefore posting this email to a forum at Hotwired Threads, where it can be reviewed and discussed by others involved in online culture. I will - unless you object - post your reply there as well. Thanks.

One of the Greats is Gone

It's a sad day when an online community dies, its denizens scattered to the four winds, and today, too, is a day for lament.

Posted to NewsTrolls September 2, 1998

It's fitting - and purely coincidental - that the relaunch of HotWired should occur a day after the launch of News Trolls.

And the nature and shape of the new Hotwired site says much about why and how News Trolls came into existence. Indeed, the first article on the first page says it all:

> Inside Wifey Inc.: Affectionately known as Wifey and Hubby, a Washington state couple are turning their private bedroom antics into a new-media empire.

With this launch, and this lead article, HotWired's descent from the cutting edge to the pits of pubescent pabulum is complete. Sex on the web - that's how HotWired enters its new incarnation.

We could see it coming. HotWired - and its parent magazine, Wired, now sold to Condé Nast Publications - has been sliding down this path for some time.

The complaints stacked up one after the other on HotWired's online forum, *Threads*. Brain Tennis is gone, users lamented. Hot Seat is gone. And in one last final *UGH*, media columnist Jon Katz departed the sinking ship.

Threads - interestingly - no longer plays a role on HotWired. The new site has three main components: Wired News, RGB gallery, and Webmonkey.

Why these three? HotWired's press release tells the story:

> Relevant Knowledge reported that its (Wired News's) monthly readership had exceeded those of The Wall Street Journal Interactive, CBS.com, and CNET's News.com. (and) .... Over the past year, Webmonkey has become the most popular HotWired section, with page views increasing 330 percent since June 1997.

It's all about page views, folks. And why page views? Because it's all about money. Less travelled portions of the website were discarded. Media criticism doesn't draw the advertising dollars. There's no quick cash to be made by hosting a user forum, especially one where the users post critical comments.

Here's what I wrote about Wired in June:

> We know how it works. Microsoft is not going to advertise in a publication which proclaims it as the evil empire. Disney is not going to advertise in a magazine which proclaims that film is dead. Even Amazon.com isn't interested if you are slagging the publishing industry.
>
> But the big problem is: the values of those new readers, and the values of the advertisers who cater to them, are the old values. In order to attract them, Wired had to change. And change it did, in ways documented at length above, until the Wired of today was, in attitude, inclination and temperament, the polar opposite of the Wired of five years ago.
>
> When I say Wired became a corporate shill, that it's the advertiser writing the content, what I am saying is that Wired - in the ways just documented - is representing the interests and values of its advertisers and the readers they cater to, as opposed to the interests and values of the hackers, phreaks, wizards and geeks it first sought to reach and talk about. When I say Wired sold out, I am saying that they know where the wave of the future is, but have turned away, more

interested in making money than making waves.

So what now?

Just in time, as it turns out, we, the news trolls inhabiting Wired Threads, observing an obvious parting of the ways, fled the ship and landed here, founding *News Trolls*. We left not because we knew HotWired was going to sink our forum (they never had the decency to tell us) but because HotWired was in full retreat, becoming less and less relevant.

While we at News Trolls have disparate ideas and beliefs, we are united by our interest in media. We have in common the understanding that the leading edge of thought about the internet does not consist of How-To guides or the reports about the top software companies.

We are interested in the medium itself: how it gathers news, how it disperses news, and how it makes news. We are interested not so much in *how it works* - and even if we were, there's no shortage of such sites, including the now lamented HotWired - as we are interested in *how it's used*.

"The medium is the message", wrote McLuhan famously, and less famously, "the content is the viewer." We are interested in the content, because in the content, lies the viewer. What it important about the internet, and *interesting* about the internet, is how people's values and beliefs are reflected, and how they collide, locally, nationally, and globally.

There was once a time when Wired understood this. When Wired understood that the internet represented a global culture in transformation, a renaissance, a revolution. When Wired was down with the Dish-Wallahs. Underground with pirate radio. In on the edge. Irreverent, irresponsible, and cool.

I was there when MudDog MUD crashed for the last time in 1994. I was there when The Spot breathed its last in 1996. It's a sad day when an online community dies, its denizens scattered to the four winds, and today, too, is a day for lament. One of the greats is gone.

Selling the WELL

It's hard not to feel a little bit abused when the site and community you as a user have devoted your time and energy to turns around and drops you.

Posted to NewsTrolls April 7, 1999

We could all understand when AOL purchased ICQ. After all, despite

having tens of millions of users, ICQ had no identifiable revenue source. We knew the other shoe would have to drop - and to some extent are waiting for it still - and that ICQ would join the ranks of profit-making ventures.

And we were understanding when AOL gobbled Netscape. The company's flagship product - the Navigator web browser - was now being distributed for free. The Enterprise server never did rival Apache in popularity. Netscape was rapidly turning into the NetCenter portal, driven by the default buttons on the browser. And it was suffering defeat at the hands of Internet Explorer. Something had to give.

Hotmail - now a Microsoft product - was commerce driven all the way. They had a cool idea that even Microsoft couldn't copy - not easily, anyways, and not without being really blatant about it - and they had a user base which, in the world of the internet, translates into dollars. And it's not like Hotmail had a loyal following. Like broadcast.com it was just a site, offering web services for the price of (carefully targeted) advertising.

Closer to home, though, patrons of the Hotwired online community felt more than a little let down when the magazine was sold, then the website was sold, and the online community was shut down. The followers of Katz's Media Rants were by the management left out in the cold. But even there the writing was on the wall. It was always clear that the community was Wired's baby, and while there was a certain *cachet* to being part of that trendy crowd, it's not like the members built the site from the ground up.

Even so, it's hard not to feel sometimes as a website user that you're being treated like a slab of meat, as a commodity, as a pair of eyeballs whose attention may be bought and sold like so much grain at a prairie railway siding. It's hard not to feel a little bit abused when the site and community you as a user have devoted your time and energy to turns around and drops you like a sack of potatoes after a hard day's lade.

So one wonders what the members of The WELL are feeling today.

For those of you who haven't heard, The WELL was purchased by our rival down the street, Salon. Here's what The WELL said:

> "How gratifying it is to join forces with Salon, and initiate the next chapter in the saga of The WELL," said Gail Ann Williams, The WELL's executive director. "The two companies complement each other superbly." ....
>
> "The WELL and Salon have a shared heritage of stimulating conversation," said former WELL owner Bruce Katz. "The

> WELL, with its 200 plus hosted discussion areas is a great fit with Salon's interest in enabling and developing online communities."

One wonders whether Gail Ann Williams has been reading Salon lately. The two sites mix together like - well - The WELL and Salon. The former, in their own words, is "dedicated to intelligent conversation."

> A unique and world-famous community of writers, technologists, thinkers and quirky pundits exchanges information and opinions on a variety of topics. The subject matter ranges from jazz to Java, from gardening to Generation X. Membership in The WELL, which includes unlimited participation in hundreds of conferences, with an optional WELL homepage and email account, costs $10 or $15 per month.

By contrast, Salon's content today (April 7) includes Sarah Vowell: *Was serial killer Andrew Cunanan a monster -- or a hipster like you and me?* and Susan Straight: *Since my husband left, the funk is all mine*. Upscale light and fluffy articles - that's Salon's *forte*, and if you like it, fine, but it is the antithesis to the WELL.

But there's more to it than just that. Salon is everything the web was not supposed to be - slick, upscale, glossy, corporate, sales-driven, market-oriented schmaltz. Salon is *Vanity Fair* on HTML. Salon is most emphatically *not* a user-driven site. Content and discussion - these are for the owners (and presumably their sponsors, MSN, Visa and Lexus) to decide. Salon may sometimes depict itself as a web community, but it is more obviously in broadcast (and upscale sales) mode, as its advertising information clearly depicts:

> - An average of 1.2 million visitors and 13 million page views per month
> - 64% male / 36% female
> - $69,500 (U.S.) Household Income
> - 85% college graduates, 59% professionals
> - Mean age: 34
> - Mean session time with Salon per visit: 23 minutes per visit
> - Mean number of monthly visits to Salon: 23 visits per month

For 1.2 million visitors, the traffic in Table Talk is *miniscule*. And while the WELL probably has similar demographics, that site sells members access to

each other, and not to advertisers.

What's the difference?

Cliff Figallo, director or the WELL for six years (and now buried in Salon's staff list as their 'Director of Community Development' for Table Talk) writes in his book, Hosting Web Communities:

> As an online community, the WELL fulfilled its intended purpose of selling its users access to each other, meaning that it deliberately attracted and won the loyalty of people who were themselves attractions to others. I would describe it as a conversation-oriented, rather than commercially-oriented, community. (p.13)

And moreover...

> Community is most powerful when membership brings with it a sense of belonging. Unless that feeling is there, no manager, advertiser, or promoter can claim the presence of community....
>
> It's the sense of being included in some greater, mutually recognized social entity that drives people to invest themselves through visiting, participating and contributing, which is exactly what you want them to do. When people invest in this way, they feel a sense of shared ownership in the community, and even in the organization that supports it. (p.16)

If there is anything which defines the WELL, it is that the *members* built and defined the community. Figallo is very clear about this:

> For all the six years I managed the WELL, I wished in vain that i could have afforded to pay some of the individuals who served as hosts for our conferences. clearly, some of those volunteers were major attractions....
>
> We could not have afforded to lose our stars, and the possibility of that worried me often, knowing that at any time, the departure of 20 or 30 key individuals could have done to the WELL what the loss of Kramer and Elaine would have done to *Seinfeld* in its heyday. (p. 133)

Indeed, the members actually build the *computer* on which the WELL was

housed. Or at least, they bought it. Long-time WELL addict Howard Rheingold describes it,

> Half-seriously, Clifford Figallo named a figure. Within a few days, enough people had pledged hundreds of dollars each, thousands of dollars cumulatively, to get the show on the road. The checks arrived, the computer was purchased, the hardware was installed, and the database--the living heart of the community--was transferred to its new silicon body.

On the WELL, the *community* was the focus, and the *members* built the community. This is perhaps best characterized by the oft-used WELL slogan, "You Own Your Own Words". No such slogan exists on Salon, and the closest the magazine gets to ethics or community definitions is a blurb about 'Letters to the Editor'. What sort of community is it which states clearly, "We do not publish every letter?" Can you imagine Salon members pitching in to buy a new server?

The WELL has been through this before. In 1994, the site was purchased by co-founder of Rockport Shoes, Bruce Katz, who intended to build a series of mini-Well sites around the world. The following year, 300 WELL members left to form The River to "develop an on-line community that is owned and governed by the users, the people that create the value."

The River's mission states,

> The River is an open, self-governing, uncensored, economically sustainable, computer conferencing system. The central missions of the River are to maintain a medium for conversations among a group of diverse people, and to foster virtual communities which control their own destiny. The River Community is owned and governed by the people who create the high-quality conversations which are the source of the River's value. The River is dedicated to experimentation, and welcomes newcomers.

Cliff Figallo is not listed as one of the 'River Runners'. Howard Rheingold is, however.

If there is an antithesis to Figallo's now commercially-oriented work in online communities, it is Rheingold's classic The Virtual Community. For one thing, Rheingold reprints his entire book on his website. For another thing, Rheingold does not have a chapter titled *Support Strategies and Revenue Models*.

What Rheingold *gets* is that

> The system is the people.

This is the principle which guided the creation of the WELL:

> The same turned out to be true for the WELL, both by design and by happenstance. Matthew McClure understood that he was in the business of selling the customers to each other and letting them work out everything else. This was a fundamental revelation that stood the business in good stead in the years to follow. His successor, Farm alumnus Clifford Figallo, also resisted the temptation to control the culture instead of letting it work out its own system of social governance.

Resisted, for a time, anyways.

But why should we care? Most of us have never been members of the WELL - heck, it costs ten bucks a month and it's all San Francisco based anyways. Perhaps those Deadheads among us might find in the WELL a home, but who cares whether Salon buys the WELL, whether HotWired takes the long count, whether Slashdot 'moderates' its posts, whether players buy games rather than building MUDs?

Rheingold hits this one squarely:

> Virtual communities could help citizens revitalize democracy, or they could be luring us into an attractively packaged substitute for democratic discourse.

With the advent of online communities, broadcasters and print media began to lose their hold on public opinion. It was not simply that they could not put eyeballs in front of advertisements, they could not put *compliant* eyeballs in front of advertisements. From the very obvious product placement in Edtv to the lifestyle choices offered in prime time television, mass media creates and defines an culture of expectations and needs.

Sites like Salon carry this *motif* onto the internet. An upscale lifestyles and culture E-Zine, it is bringing *to us* an image of what the hip online consumer should be, think, and buy. From its *People* coverage (this week: Spiderman is hot, James Cameron, not - guess what movie is coming soon?) to its 'alternative lifestyles' coverage (Our correct attitude? *Warning -- lesbian lit ahead!*), Salon is creating a clientele custom-tailored for Lexus and Visa.

As Rheingold says,

> The great power of the idea of electronic democracy is that technical trends in communications technologies can help citizens break the monopoly on their attention that has been enjoyed by the powers behind the broadcast paradigm--the owners of television networks, newspaper syndicates, and publishing conglomerates. The great weakness of the idea of electronic democracy is that it can be more easily commoditised than explained. The commercialization and commoditization of public discourse is only one of the grave problems posed by the increasing sophistication of communications media. The Net that is a marvellous lateral network can also be used as a kind of invisible yet inescapable cage. The idea of malevolent political leaders with their hands on the controls of a Net raises fear of a more direct assault on liberties.

That's why this is such a big deal. It is *too easy* - using either clever technology, which Slashdot will probably sell any day now - or ham-handed censorship, as practised by AOL and other service providers - to shape and nurture the messages people are sending to *each other*.

Online community reaches deeper than broadcast media. It touches us at a more emotional level, probably because we know that there is a *person* at the other end of the pipe. Community sites which shape the communications between those persons, who redefine what they think their online community and culture is all about, have a reach more deeply into that viewer's soul than broadcast advertising ever could.

If the future of online community lies with the *Salon*s of the world, we are all of us - not just the WELL - in deep trouble. As Rheingold writes,

> Perhaps cyberspace is one of the informal public places where people can rebuild the aspects of community that were lost when the malt shop became a mall. Or perhaps cyberspace is precisely the wrong place to look for the rebirth of community, offering not a tool for conviviality but a life-denying simulacrum of real passion and true commitment to one another. In either case, we need to find out soon.

Portals and Community Plays

The newspapers and service providers are trying their hand at community websites. But these sites are not portals; they're not even good news sites.

And any kid with Linux and a server can take them on.

Posted on NewsTrolls and to Steve Outing 28 June 1999

I used to run a city site much like Houston 4U - in fact, my site started in 1995 and was called "The Brandon Pages". I abandoned the site when I moved from Brandon (in Manitoba, Canada) to my new position in Edmonton.

Anyhow, I was up against MTS Advanced early - they got off the ground in 1997 with a site called "Around Brandon" - it quickly absorbed another ISP and its site, and it was big, it was splashy, and it was just like Telus's MyBC. The 'Brandon' component of the site disappeared in 1998 - Brandon, population 40,000, was not large enough to support the venture - and is now simply Around Manitoba.

Of course the other reason was that I kicked their butt. I watched no fewer than five commercial sites go down while I managed my one-man volunteer site. Try as they might, I got the links, I got the traffic, and were I posting banner ads, I would have had the revenue. More on that below...

I was intrigued by Steve Outing's column today, AltaVista/Zip2 Portal Strategy Taking Shape (The link will be live after June 30; for now, see here), thinking that these large community-site vendors had finally 'got it'. But no. While you may style these as portal sites, if you actually look at them, you should notice that *you never leave the site*. These are *not* portals because they do not refer you to any external websites at all.

This was why I created The Brandon Pages in the first place and why I kicked their butts. My site linked to everything - positively everything - in the city of Brandon. Including the other 'City of Brandon' sites (which never did link back to me - go figure). And so long as there was more than one ISP, my site was guaranteed to be more comprehensive.

Sure, I had news articles and weather and a chat board and maps and tourist information and all of that. But mainly what I had was a neatly indexed (and customizable) list of every website in Brandon or about Brandon.

Now I would say that these sites - and they're *not* portals because they don't link to anything - are vulnerable to this kind of competition. They depend on their users setting them up as their home pages (Telus, which is also an ISP, is in a better position to do this than the newspaper sites). But they won't get the support generally of businesses in the community (though they may get the support of the Chamber of Commerce, because they're a big business) because they won't link to their websites. Any site which comes along *and*

links to everything else will cut them off at the knees.

Now as to the cost - although the city sites are being touted as 'expensive' any geek with a server and some smarts can respond fairly efficiently. Drop it on a Linux box (because MS sw support always costs a lot of money). Install some free online community support - the discussion board, web-email, personal pages, calendar, etc (all of which may be obtained for free). The tough part is to troll for the links - you can use a product like Smart Spider or write your own script in PERL. Toss it into a PERL-based database, like MySQL, and you're set (I didn't even use the database, because we're only talking about a few thousand entities here). The total cost - including a server rental - is $200 without Smart Spider (I set up fallacies.org for $200), $1000 with the Spider.

The other sites can't respond. If they add the links to their pages, they lose viewership, because people would rather see the *actual* site rather than the Telus or 4U version of it. And people once they've left might never come back. Remember, their business model *depends* on keeping people on their site. But if they don't set up the links, then they begin to lose visitors. They lose the tourist traffic almost right away (I got almost all of Brandon's online tourist traffic) because there's no easy way *in* to such a site (people won't link to it if they don't link back). And if they are not also the service provider, it becomes *really* hard to get people to make them their home page (with the Brandon pages, I made deals with competing ISPs to have them feature my site on their home page.)

I haven't even mentioned the content on the Around Manitoba or even the Houston 4U of MyBC sites. The news is soft-pedalled and oh-so very positive. The riskiest thing MyBC offered today was 'Biker killed'. Houston 4U was a little more aggressive, going after the immigrants (' Hospitals' immigrant care drain on budget'), but nothing which might upset the sponsors, or the parent company. It's the sanitization of online reportage, and I think that people will see through that pretty quickly, and again, flock to any site which they perceive to be a neutral or independent voice.

So I don't think we've seen the end of this yet. We've seen some forays into the field by some entities which don't 'get it' yet, entities which think they can monopolize online traffic. But don't be lured by the big names, glossy pages, and newspaper support (remember, in many eyes, newspapers are the *least* credible source of information, and online syrup like this only reinforces that view). Any kid with some smarts and some time can outwit them at their own game, and be more credible to boot. Online community sites will have to do a *lot* more before they approach anything like common currency.

The Standard for Internet Commerce

It's all nice and good to say that you are creating a set of standards for online commerce. But you have to make sure the major players are onside. You have to ensure that there is representation from the web standards community and from the consumer advocacy community. And you have to ensure that there is a mechanism for real input from web users.

Posted on NewsTrolls 12 July 1999

It is the ultimate in irony to see a web site describe itself as "Proprietary and Confidential". For obviously, a web site can be neither: its content is available for use by readers world wide; and a web posting is probably the most public of all documents.

It is even more ironic to see the label "Proprietary and Confidential" applied to a document which compares itself to such open standards initiatives as TCP/IP and similar protocols. The use of internet protocols depends on their widespread and free availability. Users should not have to fear secret draft documents or the possibility that royalties may one day be charged.

Yet Ziff-Davis weighs in today with a document which contains both ironies, the grandly titled "Standard for Internet Commerce." This self-described "seminal initiative" is intended as "a comprehensive codification of best practices in Internet commerce." Whether it can meet such lofty objectives in its current form is another matter.

Now of course nothing is official yet; the first press releases are not scheduled to begin until tomorrow, but Ziff-Davis couldn't wait, jumping the gun with a column this morning in Jesse Berst's AnchorDesk.

To hear Berst play it up, the whole thing is about customer service, good, bad or indifferent. "Bad service is frustrating enough in the real world," writes Berst. "But it's even more outrageous online -- because it doesn't have to be bad." The only thing holding up the emergence of good service on the web? A lack of standards - and so Ziff-Davis and its partners are ready to move into the gap.

The proposed standards, like any protocol, are intended to be voluntary. But there's an iron fist inside this velvet glove: "Once a best-practices ecommerce standard is crafted, e-merchants will adopt it -- or suffer the consequences." Consumers would patronize only those sites with the coveted SIC label; those vendors refusing to play ball would be shunned. Or so the story goes.

What Berst does not talk about, and what does not get discussed in the standards proposal at all, is the question of who does the monitoring and certification, and of how much the coveted SIC label will cost online merchants. And you can be quite sure it's going to cost *something*; otherwise, why would the standards be proprietary?

Well, OK, so they're going to make some cash on this. But standards are a good thing, right? We as online consumers *want* a measure of security and protection. And if we look at the aspects of e-commerce governed by the standards - everything from personal privacy to security to warranties and consumer complaints - it looks like the standards are the sort of thing which would do the job.

You'd think, anyways. But let's be clear about this from the start. The standards have nothing in particular to do with what online consumers want or expect in the way of security and protection. For one thing, consumers have *no say* in the content of the standards. Voting is restricted to a clique of founding members. Public input, while solicited, will only be "used as input by the editors and Founding Members".

The list of founding members makes fascinating reading. We see presidents and CEOs of such august institutions as Macy's, the Wall Street Journal, Barnes and Noble, Charles Schwab, and more. There is a sprinkling of university professors and consultants. More interesting, however, is the list of companies and institutions which are *not* represented.

Conspicuous by their absence are the heavy-hitters on the World Wide Web. The name Microsoft is nowhere to be seen. Usually, such gaps are filled by AOL or Netscape, but their representatives are not in the picture either. Amazon, the net's largest bookstore, isn't mentioned. Nor is eBay, the net's largest auction house. One wonders why Ziff-Davis has gone to press before lining up the heavy hitters. Or is this a power play - is ZD trying to run with the big dogs now?

Also absent are any representatives of the online community in general. One would thing that a document concerned with security and privacy would attract the attention of the Electronic Frontier Foundation. But no, nothing. Perhaps a consumer advocacy group; they're not hard to find. A technology representative, say, from W3C? SlashDot? Nada.

It's a bit of a stretch to expect anything of lasting value to emerge from a cabal such as this. And as we examine the proposed standards themselves, that sceptical prediction is confirmed. The standards are long on ensuring that merchants provide information about themselves, including the use of a cute little `i` logo and site search. They are big on such matters as product

availability, shipping, and warranties. They suggest that merchants tell consumers how much the goods or service will cost. And they think online transactions ought to be private and secure.

That all sounds good, but when we dig into the details we find that the standards in every case err on the side of the merchant. Consider the section on information integrity (i.e., can you trust the 'news' you're reading). The standard recommends only that "The merchant shall notify customers of its policy on accepting payments or other consideration from third parties for placement of any content related to the third parties' products/services that is not clearly identifiable as advertising." In other words, it is acceptable for such sites to hide advertising in with their news content, so long as somewhere on the site there is a page which says they do this.

Or consider their provisions on privacy. If the vendor gathers personal information, the standards say, they should disclose this fact to the user. So far so good. And the user should have the option of opting-out, right? Nope. The standard requires only that sites state "Whether customers have the opportunity to limit the use of their personal information (Opt in/Opt out) and how they can do so." Well, OK, but personal information cannot be used without the permission of that person, right? Nope. The standards impose no such restriction. How about restricting spam? Well, the standards do propose that users ought to have the right to say no (phew) - but according to the editors, that freedom should exist only when the information is first collected.

And a consumer-sensitive set of standards would up the ante. As Paul Evans comments on the ZDNet forum, "There should be traceability, so I could see who else is using my data. Further, I should maintain control of secondary, tertiary, etc. use. This includes medical records (contrary to what our business owned congress wants to do). All of this will require much better identity proofing than is currently used today. Things like X.500 identity certificates and, perhaps, smart cards instead of mag strips." But on such matters the standards say nothing. Advantage: vendor.

OK, how about customer complaints? You know - like when those antique Roman gold earrings turn out to be made of brass in Taiwan. The standards state only that there be "a means for customers to provide feedback or file complaints." There is not a word in the standards about how such complaints would be resolved, or whether they would be resolved at all. Online merchants could simply send back an acknowledgement form letter and then file the complaint into the circular directory /dev/null for long term storage. Such merchants would be in complete compliance with the standards! But perhaps not very popular with consumers.

The standards ought to endorse third-party dispute resolution centres, such as ilevel. But nobody like ilevel was asked to help create the standards, so it's not surprising that no dispute resolution process exists.

One would at least expect online vendors to obey the law. Of course, on the internet, many laws come into play, since the user, the service provider, and the vendor may all be in different jurisdictions. Even so, *some* law ought to apply. The standards recommend only that vendors "the merchant shall notify the customer which country's laws that the merchant believes apply to the customer's transaction." There is no requirement that the vendor get it right. There is no requirement that the vendor actually obey the applicable law.

Moreover, there is much that is missing from the proposed set of standards. Much that consumers would demand as their right, and about which the standards are completely silent.

For example, online commerce is much more than credit-card transactions, much more than the buy-sell exchange. Online marketing is to a large degree a matter of building a relationship with a customer, one where the customer is expected to contribute more than just money and demographic information. Sites such as Firefly, for example, ask customers to submit their musical and media preferences. Geocities encourages users to create home pages. eBay asks customers to submit reviews of online vendors.

One would ordinarily think that web sites, comments and reviews supplied by users would belong to those users. But in recent weeks, online merchants have tried to reverse that expectation, claiming ownership over these contributions. Yahoo made the audacious claim that it owns all Geocities websites. eBay has argued that no other site may refer to its vendor and customer reviews. More and more, it seems, the content provided by users is reverting into the hands of the providers. This trend would be reversed in any user-supported set of standards; but the Ziff-Davis proposal is completely silent.

Or how about site security? You as a consumer have a reasonable desire that your credit card information not be posted for all to see on www.hackers.are.us and thus that online merchants employ reasonable precautions against hacking. But the standards are completely silent on this point; the online merchant could leave your information in an unprotected file and still be in compliance with the standards.

Consumers also have a reasonable expectation that the claims made about a product are complete and accurate. This expectation should extent both to product information posted on the site, and also product information posted

in advertisements and other promotional materials. About the only thing the standards require the vendor to get right is the price! About other forms of misrepresentation the standards are completely silent. Of course - you could always complain.

Now you may be arguing - but consumers have a voice in these standards! Yes - a non-binding voice. But more to the point, a non-binding vote on the multiple-choice poll voice. There is no mechanism for proposing and having adopted anything which is not on the ballot. Sure, consumers have a voice - they can choose which way they want to be shafted by these online shysters.

It's all nice and good to say that you are creating a set of standards for online commerce. But you have to do a little more homework than the good folks at Ziff-Davis. You have to make sure the major players are onside. You have to ensure that there is representation from the web standards community and from the consumer advocacy community. And you have to ensure that there is a mechanism for real input from web users, input which is not only listened to, but which has a measurable impact in the nature and content of the standards which would evolve out of such a process.

Nice try, Ziff-Davis. Stick to producing magazines.

News Up Front

Most community web sites put tourist and business information on the front page. But what readers really want is news and events.

Posted to MuniMall Newsletter, 01 December 1999.

Who is reading your community web page? To judge from a survey of community home pages across Alberta, most readers are tourists.

At least, that seems to be who community web page designers are targeting. Enter almost any Community home page and you'll find a nice picture, a slogan, and a description or history of The town.

For example,

> "Manning, one of the newest towns in the north, was named after a former Premier of Alberta. The Town sprung up after the Second World War on the banks of the Notikewin River between two small hamlets - North Star to the south and Notikewin to the north."

http://www.agt.net/public/manadm/manning.htm

or

> "Legal is a unique multi-cultural community with a French heritage, located in a prime agricultural area just 20 minutes north of St. Albert." http://www.syz.com/townnet/legal

Now tourist information is important and often forms a valuable part of a rural economy. But in all probability, unless you are Banff or Jasper, tourists aren't your primary audience.

The next largest group of visitors, at least to judge from existing web sites, is prospective businesses. These sites post demographic information, business opportunities, and community profiles.

Consider the Town of Hanna: "The Town of Hanna welcomes your interest in our community. Whether it be industrial, retail, tourism or retirement related, opportunity is abundant in Hanna. We take pride in offering urban amenities with a country flair." http://www.town.hanna.ab.ca/

Business development is important but potential investors represent only a fraction of your readership. Provide information for them, but don't feature it on the front page.

So… who does read your community web site?

I ran the City of Brandon web site between the years 1995 and 1999, closing the site only when I Moved from the community to take up my current position with MuniMall. It was a volunteer position and an unofficial site, but for four years, Brandon's primary presence on the internet (the city is now served by a commercial venture, http://www.brandon.com)

Brandon.com learned as I learned before them that the primary audience of a community web site Consists of members of that particular community. Examining my access logs, I found that almost all of my page views were coming from local service providers. And most of my email was sent from within City limits.

You should examine your own access logs, but the result will be similar in most cases. And knowing that most of the people using your community web site will be residents should shape what you post on the home page.

Local residents do not want tourist or business development information. They want news, events and happenings. This is especially the case in larger

communities where information doesn't travel as fast as the wind, but even smaller communities need to keep their citizens up to date.

A significant minority of Alberta community web sites have seen the light and have started posting the latest and greatest right on their home page.

Looking at the Town of Lacombe (http://www.townoflacombe.org/) for example, I can see right away information posted today about the Children's Christmas Party, information posted last week about a bylaw amendment, and a variety of news items through the remainder of November and October.

Were I a resident of Lacombe, I would find this useful information, and more importantly, I would not have had to go hunt for it. And were I a tourist

The City of Camrose - cited before in these pages for progressive web design - also posts community information front and centre. See http://www.camrose.com/) and read about this year's Viking hockey tournament and news from the City engineering department.

It is not hard to add news and event listings to your front page, and it takes only a few minutes a week to maintain the links.

But what it shows about your community far exceeds the effort required. It shows that you care about community information, that you understand what's happening in your community, and that your citizens are active and involved.

So - put the news and events right up front.

Why XHTML? A Pastoral Tale

Why should community website designers embrace the new XHTML standard? Well, suppose you were driving down Highway 14....

Posted to MuniMall Newsletter, 26 January 2000.

Why should community website designers embrace the new XHTML standard?

Well, suppose you were driving down Highway 14 one beautiful summer day and the rumbling in your stomach announced that it was lunch time.

You cancel the music playback and call on the car computer (you are using voice access because screen displays were banned in 2003).

"Where am I?" you ask. Your Global Positioning System relays your coordinates and your computer responds, "You are ten kilometres east of Tofield."

"Are there any restaurants in Tofield?" you ask (not having travelled through the region recently).

Using the same technology that today powers cell phones, your car accesses the internet and searches for information. It finds the Tofield community home page, which you select.

"Restaurants?" you ask. Four are listed, and based on customer reviews you select a promising candidate, the Blue Plate Grazen Grill (you're in the mood for beef).

"Menu?" you prompt, and reading from the restaurant's web site, your computer lists today's specials with prices and options.

You make a decision. "Call them, please," you instruct your computer (for some reason, computers seem to work more quickly when you say 'please' - nobody knows why).

The background noise of a busy restaurant (a good sign) fills your car and a pleasant voice answers. "Blue Plate Grazen Grill," she says. "How can I help you."

"I'm about five minutes away," you say. I'd like to order the Blue Plate Special for today with slaw and gravy.

"We will be expecting you," says the helpful voice. "We accept direct debit and smart card." You consider paying for the meal immediately, but etiquette demands a tip, which you'd rather pay *after* you eat.

"I'll pay by smart card," you say, and disconnect. Your slab of beef is already on the grill before you hang up - the restaurant knows it can debit your account should you decide to change your mind.

The usual green sign approaches on the horizon. "Approaching Tofield," you car advises. "Directions?" you ask. The computer remembers that you just called the Blue Plate and needs no further prompting.

"Right at the light, three blocks to Second Street, half a block on your left,"

it advises.

Later, sated and satisfied, driving east toward the rising gibbous moon, you call on your car computer one more time, this time to file a satisfactory review.

Why XHTML? Can you afford not to...?

New Web Page Standard Announced

Building a community website? Better get ready to learn a new language: XHTML.

Posted to MuniMall Newsletter, 26 January 2000.

Building a community website? Better get ready to learn a new language: XHTML.

The World Wide Web Consortium (W3C) today released its recommendation for 'eXtensible HyperText Mark-up Language', XHTML version 1.0.

XHTML is being touted as the next phase of web page design because it enables the possibility of device-independent access. This means that the same web page may be viewed through a web browser, a wireless PDA, or a web page reader for the blind.

XHTML is essentially a combination of HTML 4.0 with another W3C specification, eXtensible Markup Language (XML). XML enables information to be represented structurally - for example, a book may use XML elements to represent sections, chapters and paragraphs.

The W3C is encouraging the transfer to XHTML compliance by providing a set of tools for web page editing and design. A program called "Tidy" helps Web authors convert ordinary HTML documents into XHTML.

XHTML documents will continue to work with current browsers.

The new XHTML specification has broad industry support.

Public Spaces, Private Places: Preserving Community Participation on the World Wide Web

The announcement that the non-profit Democracy Network is being acquired

by venture-backed Grassroots.com raises questions about the nature and scope of online political discourse.

by Stephen Downes
February 16, 2000

Douglas Rushkoff warns, "The Internet's original promise as a medium for communication is fast giving way to an electronic strip mall that will trade the technology's potential as a cultural catalyst for a controlled and monitored marketplace."

Yesterday's announcement that the non-profit Democracy Network (http://www.dnet.org) is being acquired by venture-backed Grassroots.com (http://www.grassroots.com) raises similar questions about the nature and scope of online political discourse.

The Democracy Network was founded by the League of Women Voters and the Center for Governmental Studies as a non-profit and non-partisan organization dedicated to providing voters with a broad range of information and opportunities for online discussion.

Grassroots is a private venture-backed company founded in 1999. Their focus is to provide "a website containing rich media and everyday communication-collaboration tools - a community environment that will enable citizens and their representatives to affect positive, democratic change."

On the same day it acquired the Democracy Network, Grassroots also announced $30 million in additional funding from a variety of private sources, most prominent among them being Knight-Ridder newspapers.

Knight-Ridder is a major American publisher with 31 daily newspapers throughout the United States, including the San Jose Mercury News, Miami Herald, Philadelphia Inquirer, Detroit Free Press, and the Kansas City Star. Knight-Ridder is also behind a number of internet developments including Real Cities, a network of regional hubs on the World Wide Web providing local information services in 31 U.S. markets.

In essence, then, the political information, resource and discussion site is now largely influenced, if not completely controlled, by a privately held newspaper chain. So - do we want our political information coming from newspapers?

And the quick and easy answer is: well, yes, of course! That's what

newspapers do and have been doing for decades and more.

But the deeper question is: do we want our political *discourse* run by newspapers? Or - for that matter - by America Online, which itself is working in partnership with the Democracy Network?

That's a tougher question.

Political *discourse* - which the Democracy Network provides - is quite different from political *news*, which Knight-Ridder provides. And like any aspect of community involvement, the distinction between information and exchange is important.

Newspapers are very good at providing information, though critics from the left and the right criticize the publications for placing their own slant on events. Online newspapers are also good at providing information, though the same criticisms apply, perhaps because the online information is the same as the print information.

Newspapers are less good at providing interaction. In a typical day a newspaper will publish a page or two of carefully selected and sometimes edited letters to the editor. It's hard to gauge public opinion from the letters section, partially because the editors like to balance the letters and partially because organizations orchestrate coordinated letter campaigns.

But in democratic societies we have generally been happy to allow newspaper to fulfill their traditional function of reporting the news, while the more important activities of political discourse and display have taken place in more public forums.

Long an icon in American rural literature, the public square is the classic public meeting place. Parades, concerts, political rallies, demonstrations - all these have at one time or another graced the white gazebo and bandstand.

Canadian towns and cities place less emphasis on the town square for obvious climactic reasons. It's a little hard to stage a political rally in three feet of snow. But public places are equally important to the Canadian body politic: in the winter we cram into the community centre and in the summer we spread out in community parks.

But even in our quiet communities, the public landscape is changing. As Kowinski pointed out in The Malling of America, and as Naomi Klein argues more recently in No Logo: Taking Aim at the Brand Bullies, our public spaces are shifting into private places. Our town squares are being

replaced with indoor malls.

Klein writes, "We live in a time when expectations for building real-world commons and monuments with pooled public resources - schools, say, or libraries or parks - are consistently having to be scaled back or excised completely. In this context, these private branded worlds are aesthetically and creatively thrilling in a way that is foreign to anyone who missed the post-war boom."

Malls are excellent (and enticing) places to shop and hang out (at least, legions of teens would say so). Climate controlled, sparkling and clean, they offer shopping, food, entertainment, and so much more they are almost irresistible to patron and politician alike.

It is a common scene on a Saturday afternoon to see table on table of displays by community groups, Girl Scouts, service clubs and more. Much more than shopping takes place in a typical mall.

But what you won't see is what defines the essence of political discourse. You won't see pamphleteering or demonstrations of a controversial nature. Indeed, the booths and displays will be of a decidedly *non-political* nature. Nor will you see - or ever be allowed to see - any printing or poster critical of mall administration or its tenants.

This, again, is to be expected. Malls are, after all, privately owned and managed. They are not, for all their popularity, public spaces. They are private property, and if a mall owner wishes to restrict discourse, he is as free to do so just as you are free to change the channel on your television at home.

So long as there are public streets and telephone poles (of the non-decorative variety), so long as there are public parks and community centres, it is reasonable to give the mall owners their due. But care must be taken - and generally *is* taken - by community leaders to ensure that there remains some public space for citizens to meet, interact and even protest.

But when we turn our gaze once again to the internet, the availability of public place is not so clear. And it is for this reason that events such as the Democracy Network takeover raise concerns.

Just as mall proprietors restrict discourse in their malls and other places, so also private online space providers restrict discourse in their communities. America Online, for example, is well known for restricting dialogue in its discussion areas, much to the chagrin of the AOL Writers' Club.

In addition to restricting bulletin board content - which at least is on public display - America Online also restricts members' email. While in the first instance this is to restrict unwanted advertising, America Online also restricts email which is critical of America Online.

America Online is of course not alone in its practices. A host of online services, including free bulletin boards, online community generators, service providers and more have similar terms of service in their contracts. They do this not because they want to play moral guardian, but because it is more profitable to ensure a safe and inoffensive environment.

And it is their right, their service, and completely legal for them to do so, and we should indeed worry were they to be told by a governing authority what they can and cannot disallow on their sites.

But...

What happens when private online services become the hosts and guardians of online political discourse?

Well, for one thing, it is difficult to get them to provide any room for discourse at all. A survey of Alberta's online news publications, for example, reveals that almost none of them provide any discussion board or public area at all.

This finding is represented on a wider scale. In a detailed study of interactivity in online newspapers, Kenney, Gorlik and Mwangi write, "Previous research studies and the professional literature have indicated that online newspapers have low levels of interactivity, and this study supports that finding. In fact, little has changed in 25 years. Videotex wanted to electronically push news into people's homes, and so do today's online papers."

And if the trade papers are any indication, online content providers are becoming even more reluctant to provide interactivity. In this week's issue of A List Apart, a trade publication for site designers, author Joe Clark (no, not *that* Joe Clark) writes, "once the hallmark of a real Web site, user-contributed content may have outlived its usefulness in E-commerce. Is it time to cut the cheese?"

Why are online content providers so reluctant to open their pages to the public?

For one thing, it's expensive. A moderately popular site like Slashdot can generate hundreds of comments in a few hours. Archiving and displaying

those comments requires massive disk space and powerful servers.

For another thing, it's risky. As Compuserv discovered in Germany a few years back, service providers may be liable for the comments of their readers. Today's service providers are worried about a wide range of potential lawsuits stemming from racist and hate-filled comments, the unauthorized posting of copyrighted material, pirated software and viruses, and more.

And finally, for these reasons and more, it might not be profitable. What characterizes user-contributed comments most of all that they are chaotic, ill-informed and sometimes downright nasty. They make it hard to find good information and they may drive users away from the site.

If political discourse is to move online, therefore, we need to treat at least some online content as we treat public places, and not private spaces.

This is the heart of a proposal advanced by Andrew L. Shapiro in The Control Revolution - to build a network of public commons or 'PublicNet' which would be non-partisan and publicly owned, a place where users can express their political views - popular or not - in a free and fair online exchange.

This, though, solves only part of the problem, as for some people their messages and posts may be filtered by their service provider, while for others access to the site will be limited by proprietary browsers and internet access points, especially if they use custom wireless services.

It is possible - and today, common - for 'public commons' type sites to languish unvisited and unremarked. Online discussions hosted by Industry Canada, for example, are sparsely populated despite a potential user base of 30 million. Perhaps they would be more popular if they were easier to find - but such forums are never going to show up on the front page of Yahoo.

Shapiro proposes that individual opinions gathered from such sites ought to be able to "intrude" on web users, much the way a sidewalk protester intrudes, however briefly, on a pedestrian's attention. But citizens are not likely to want their computers to tell them what they should read or hear.

Another part of the problem is that citizens can be - and often are - critical of their governments. This is a good thing, as it allows for the formulation of new ideas and policies, and for the correction of mistakes and misdeeds.

But if a publicly run online bulletin board is placed on a city or government web site for all to read, the temptation will be almost irresistible on the part

of government to rein in these unwelcome comments. It is largely for this reason that if you send a message to the Prime Minister or the Premier your comments are swallowed by an online form, never again to see the light of day.

And indeed, a community's interests can be seriously threatened by a non-judicious online post. Many community websites are dedicated toward attracting tourists and business opportunities; a complaint about the quality of the town water supply can have a direct economic impact.

We need to decide as a community and as a nation how we are to approach the question of online participatory democracy. We need on the one hand to resist the streaming and filtering of opinion which is common of news sites and many online discussion boards. We need to ensure that online discussions are not marginalized or hidden in obscurity. Yet we must also seek to implement such a system in such a way as to ensure that people and communities are not hurt in the process.

We still need, I think, a public square - a place which is central in an online community, which is actually a *part* of the online community, and yet which does not answer directly to corporations, governments, or any other particular interest. We need to open such squares to the public at large, to display them in public places, and to encourage people to sing, dance, demonstrate or remonstrate.

With such devices, we have the opportunity to transform the nature of public participation in government. Without them, we face the danger of cutting the people out of government altogether.

Community Calendars Online

Improve services and encourage visitors to your town or district home page by adding - and maintaining - a community calendar website.

by Stephen Downes
April 13, 2000

Probably the most popular spot - aside from the Hotel - in Alberta towns and villages is the local bulletin board.

Town fairs, ball tournaments, elections and bake sales are all advertised on this convenient display.

Of course, that works well for people who are in town every few days. But

what about people who live a few more miles away? And what about tourists and other visitors?

Community website managers can keep their citizens - and potential visitors - informed by installing and maintaining a calendar on the town or district website.

The process is two-fold:

1. Plan and install your calendar
2. Maintain your calendar
3. Build Partnerships

Planning your calendar

Setting up your calendar is pretty easy but a little planning will save in the long run.

Web calendar software is widely available and quite cheap - a list is provided below - and is normally installed on your town or community web server.

So - if your town or district already has a website, plan on using the same server to run your calendar software.

Do not purchase software until you have confirmed that it will run on your web server. Check with the service provider or individual who runs the server. This is the person who will have to install the software.

But before you commit yourself to the technology, make sure you have the human element ready:

- Who will be in charge of installing the software? (Probably your service provider)
- Who will be in charge of the calendar after it is installed? Some person in the town or district office will have to handle the 'admin' account and be responsible for editing or deleting entries from time to time.
- Who will be allowed to post items on the calendar - will you open it up to everybody? Or will entries have to be entered by municipal staff?
- Do your staff have the time to post entries to the calendar? If not, are you prepared to allow other people to post entries? Who?

The bottom line here is: before you install the calendar, have a plan in place

for ensuring that it contains lots of entries. Nothing is worse than an empty calendar.

Installing Your Calendar

All calendar software is different. The trick here is to, first, buy the right software for your needs, and then second, work with your service provider or webmaster to install the software.

First, determine how much money you want to spend. You can get free calendar software or you can pay thousands of dollars. But remember - while all the software works, in the main, you get what you pay for.

Next, look at the list of calendar software packages below and pick one or two which suit your needs. Be sure to follow the links provided, as most vendors provide sample calendars on their websites.

Third, consult with your service provider or webmaster about installation (if you *are* the service provider or webmaster - make sure it's the right OS, follow the instructions, and remember to configure the calendar for your particular server).

Maintaining Your Calendar

A good calendar requires regular maintenance. Nothing is worse than an empty calendar. Remember, people aren't looking for what you've done in the past - a calendar requires events in the *future*.

Probably the best way to manage a good community calendar is to 'draft' some volunteers from various agencies around town to submit their own events. A school counsellor, church volunteer, service club representative - all these people will be more than willing to help contribute events.

The business community may also be counted on for regular contributions. Ask auction agents to submit local auctions, for example.

Community events should also be entered by municipal staff. Notices of council meetings, by-law enforcement dates, elections and more should all be added to the calendar.

If the public at large cannot contribute directly to the calendar, make sure they have some means of advertising their events. Post an email link and encourage people to submit their bake sales, social gatherings, and other events.

Most calendar software also supports hot links - this way, a person browsing a calendar can jump right to a web page describing the item or event listed. Encourage all contributors to create a web page on their own site with more details.

The calendar administrator should check the calendar regularly to monitor submissions. This is especially important if the public at large is allowed to submit their own entries - some of them might not be suitable for a general audience!

Build Partnerships

The best kind of community calendar is one which runs itself. Over time the community will be better served if the community calendar is run by a partnership of government, businesses and community groups.

Any partnership needs one or two 'champions' to stimulate the project and keep it moving. While the municipal government may begin as the lead player, other agencies - such as the community newspaper or a service club - will be willing to assume this role over time, especially if the calendar becomes a success.

Plan on this ahead of time, and be prepared to create a 'Community Calendar' society with representatives from these agencies.

Calendar Software

Event Calendar This is a great calendar of events script that has some great functions and is highly customizable. It is free to non-profits and educational institutions. Much better than all of the table based calendars being offered, at least looks wise.

PerlCal Perl based calendar software, flexible, and free to educational institutions.

Shared Calendars Standard web calendar by Boutell. Priced in the mid-range depending on the number of users (i.e., the number of people who have write access). Plain display and unfortunately slow.

Internet Calendar Applications Basic web based calendar - features multiple languages. Server license is toward the high end of the pricing scale.

NetCalendar NetCalendar is a nice basic web calendar suitable for newspaper and organizational websites. Pricing is very reasonable. Interface

is fast and intuitive.

CalendarCentral The Rolls Royce of online calendar software, provides HTML or elegant Java view, easy filtering, multiple users, and so much more. The price tag will make you gasp - if you have to ask, you can't afford it.

Calendar Internet Decent calendar software including a nice search feature. Best of all, sells a server license (as opposed to user licenses, as offered by Great Hill and WebEvent) so you can have many users inputting events.

Calendars for the Web Web based calendars with remote user input by Great Hill Corporation. A bit pricey but may many calendar views - check their demo.

WebEvent Highly rated online calendar. Drawback: the cost. Still, if you want a calendar that does it all and works on almost every platform, this is the one to get.

MuniMall - A Review

Overview of MuniMall, an educational portal for the municipal affairs community, with development highlights

This Power Point presentation is a systematic description of the major elements of MuniMall, an educational portal designed for the Municipal Affairs community.

Click Here to view the presentation (Power Point Format).

Also, Click Here to read an overview of the MuniMall project (MS Word Document).

S2000 - What is a Smart Community?

Roger Caves, coordinator of the Graduate City Planning program at San Diego State University, is in the business of helping officials and administrators follow the difficult road toward becoming a smart community.

Roger Caves, coordinator of the Graduate City Planning program at San Diego State University, is in the business of helping officials and administrators follow the difficult road toward becoming a smart

community.

He identified five major aspects of the concept:

1. Any sized community can be a smart community. It's not about size.

2. It is about technology, and a smart community assumes a layer of information technology to enable the process.

3. But it's not about technology, either. Mainly, it's about cooperation. It's about bringing all the parties in a community to the table.

4. And it's about understanding that the process is never complete. It's a *process*, not an end goal.

5. And it represents a fundamental change in the way communities do business.

You do not *build* smart communities (which in my mind adds an ironic twist to the United Way campaign slogan, which asserts that we are "Building caring, vibrant communities). You *create the conditions* in which a smart community can *grow*. The *people* build the smart community:

1. You need to educate members of the community and show them what the new technology can do

2. You need to work with all sectors of the community to identify common issues and needs.

3. You need to engage in a planning process to address those needs.

4. And you need to evaluate the effectiveness of the program.

What a smart community is *not* is a 'field of dreams'. You cannot simply assume that, if you build it, they will come. A smart community must reflect community needs, serve community interests, and indeed, be run and owned by the community as a whole.

S2000 - Knowledge

Ken Stratford, Commissioner for the Greater Victoria Economic Development Corporation, manages and promotes a website called CITISmart - CITI stands for Community Information Technology Institute. It's a project similar to MuniMall, but with some important differences.

Ken Stratford, Commissioner for the Greater Victoria Economic Development Corporation, manages and promotes a website called CITISmart (http://www.citismart.net/) – CITI stands for Community Information Technology Institute. It's a project similar to MuniMall, but with some important differences. I'll comment on that later.

Stratford had as his topic the application of knowledge management in smart communities, and he has an intuitive understanding of the concept. Knowledge management, to Stratford, may be likened to grabbing chunks of information from other sources and using them to develop an argument.

Of course, there are forms of human reason other than argument (and to be precise, three other forms of reason: explanation, description, and definition), but the concept applies equally well elsewhere. Need a taxonomy? Grabs chunks of existing taxonomy from elsewhere and create your own (this ensures that *your* taxonomy will be interoperable with the others).

Knowledge management techniques, asserts Stratford, will be used in smart communities. This means that – to Stratford – the development of smart communities will resemble architecture and engineering much more than it does, say, art and design.

He didn't say this, but Stratford is probably thinking of the information-theoretic approach to knowledge management and database design, concepts covered by, say, Jan Harrington in *Relational Database Design*. He is probably also thinking of the principles of RAD – Rapid Application Design – as applied in the computer software industry. And so far as that goes, he is right to do so. So far as that goes.

Stratford's CITI project is built according to those principles. The CITI project is intended to be a resource for municipal administrators and civic officials. Stratford identified a four-step development process:

1. Build project files around 'best (and worst) practices)

2. Obtain 'citizen information' through, say, needs analysis

3. Identify 'communities of practice'

    a. "harvest" the knowledge of the community

    b. adopt that knowledge, adapt it to your needs, innovate, and share

c. For example: Industry Canada's Information Resource Exchange

4. Adopt what KPMG calls a "rapid release" strategy – release a small but impressive body of knowledge bank and make a commitment to grow and develop from that base

CITI may contain an impressive collection of resources; Stratford asserts that he is aggressively collecting information. People at Smart 2000, for example, are being asked to contribute to CITISmart.

CITI may contain an impressive collection of information, but I don't know. You have to be a member to view this information. Membership (sold at the institutional level) costs $2000.

You can see Stratford's point of view. CITISmart costs money to maintain and expand. But then again, it is possible to build comprehensive sites like, say, Jurist (http://jurist.law.pitt.edu/) and make it available to all. It depends on your funding model.

But my question is this: of what benefit is it to anyone to gather all this information, store it in one place, and to lock the door? What incentive, what motivation is there for people to contribute? Stratford argues that the relinquishing of information should be based on selfish interests. Yet there is no upside to providing – for free – a valuable resource to Stratford's copyright domain.

The fact is this: information about *any* domain is distributed throughout that domain. Information about municipal governance, for example, is distributed throughout the 400 odd municipalities in Alberta, throughout its universities and colleges, throughout similar sites around the world. A centralized collections system will not work. Too much information is missed; too few people get to see it.

Campus Alberta

Alberta's Minister of Learning, Lyle Oberg, and people designing community services websites, face exactly the same problem. On the one hand, they are being very progressive, building the infrastructure needed. On the other hand, they need to regulate the information carried on these systems.

Alberta's Minister of Learning, Lyle Oberg, and people designing

community services websites, face exactly the same problem.

On the one hand, they are being very progressive. Oberg talked about Campus Alberta – a way for anyone in Alberta schools to learn from any institution in the province. He talked about the work underway to provide broadband internet access to schools. And he talked about new initiatives, new alternatives in learning.

On the other hand, he stressed, it is important that fly-by-night dollar-degree institutions not be allowed to practice their ploys in this province. So parallel with the advent of new learning opportunities is a new focus on accreditation to ensure that Alberta students receive a high quality of education.

This two-pronged approach is being incorporated into Campus Alberta, as described Garry Popowich and Bill Muirhead, both of Alberta Learning. As Premier Klein stated in the Campus Alberta discussion paper (see http://www.aecd.gov.ab.ca/campusalberta/discussion_page.htm),

> "Our vision is for Alberta to become like one big campus where students enrolled in one post-secondary institution can take courses from any college or university in the province, either on-site or on-line from their homes, or on the job. We want to make lifelong learning a reality in this province."

In order to enable this, Campus Alberta is building a library of educational objects available for use by teachers throughout the province. For example, one resource includes a searchable list of thousands of biological images, complete with annotation. It is a tremendous resource and will be available across Alberta.

At the same time, said Popovich and Muirhead, care must be taken to ensure that the materials available through Campus Alberta are of high quality. Therefore, a team of subject matter experts must accredit each item.

It was at that point I choked on my lunch. Politically, it probably wasn't a good idea to point to a huge, gaping hole in the concept. But there is a huge, gaping hole in the concept.

An educational object repository will contain hundreds of thousands of objects. Think of it as being similar to every college, university and school library in the province, every newspaper and magazine article, every teaching aid, software program, or wall hanging.

Now imagine that each and every one of these must be reviewed by a panel

of experts before it is used in an Alberta school, college or university.

It won't happen. It can't happen. No jurisdiction in the world has the staff and the resources to fund and mount such a massive exercise. To be sure, the resources available *have* been reviewed. But to continue in this way would require an ongoing commitment of staff and money.

Moreover, because it would pose such a massive bottleneck, such a system would preclude the possibility of any new materials being introduced into the system. Were I a publisher, and I had *also* produced a library of biological images, one which might even be better than the first, I would not be able to make my materials available to Alberta schools because of the time and cost of prior review.

What is happening as a consequence is two-fold: first, Campus Alberta is in fact negotiating with large publishers for rights to material to be placed into the repository. And second, there is already an expectation that teachers and students will also look *outside* the repository for learning materials.

A similar situation exists when you look at prior accreditation of learning institutions. Nobody could accredit the thousands (2,000 at last count in the United States alone) of new institutions coming online. And these institutions will not spend the time and money to go through a lengthy accreditation process (and certainly not for a small market such as Alberta). Thus, only a few of the larger institutions are being admitted into the system. And also thus, people are looking *outside* the system of accredited institutions for learning opportunities.

It's a two-edged sword. If you do not ensure quality standards, you cannot ensure that the resources will be of high quality. But if you do ensure quality standards, you ensure that most resources will not be admitted into the system, causing people to look elsewhere. And because people *can* look elsewhere, they *will*.

It's hard to believe, but government will soon be out of the business of regulating education. If it is committed to ensuring a quality education for Albertans, it will have to look at creating a mechanism where *individuals* are able to assess the quality of a resource or program. This means two things:

1. Putting *all* of the resources into the same system

2. Creating a means where resources may be independently reviewed (or certified) by individuals or interested parties.

Accreditation is the immovable object. Learner centered learning is the

irresistible force. And in a revolution, things that are moving are more likely to survive than things which are standing still.

Alarming Article on First Nations Suicide

Some of the causes, and some of the cures, for unacceptably high rates of suicide in First Nations communities. Or any community, for that matter.

StillHazel wrote,

Link to story (no longer active)

Ontario Native Suicide Rate One of Highest in World, Expert Says

"PIKANGIKUM, Ont. (CP) - A rash of suicides on this remote Ojibwa reserve is 'a disaster' that may earn the community the dubious distinction of having the highest suicide rate in the world, says an international expert on aboriginal suicide."

Things are not much better on the more impoverished U.S. Reservations. Anyone have any theories as to causes; ideas as to solutions?

Suicides among First Nations youth is a problem across Canada. Violent deaths and deaths through dangerous addictions (such as sniffing gas) are also very high.

I've visited a number of these communities, taught their youth (and adults), and lived in some of the towns and villages nearby. It was at once a rewarding and agonizing experience.

There is, of course, no single cause. Alcoholism and substance abuse is a widespread problem on Canadian reserves. There is a lot of violence, a lot of broken homes. Many of the problems are self-replicating - one youth, for example, committed suicide just list his father six years before. One youth wants to die by sniffing gas just like her brother did last year.

First Nations communities have two major strikes against them: first, they are isolated - I mean, really isolated, with no roads or rail, sporadic air service, limited television and radio - and second, they are poor - unemployment can reach fifty percent and there is no prospect of new work (because they are so isolated).

Add to that a dearth of social services. First Nations' education has been historically poor - many of today's adults grew up in abusive residential

schools, and today's children learn in dilapidated buildings with out-dated texts and too few teachers. Health services are often minimal. Support services, such as family counselling and treatment centres, do not exist.

Many First Nations youth simply give up. They see what life is like in the outside world (or at least, what life is like in Detroit and Toronto - these are the channels carried on cable in the north) and know that, with so much stacked up against them, they have no hope of taking part.

Others have lost all sense of cultural values and community. Their parents - if they survive - are alcoholics or in jail, their grandparents are in most cases dead, their band chiefs and elders are abusive and corrupt, their knowledge of religion and traditions - both Christian and First Nations Spiritual - is sketchy, incoherent and incomplete. With no hope, and no values or traditions, there is nothing to live for.

In communities where effective change is happening - and I've seen this firsthand - a series of initiatives is required: none works on its own, and even when applied in tandem, change is long and painful:

- Educational opportunities are essential, both for children and adults. This education must be available locally and in alternative formats (there are many single parents in First Nations communities, for example). Education needs to be supported with educational counselling - people who get to know the students, who encourage them, who wake them up in the morning, if necessary, and who respond appropriately if they show up Monday morning with a black eye. Education must be culturally appropriate and geographically relevant - it should not pander to them, but it should not assume a suburban lifestyle.

- Community support services are required. First and foremost, this means adequate police and judicial services - both are sorely lacking in remote communities. Local health and counselling services are required and the staff need to be culturally sensitive and trained to deal with substance abuse, violence and family conflicts, and more.

- A cultural infrastructure is essential. In small American towns this means a church, a library, a baseball diamond and a malt shop (or something like that - you know what I mean). In First Nations communities it means a Friendship Centre, the services of a sweat lodge, elders, powwows, usually a church, a hockey arena, and staff to maintain these services. People in the community must have something to do, and that something must be relevant and

meaningful.

- Transportation and communication need to be improved. This means alternative media and broadcasting, both in terms of First Nations culture and language, but also alternative in the sense of counterculture and non-mainstream programming. They need roads, and buses along those roads. Air service must be improved. The idea is to promote mobility - not so that they will leave for good, but so they can travel to other communities and to the cities in the south.

- Employment opportunities are essential. Because these communities are so remote, they must center on primary industries based on local resources. Because there is little local capital - and few private investors willing to risk their money on such an unstable community - government seed money is usually the only way to launch a resources based industry. Examples of such industries include sawmills and wood processing, fishing and fish products, tourism and related industries, mineral production and refining, and the like.

- Self governance. First Nations people have historically been treated like wards of the church or state, unable or unwilling to manage their own affairs. The decisions of these governors have usually been based on European cultural assumptions which have little or no relevance in the north (the myth, for example, of people living in cottage-like farms around a community is unworkable in a boreal forest). The types of industries, education, cultural services and other support have reflected southern Canadians' needs, not First Nations', and have thus often been inappropriate. And many of the resources on First Nations' land have been stripped by outsiders, invited and sanctioned by a remote government with no awareness of the impact this would have on local lives.

These would be a start - and in many communities they have started, though in many communities they exist only as broken promises. Part of the problem is that even if you do all of this, it will be a generation before you see significant change. I can name a half dozen reserves which have all of these services and which have only in the last few years started to turn themselves around. It is a long and painful process, made harder by half-hearted efforts and suspended social programs, and no matter what you do, some of today's people aren't going to make it.

The alternative is to let things continue as they are, but as the original post implies - and as I agree - that is unacceptable.

Building a Learning Community

Presentation at Trinity College, University of Melbourne, for TAFE Frontiers, Trinity Learning Innovation Centre and Austhink. Presented April 18, 2001. Covers: what is a learning community, why we want them, eight features of a successful learning community, and facilitation of a learning community.

[This into text was written by Mark Fletcher, so disregard the adjectives...]

April, 2001 5.30pm-7.30pm at the Buzzard Lecture Theatre, Burge Building, Trinity College Royal Parade, Parkville, Victoria, Australia

Abstract

Stephen Downes, the renowned Canadian web learning expert will speak on "Building a learning community". Stephen designed and built the highly successful MuniMall on-line community in Canada (www.munimall.net), has published and presented widely on related topics (www.downes.ca) and consults extensively on practical and conceptual issues in education in the new economy.

A key theme of Stephen's presentation will be that successful learning communities have eight main attributes:

1. Focus on learning materials
2. Creation of a sense of whole
3. Integrate content and communication
4. Appreciate participant-generated content
5. On-going communication between members
6. Access to multiple resources and information
7. Educational orientation
8. Sense of history

Stephen will review these attributes in the context of emerging trends in learning and technology. Stephen will also outline his work in Australia as a visiting expert with The Australian Thinking Skills Institute (Austhink) contributing to the development of Austhink's world leading reasoning skills improvement programmes (www.austhink.org).

This lecture has been made available by the kind assistance of TAFE frontiers, Trinity Learning Innovation Centre and Austhink.

Background

TAFE frontiers is an organisation aiming to bring strategic change to the provision of vocational education and training in Australia. Their main

objective is to foster innovative learning methodologies and technologies in TAFE products and services, and develop networks to support flexible delivery. For more information see www.tafefro ntiers.com.au

The Trinity Learning Innovation Centre aims to actively and continuously explore possible further developments in education, with a particular emphasis on the use of technology to enhance educational outcomes. Trinity College is a College of the University of Melbourne that aims to offer its students the best all-round educational experience in an Australian university. For more information see www.trini ty.unimelb.edu.au

Austhink - The Australian Thinking Skills Institute - is an association of individuals and organisations specialising in critical thinking. Austhink engages in research, education, consulting and training, and the promotion of critical thinking. For more information see www.austhink.org

To view the presentation, Click Here

Resources and References

The River
The River is an online community made up of people who left the WELL after it was sold.
http://www.river.org/

The Virtual Community
Howard Rheingold's classic treatment of the online community, based on his experiences at the WELL and the River.
http://www.rheingold.com/vc/book/

The MediaMOO Project: Constructionism and Professional Commu
MediaMOO is a text-based, networked, virtual reality environment (MUD) designed to enhance professional community among media researchers.
Amy Bruckman and Mitchel Resnick Epistemology and Learning Group MIT Media Lab. Convergence, 1:1, Spring 1995.
http://asb.www.media.mit.edu/people/asb/convergence.html

Talk City
An online community with a focus on chat rooms.
http://www.talkcity.com/

Daoism Depot

A portal and online community site dedicated to Taosim. Includes links, resources, discussion and more.
http://www.edepot.com/taoism.shtml

University of Leadership
ULEAD. A comprehensive skills training program for youth leadership through community service. An interesting initiative in online learning.
http://www.ulead.org

Purchase Circles
This new service by Amazon.Com provides highly specialized bestseller lists. They keep track of how many items they send to particular zip and postal codes, and how many orders come from each domain name. They then aggregate anonymous data and apply an algorithm that constructs bestseller lists of the items that are more popular with each specific group than with the general population.
http://www.amazon.com/exec/obidos/subst/community/community.html

Chapter 3: Scalable Systems for Online Communities
Comprehensive discussion of how to build an online community and portal site. Essential reading. by Philip Greenspun, part of Philip and Alex's Guide to Web Publishing
http://photo.net/wtr/thebook/community.html

Online Community Report
Jim Cashel's home site for his regular mailing list publication, Online Community Report. back issues, keyword search. Nice resource; useful list.
http://www.OnlineCommunityReport.com/

AdResource
Ad Resource is a listing of resources for Web banner advertising and marketing community. Web marketers can use the site to do research, build contacts, and keep up to date on the latest happenings in Internet advertising.
http://www.adresource.com/

Building Online Communities
A guide to building online communities. good discussion, but fairly light. By S. Ryan, December, 1997. CNet.
http://www.builder.com/Business/Community/

Chhosing the Tools for Your Community
By Jim Cashel for CNet. A good overview of the tools and services you can access to build your online community. tends toward commercial (read:

expensive) products. August, 1999.
http://www.builder.com/Authoring/CommunityTools/

Yahoo Clubs
Online community hosting facility.
http://clubs.yahoo.com/

Inside the Web
Online community hosting service which lets users set up their own discussion boards.
http://www.insidetheweb.com/

Delphi Forums
Online community and discussion forum hosting service.
http://www.delphi.com/

Deja.Com
Online community hosting site.
http://www.deja.com/

EGroups
Online community hosting.
http://www.egroups.com/

EXcite Communities
Online community hosting site.
http://www.excite.com/communities/directory/

ILand
dedicated online community and web hosting.
http://www.iland.com/WebDiscussion.htm

Dynopolis
A full service but expensive online community hosting site.
http://www.dynapolis.com/html/community.html

WellEngaged
Full service and quite expensive online community hosting service.
http://www.wellengaged.com/

NetAid
Beginning with a concert, NetAid "is a long-term effort to build a

community of conscience dedicated to providing basic needs: food, shelter, legal protection, human rights and health care. NetAid artists and sponsors will work to build this new community - long after today's concerts are over."
http://www.netaid.org/

PR Newswire
A news syndication service covering most aspects of the online community, but focussing on the media and financial community.
http://www.prnewswire.com/

Go Ahead and Sue
Interesting article about hacking 'expert' John Vranesevich, who has been adopted by the news media as an authority despite his general disregard in the hacking community. By Adam L. Penenberg, Forbes Online, September 27, 1999 (if the link above doesn't work, try this archive link).
http://www.forbes.com/columnists/penenberg/

Http://www.sfu.ca/mediapr/Releases/News/1999/September1999/Online.html
A new SFU research initiative recently received funding to develop standardized electronic publishing tools that will enable the academic community to fully embrace online publishing and receive their scholarly journals online. Simon Fraser University news release, September 17, 1999.
http://www.sfu.ca/mediapr/Releases/News/1999/September1999/Online.html

TheNode.org
theNode.Org is the newest incarnation of the Node website. theNode.org will be an international community of instructors, trainers, designers and administrators with a professional interest in teaching with technology. Services will support users in developing and sustaining effective education and training practices and in exploring new ways to use technologies to support their learning objectives. Individual memberships are $200, while institutional memberships are a lot more. Who knows? It might work.
http://thenode.org/

Developing Classroom Communities in Distance Education
Interesting: he writes, "inquiry on the development of classroom community in distance education via asynchronous computer mediated conferencing. From my literature searches, I've discovered that the collaboration that occurs in such classroom communities is necessary for the process that others have called shared cognition." By Donald J. Winiecki.
http://coen-nt1.idbsu.edu/DWiniecki/Research/classroom_community.htm

Sales.Com
Online community for the sales profession. Plenty of services and resources, with limited interaction.
http://www.sales.com/

VoxCap.Com
Online community which provides free turn-key community services to organizations participating in civic activism and other forms of online democracy.
http://www.voxcap.com

Kasparov vs the World
Official Microsoft site of the famous match between chess champion Gary Kasparov and the rest of the world playing as a community. And the whole thing was to sell credit cards! Amazing.
http://www.zone.com/kasparov/Home.asp

Creating Community Online
Interesting and useful discussion of how to approach online learning communities. By Sharon G. Solloway and Edward L. Harris, Educom Review, Volume 34, Number 2, p. 8-13, 1999.
http://www.educause.edu/ir/library/html/erm99021.html

A draft manifesto for local communities
To start the debate, a group of community networking experts have drafted an 'open manifesto' which will be developed through public discussion. Interesting. BBC Online, October 26, 1999.
http://www.bbc.co.uk/education/webwise/communities/manifesto.shtml

Online Learning Community for Support Staff
Example of an online learning community. Fred Hutchinson Cancer Research Center
http://www.fhcrc.org/~learncom/index.htm

Frontiers
This is a really interesting online learning community which does a lot of things right.
http://www.tinman.org/Frontiers/Pavilions.html

Service Learning Internet Community
There are many sorts of online learning communities - this one from California State University is set up more as portal for their online courses generally.

http://www.slic.calstate.edu/FMPro?-db=portals.fp3&-token=home&-format=agindex.htm&-script=updatefrontpage&-Findall

Learning Community
This online learning community for the San Francisco Education Fund is really nothing more than a shared resource base, with a little collaboration.
http://www.sfedfund.org/lc/lc.html

Dioplomats Online
Diplomats Online (DOL) is an online learning community addressing the needs of teachers and students of international relations. Sponsored by the American Foreign Service.
http://www.diplomatsonline.org/html/purpose.html

BrainTrack
Self-billed as the world's most complete education index. It's pretty impressive, but misses some - including my former employer, Assiniboine Community College.
http://www.braintrack.com/

American Society for Training &; Development
ASTD's mission is to provide leadership to individuals, organizations, and society to achieve work-related competence, performance, and fulfillment.
http://www.astd.org/virtual_community/about_astd/

Better Results by Linking Citizens, Government, and Performance Measurement
Providing effective public services and improving our communities are challenges that cities and counties face as we move into the 21st century. These twin challenges are reflected in two important trends in local government management:

- An increasing need to measure performance and demonstrate results.
- A growing emphasis on community participation in policymaking and problem solving.

Martha Marshall, Lyle Wray, Paul Epstein, and Stuart Grifel, PoliCity, undated.
http://www.policity.com/library_reference_21st.html

Virtual Communities, Inc.
Virtual Communities Inc. provides solutions for building online communities and operates of community sites targeted to U.S. ethnic and

affinity groups. VCI's community-enabling software, Community Management Solution (CMS), is a content publishing software with interactive components designed.
http://www.vcix.com/

New Directions in Distance Learning
Description of the triad model of distance learning, joining student, instructor and community based facilitator. Open Learning Agency Archives, 11 May, 1998.
http://www.openschool.bc.ca/.archives/nddl/about/model_tx.html

Online Community Resources
Good set of highly relevant links; includes information on community design, online facilitation, mailing lists and more. Full Circle Associates.
http://www.fullcirc.com/commresources.htm

Service Learning Internet Community
SLIC is an organization based in California which is developing partnerships and programs directed toward a learning object economy.
http://www.slic.calstate.edu/

Nethics
Information and copyright resources for the online learning community.
http://www.inform.umd.edu/CompRes/NEThics/law/copyright/

Pearson, AOL Link to Create Online Education Network
Pearson Pic, the world's largest textbook publisher (think Simon & Shuster) is teaming up with AOL to create an online education network. Major news - which will be largely ignored by the education community. Bloomberg, 15 March 2000.
http://quote.bloomberg.com/fgcgi.cgi?mnu=news&ptitle=Technology&tp=ad_tech&T=news_storypage99.ht&s=7d7afb3058feda8fd5e192b5737adee8

HomeTown W.E.B.
Hometown, W.E.B. (Where Everyone Belongs) is an interactive virtual community dedicated to life-long service and learning. Based on a real-life community, Hometown offers something for everyone. Created by Ruth Aldrich.
http://hometown.tierranet.com/

Fathom
Online learning community with access to online course materials and knowledge products (aka learning objects), discussion and more.
http://www.fathom.com/

AOL at School
A combination learning portal and online community for teachers and students, with the opportunity for teachers to select and purchase learning objects for their class.
http://www.school.aol.com/

Communities of Practice
The key to knowledge strategy. How online communities help a community of practise add to its knowledge base. Slide show presentation. Etienne Wenger, Ph.D., September, 2000.
http://www.eknowledgecenter.com/sfc/CoPs_files/v3_document.htm

Chapter 5 ~ Content

Participant's Opinion

If distance education design - especially on the internet - is to become relevant to the student, and cost-efficient to the teaching institution, designers are going to have to look at ways of dividing course content into much smaller chunks, to be assembled into a learning package on an as-needed basis.

Posted to DEOS-L 20 Jan 1998

Peter Faulhaber writes, *Now we want to use internet. The following course we want to offer: The student apply to the course via on online Intake form. He chooses which parts he want to learn about e.g. Word 97. The material is cut into chunks and is stored in a Database. When the student made his choice via a server the material is gathered, lay - out and send via e-mail to the student. The student can print out is fully personal learning material. We choose this option for two reasons: 1. Reading via a computerscreen is still much more tiring than reading a print out material. 2. The student don't have to switch between Internet and e.g. Word 97. Help is offered via an Internet site. The student can send an email to the trainer, chat to the other students, look into a FAQ and look into a Database.*

Peter's methodology is illustrative of a principle in distance education which has not been discussed to any great length on this list: customization. While there has been a lot of chat about learner-centred course design, few people have challenged the idea that the basic unit of instruction is the course.

In fact, if distance education design - especially on the internet - is to

become relevant to the student, and cost-efficient to the teaching institution, designers are going to have to look at ways of dividing course content into much smaller chunks, to be assembled into a learning package on an as-needed basis.

At Assiniboine, we are designing our courses in three hour chunks called "modules". This is documented at http://www.atl.ualberta.ca/downes/naweb/am.htm By designing courses in this way, we can assemble new courses in a matter of minutes to meet the precise demands of the student, our corporate partners, or government. In a demo last week, for example, I designed an eight hour course, called "Internet Communications", in about 10 minutes by combining modules from our Computer Systems course and our English course.

Peter is using this methodology to build what are, essentially, print courses supported by email. His reasoning, quoted above, is two-fold: it's hard to read from computer screens, and it's hard (especially for beginners) to switch between two applications at once.

But I think students will find this mode of delivery limiting. True, courses can and should be supported by print material. As the Wired editors pointed out some months back, print is an unparalleled medium for high-content thought. And web designers have known for some time that users do not read web pages, they scan them. However, not all aspects of all courses are best delivered via print media.

Computer programs are a good example of this. While it is possible to learn how to run software from a book alone (the 'Teach yourself in 21 days' series is an excellent example), it is easier to learn if you see the operations demonstrated on the screen in front of you. The tutorial in "Scientific Notebook" is a good example ("Scientific Notebook" is a math/science document processing program; highly recommended).

CD-ROM versions of computer courses have been doing this for some time now. The program operation is captured (with products like, e.g., Lotus's "Screen Cam", another recommended product), saved as a video file (usually .avi) and stored on the CD-ROM. Such video clips are then displayed at appropriate times by, say, Macromedia's "Director".

The problem with such demonstrations, as they apply to internet delivery of course materials, is that they are much too large to be delivered reliably over the internet. Bandwidth is currently too small. This is a situation which will change rapidly. We are on the cusp of the 10 megabyte/second internet era. Additionally, file compression can reduce even large movie files to a fraction of their original size. And video streaming, while still in its infancy,

is fast becoming a proven technology.

But an additional problem with the print-based / email supported model that Peter describes is that it too much resembles the traditional 'do-it-yourself' approach to distance learning. The student is viewed as isolated, essentially working on his or her on, obtaining tutorial support only on an as-needed basis. In my opinion, this factor of isolation is one of the major factors preventing distance learning from becoming much more widespread than it is today.

For education is not merely an intellectual activity, it is a social activity. The process of learning requires not only the acquisition of new information, it also requires validation and reinforcement. People need not only to know what they've learned, they need also to be told that what they have learned is socially appropriate, that the manner in which they express that learning follows community conventions. The classic case of the self-taught learner is one who - embarrassingly - mispronounces "Socrates" in a social gathering. The social dimension of learning mitigates errors in the nuances of what is learned.

For that reason, much more interaction is recommended. Communication, not only with the instructor, but also with other students, is to be encouraged. And where possible, communication in several media - voice and video, specifically, are preferred over a simple email model. Again, the technology which supports this is in its infancy. However, like streaming audio, it is on the verge of becoming widely accepted.

As an initial first step, I would recommend supplementing your email support and web site with two key resources: a discussion list, and a chat area. Here there are many options to choose from. David Woolley's excellent "Conferencing on the World Wide Web" site will help you there. http://thinkofit.com/webconf/ Give the link a little time; it's not the fastest in the world. For comments on integrating communication into your course materials, see my "Effective Interaction and Communication in Web Based Courses" (contents page: http://www.atl.ualberta.ca/downes/cmc96/contents.htm)

One nice piece of software we are working with at Assiniboine is called ICQ (I Seek You). http://www.mirabilis.com (I think they also have http://www.icq.com running now). This program lets you define a list of friends (typically, your class) and lets you know when they are on-line. It allows you to quickly send short messages, transfer files, chat in real-time, refer URLs, and launch any of a number of conferencing programs.

But plan for more intense communications. With higher bandwidth and

better compression, desk-top videoconferencing is rapidly becoming a reality. The best software I have seen for this is Microsoft's Netmeeting (http://www.microsoft.com). In addition to video-conferencing, it also allows you to manipulate a remote screen. This is very useful if you wish to demonstrate an application.

The idea behind such methods of improved communications is not only to transmit learning materials more effectively, it is also to build a web-based community. When students become a member of a community, their learning takes on a larger role in their life. Logging on, chatting with the other students, accomplishing a module, passing a test - all these things begin to *matter* to a student, not only in a learning context, but also in a social context. Achievement is reinforced when achievement takes place in a community which rewards achievement (conversely, achievement is minimized when achievement takes place in a community which does not reward achievement, or even, when it takes place outside a community at all).

What this means at your end is commitment to more ongoing resources and support for your internet courses. If you intend to market globally, plan on staffing your site with chat moderators and tutors 24 hours a day, 7 days a week. Your convenors should not only be knowledgeable in the subject area, they should also be warm, welcoming folk who encourage new students (who will be hesitant at first) deeper into your web community.

This is not only good education (and it *is* good education), it is also good business. You are not only teaching your student a new skill, you are building a relation with that student. By drawing the student into your community, you are ensuring repeat business and tremendous word-of-mouth (one of the most powerful forces on the net) advertising.

Again, as with the course materials, your interaction and communication with the student should be as completely customized as possible. Moderators should be able to draw from your database all relevant information about the student and his or her classes. Students should be encouraged to seek out peers with similar course (module) selections and expressed interests. Corners of your site should be assigned for each of the various groups which will inevitably form. Student-generated content will greatly enhance your site's value and usefulness, and it will also increase the students' sense of belonging to the community.

Distance education in the future will succeed by emulating those aspects of traditional education which were so successful - the social aspect, the community aspect - and by discarding those aspects of traditional education which were not successful - flat one-dimensional presentations, cookie-

cutter content. By providing a customized, community-based, content-rich learning environment you will provide students with much more than mere training, and will be well on the way to providing a rewarding distance learning experience.

Free? In What Sense Free?

Jon Katz seems to believe I am accessing content for free, that I am somehow sponging off the good folks at Microsoft, and that if I don't support Slate financially, it is I, and not the content provider, who is to blame. Sorry Jon, I don't buy it.

Posted to HotWired 3 Mar 98

Jon Katz seems to be labouring under the illusion that my access to *Slate*, *Hotwired*, and their ilk is, somehow, free. Let me correct this small illusion.

In fact, my habit of web-wandering is one of the most expensive addictions I have ever had. To start off, I must pay for my computer, roughly $2000 Cdn., then more memory, a new hard drive, a better Soundblaster, etc., until I was net-ready.

Then I purchased a telephone account for $25 (plus about a hundred bucks installation), plus internet access ($30 per month plus install), then I set about obtaining software. My copy of Windows 95 (happily, only the upgrade) cost me $150, Netscape retailed at $60 (though I avoided that by routinely updating beta versions), so on and so forth.

In order to learn to use and appreciate all this equipment, I purchased a number of books and magazines, including, monthly, the dead tree version of Wired.

But Jon Katz seems to believe I am accessing content for free, that I am somehow sponging off the good folks at Microsoft, and that if I don't support *Slate* financially, it is *I*, and not the content provider, who is to blame.

Sorry Jon, I don't buy it (and I *won't* buy it), for a number of reasons.

First, there is a *lot* of very good and very free content out there. Some of it I provide (specifically, a Guide to the Logical Fallacies, the Brand on Pages, and a significant On-line Education resource). Most of it others provide in the same spirit of sharing that I do.

And the fact that my information is provided for free does not in any way

indicate that it is of inferior quality, any more than the fact that *Time* charges for its material is any guarantee that the magazine serves as something more than litter box liner.

Second, there are alternative ways of paying for web content. As mentioned in a previous post, website advertisements are one way. True, perhaps, you can't make a bundle, especially if you don't have the hits. But why should you need to make a bundle? It's only if you bloat your operation prior to counting a single hit that you run into problem. However, if you follow the tried-and-true business model of keeping costs lower than revenues, then you'll be fine.

And this isn't a question of whether or not advertising works. We know it works. It supports items as varied as a global cable news network, newspapers, magazines, radio broadcasts, concerts in the park, and sporting events. On the net advertising has been less successful - but could that be because of the time and cost required in order to gain access? Wouldn't the net be a more financially viable medium if it was *cheaper*, not more expensive?

Third, there is significant incentive to provide free content on the internet; this incentive drives companies like Microsoft and Netscape to provide significant internet presences. And it is: the desire for internet content leads people to *buy their products*. Absolutely *nobody* would buy Netcsape if there were nothing to see; RealAudio would be vapourware were there nothing to hear, and the many hundreds of thousands of computer systems purchased in the last year would be useless to their owners were the net not a vast font of information. Bill Gates to the contrary notwithstanding, *most* people don't need or want productivity software.

Fourth, the internet provides an outstanding resource for business. keep in mind, again, that we, as users, *pay* to access it. But now companies such as Microsoft, Sun, Netscape, and a host of others, have a means of sending me mail directly, offering new product information, providing customer support, at savings so large that this amount of information distribution would be *inconceivable* were I not willing to cough up the thousands of bucks necessary to gain access.

You say we should pay for access to them? Hah! *They* should pay *us*!

Let us even look at a site like *Hotwired* (which, btw, I will *not* pay for - and if they charge me for access to Hotwired, I'll stop reading the magazine too!).

Hotwired is the best promotion for *Wired* the company could get. By

fostering interaction and communication between a certain set of net-geeks, *Hotwired* fosters the sense of community so vital to the continued survival of a publication such as *Wired*.

Additionally, the *Howtired* site - potentially, at least, depending on how well their geeks grok code - can return a significant amount of demographic information about a certain segment of their population. Translation: they can charge more for ads in their magazine, because they can point to web stats and say, "Look! 60 percent of our viewers are interested in *this* type of product."

Hotwired also allows new businesses and products to showcase themselves. That's what RGB and Dream Jobs are about. "Look at us!" they call out, enticing us into new frontiers of technology. And we follow because we love that stuff - otherwise we wouldn't be here. What better marketing!

And finally, the existence of *Hotwired* gives people a good reason to buy Microsoft products. Again, I would *never* have purchased Windoze 95 unless I needed to run the new RealMedia client which I needed to listen to HotSeat. Microsoft shouldn't merely invest in *Hotwired*. It should *give* Hotwired money and say "Thanks!"

A previous poster got it right. Why would on-line ventures follow the tired business model of dead tree publishers? We have a new world here, with new economic realities. It's not broadcasting any more. Websites, far from posing a barrier to access, are, in general, begging for hits.

The edge on-line belongs to consumers, not broadcasters, because now *we* can choose whether or not to view the site. It used to be you chose from one of three networks, a couple of radio stations, a couple of papers, and magazines. Not we have millions of options. Why *on earth* do we opt for the one percent that charges us more money?

Finally, the existence of the net shows that good authors, journalists, or commentators are not nearly as rare as previously supposed. And that, indeed, most of them have their positions by virtue of opportunity rather than skill. There is very little - if anything - to choose between *Slate* and a gadzillion free sites. Sure, *Slate* may be very good. But so are the others.

And that's *my* media rant for today, provided for free, and I daresay, of no less quality than Katz's. Hm?

Capturing an Entire Web Site

Our understanding of what can be done with that content must change with

the technology. The very concept of 'copying' takes on new meaning.

Posted to WWWDEV 06 August 98

Jayne K Moore asked *Why would you want to do this? Aren't you copying someone's work here? On Thu, 6 Aug 1998, Duan vd Westhuizen wrote: How can I capture an entire website...?*

Of course the debates on whether it is appropriate to copy online resources continue unabated. Duan, of course, wanted to copy his own site. But what if he wanted to copy someone else's? Why would that be so bad?

Several scenarios present themselves:

1. Perhaps he wanted to copy a frequently used site so that he does not have to download it off the internet every time he accesses it. I do that sometimes which search results. It's really silly to regenerate a search each time I want to follow up a new link. I use one of two techniques: a. I open one browser window to the search results, and by using 'copy link location' and 'paste', use another browser window to follow up the resource b. I save the file to my own hard drive, then point my browser to that page on my hard drive. I have in the past found it useful to download entire sites to my hard drive. For example, the online PERL manual is a very useful site. But why tie up their resources on a daily basis when I can simply download it to disk, bookmark the disk file, and access it at my leisure. Much faster for me, more useful for them. All of these are clear cases of copying. But are they wrong?

2. We run networks in rural communities (Windows NT servers (ugh) running Wingate (double ugh)). These networks routinely cache files which have been downloaded off the internet. This way, when a file is used more than once, the subsequent user's browser reads the cached file from Wingate rather than the original from the internet site. File caching is becoming more large scale. Yesterday, I read an article (I think on ZD Net) reporting that cable internet access providers are caching entire frequently-used sites in order to speed access to their customers. Here we have a clear case, not only of copying, but of software and ISP supported copying. Is this wrong?

3. At our college we have about 800 students, all of whom have internet access, but only a minor internet connection. Anything we could do to reduce traffic is worth our while. One solution I have been contemplating is downloading major regional sites and installing them on our college network, and rerouting requests to those sites to requests for our downloaded versions. Is this wrong?

The assumptions - I think (apologies if I am wrong) - in the question were:

that someone else's site would be copied, and that this was wrong. Yet above we have three cases of what I think are pretty legitimate cases of site copying.

An additional assumption which may have been made (again, apologies if it wasn't) was that the planned action was to download someone else's site and present it on one's own server. Sounds like a straightforward case of plagiarism. But in all of the cases above, the material was copies, and the material was placed on one's own server.

Moreover, consider the following scenarios:

4. I have developed a PERL program I call the 'viewer'. This program integrates with our online courses and accepts, as input, the URL of a 'collection' file, which consists of an ordered list of URLs and titles. When a user activates the viewer, the first page in the list is displayed and navigation tools are generated to let the user page through the remaining page. This is a variation on the 'frames' problem, wherein one provider places another's content in frames on the first provider's site. Is this wrong? It seems so, but...

5. Several sites are now compilations of listings from other sites. The most well known of these, probably, is the Drudge Report (or in Canada, Bourque). There is very little original content on these sites; what the authors do is check out other sites, capture the headlines, and print the headlines with links to the original article. I also receive an email newsletter which does this with technology news. Are these wrong?

6. My sites have been indexed by search engines across the world wide web. In most cases, I did not ask these agents to index my site, and they did not notify me. Yet when I do a search on my name or relevant topics, there is a link to my site. Some search engines even take the first few words off my site by way of description. Is this wrong?

Here we have some cases wherein the content is not copied, but is in some way used to benefit an external agency. Again, the waters are murky here. In some cases, in some jurisdictions, prosecutions of 'in frames' content have been successful. Headline and URL listings, however, appear to be universally acceptable (though one wonders what would happen were someone to clone Yahoo).

Why raise these instances? At the very least, I would like to make it clear that the debate surrounding use and abuse of online content is far from clear. We hear a lot from lawyers who tell us, usually at the behest of publishers, that it's business as usual online, that the ownership of online content will remain concentrated as it did before. Good for publishers and even a few

authors. Bad for the rest of us.

But online publishing involves new technology, and therefore, new ways of presenting information. A web page is in no way equivalent to a magazine or book page. Our understanding of what can be done with that content must change with the technology. The very concept of 'copying' takes on new meaning. It appears to be possible to (a) copy a site without actually making a reproduction of it, and (b) make a reproduction of a site without actually copying it.

And so far I have touched only on content. When we turn our attention to the area of internet programming, a whole new range of questions emerge. Suppose we see some HTML we like. Can we copy it, and substitute the content for our own? The first reaction seems to be 'no' but then some absurd consequences result:

1. Would it mean that the first person to use the list structure (
item</ul) on the internet has copyright over that structure? Probably not.

2. Or: Project Cool claims (probably validly) to be the first to use moving menus scrolling from the right hand side of the page (see http://www.projectcool.com). Do they now own this method? But (as I think may be the case) suppose they built this with a built-in feature of Dreamweaver (which does some very sophisticated Javascript and DHTML scripting). Now - do they own the technique?

The examples multiply. And the web developers - like the publishers - claim ownership over these techniques (well, some of them anyways). But it isn't clear that this ownership can be sustained.

It's too easy and unthinking to launch an 'anti-copying' crusade. We need to consider more deeply the potential of the technology and the nature of the information in question. Probably, there are some clear-cut cases of ownership of and prohibitions regarding online materials. But more often, the fact that someone claims ownership or prohibitions does not mean that they are actually entitled to said ownership or prohibitions.

Dept.'s of Education

Just a short note on the use of CD-ROMs (sometimes the title of these articles has nothing to do with the content).

Posted to WWWDEV 04 September 98

Just a short note on the use of CD-ROMs.

We use an integrated mode of delivery. That is, some of the course material (what we call 'static pages') are placed on CD-ROM, while the rest of the material (what we call 'dynamic pages') are placed on the internet.

The pages link back and forth to each other. What we do is have the user define the static data directory, which may be either online (e.g., http://www.assiniboinec.mb.ca/static_data), CD-ROM (e.g., D:\) or on hard drive (e.g., C:\acc\static_data). Links from dynamic pages to static pages are defined dynamically (from a cookie, using Javascript) according to user defined static page directory.

Static pages are intended to be the stable, non-changing aspects of a course. They are also where we store our images, animations, et cetera. Static page sets are structured in terms of *topic* and not sorted by course, so many courses may use the same set of static pages.

Static pages also link directly to online resources. Static pages are written in HTML, so any URL will be live. Thus, we embed links to our discussion lists, personal communicator, notebook, and online forms directly from static pages.

Dynamic pages are expected to change frequently. We have an online editor which gives the instructor day-to-day control over dynamic pages (though in practise, they set them up at the start of the course and generally leave them). Dynamic pages also include links to communication tools as listed just above.

The reason why we have adopted this strategy is two-fold. First, we wanted to be able to use the same resource in more than one course. And second, we wanted to be able to plug resources obtained from third parties into our courses. We expect this to be an emergent model for online course construction.

P.S.

Oh yeah... while I'm talking about emergent models: please allow me to share with this list my new essay, "The Future of Online Learning" http://www.assiniboinec.mb.ca/user/downes/future

Faculty Need for Computer Competence

The day of the faculty member being solely responsible for content and delivery is rapidly drawing to a close.

Posted to DEOS-L 21 March 1999

Pete Holsberg wrote:

IMO, with tools like Dreamweaver and Image Styler, a faculty member can still publish what he/she desires.

There are three aspects to this:

1. I have worked with Dreamweaver and with image software. In my opinion, a fair amount of learning is required. True, these are tools which allow people to create very bad web pages and images very quickly. But the production of anything more requires a fair bit of dedication and practise - just as in any discipline. So I wonder how many instructors are likely to find the time in their schedules to do this. Perhaps those with lighter course loads could. But college or public school educators would be hard-pressed to find the many hours necessary to plan and design a site of any significance.

2. From the point of view of an administrator, I would have to ask, does it make sense to pay instructional staff to perform HTML and graphic design. Even when instructors are able to master these skills (and they can, after a time), in my experience, they work a lot more slowly than professional designers. Moreover, instructors are often highly paid (in universities, they are very highly paid). Often, graphic designers and HTML programmers may be hired for a significantly lower wage. It does not make sense to pay instructors a high wage for work which could be performed by others for a lower wage.

3. Design and imaging software continues to evolve. Dreamweaver is a relatively new product, and the current version of the imaging software I use was developed in the last year or two. Moreover, for better design (which will be possible with slightly greater bandwidth) using Flash or Shockwave, much more complex editing tools such as Director are required. It is unreasonable to expect instructors to learn the more advanced techniques (such as layering, animation, video editing, splicing, and more) required to produce the sort of product students will expect in the future.

Maggie McVay wrote, "We are rapidly approaching a time, both in site-based education and online education, when division of labour must occur. The day of the faculty member being solely responsible for content and delivery is rapidly drawing to a close." In view of the above three considerations, McVay's predictions approach certainty.

Wireless Web

I have been telling online course designers for some time now that they should stop thinking about designing HTML pages and start thinking about content management.

Posted to UWebED 17 July 2000

Kari Chisholm wrote:

Kevin--
I'll respectfully disagree.
Wireless Web browsing is such a miniscule fraction of Web use that to spend a substantial quantity of resources on it is a waste of time. Frankly, the standards haven't even gotten worked out.... [much clipping]

While I am (very) sympathetic with Kari's comment, the fact is that we are looking at an increasing number of page display devices. Consider the existing range of possible displays:

- HTML (and XHTML)
- IE and Netscape flavours
- RSS, RDF, CDF and other syndication formats
- WML and other wireless standards
- .js for embedding in other documents

and that's just a start. Even within one domain, we can imagine how we would want to be able to provide several views of the same information: For example:

- list of programs in a faculty
- list of programs, with course titles, in a faculty
- list of programs with course titles and descriptions, in a faculty

etc.

I have been telling online course designers for some time now that they should stop thinking about designing HTML pages and start thinking about content management. The same applies for university web sites in general (the same applies to all web sites in general, but I digress).

Conceptually, you need to distinguish between:

- the content, that is, the information to be displayed, and

- the format, or, how the information is displayed

In terms of content, you should proceed as follows:

- define the information to be displayed. Structure it hierarchically (ie, faculty - programs - courses etc) and maybe represent this structure using a DTD or schema
- create a database for this information
- create a mechanism for extracting this information in a structured way (i.e., be able to extract some or all information fields for the faculty)

In terms of display you should be thinking of this:

- detect the application accessing the information
- use this information to select a template (or CSS or XSL)
- retrieve the relevant information
- merge with the appropriate template
- send the information in the proper mime type

This way, when a new standard emerges (or when a standard is updated), you are not rewriting thousands of web pages - you are simply creating a new template (or CSS or XSL) for that type of application.

I've very briefly summarized a complex process - but believe me, as the number of viewing applications multiplies, you will find this structured approach is the only way you can cope.

Copyright and Syndication

Content syndicator Moreover.com is requiring that users sign an agreement granting Moreover sweeping rights... too many rights

August 9, 2000

A few months back I signed up for a Javascript newsfeed from Moreover. The idea was to replace my existing newsfeed from iSyndicate. This would save me the trouble of messing around with frames; iSyndicate's HTML page allows minimal customization, but Moreover's Javascript newsfeed could be inserted neatly into a template page.

Newsfeeds aren't hard to produce. Basically, for a newsfeed provider, it's a three-step process:

1. use a simple web spider to grab headlines from a collection of newspaper websites;
2. organize those headlines into categories; and
3. provide access to those categorized lists of headlines.

The first of these search engines have been doing for years. It is not hard to write software that scans a site and retrieves the URLs.

The second is a bit harder because categorization can be hard. This is why most syndication companies provide only a small list of categories - "Tech news," for example, or "China." But with more and more news agencies producing content in RSS format, it is getting easier for syndicators to assign items to the correct category.

The third area is where the changes are taking place. Once restricted to producing output on HTML pages, syndication companies are now placing their output into specialized files. The idea here is to allow web site owners to *embed* syndicated content into their own sites.

That's what Moreover does with its Javascript feeds. It collects headlines and then saves them to a specially designed Javascript file. This file is updated every day. Webmasters who want to include their newsfeeds need only include the Javascript file - a simple one-line command - into their web page.

Which brings me to the topic of this article. As I mentioned, I signed up for the Moreover newsfeed and tested it on my website for a while. This past Tuesday I received a nice letter from Moreover's account executive:

> All,
>
> I noticed that each of you have signed up for our news feeds using our Webfeed Wizard. I wanted to see how things are going with that, and hopefully get some screen shots to see how it looks on your intranet sites. Also, if you are currently using our news feeds, please complete the attached agreement and fax it back to me at 415.707.2005. If you have any questions, or would like more information, please let me know.

I won't reprint the attached contract, but it is available - in MS Word format - here. The document itself is a mess - full of corrections and type-overs. And signing the document implies agreement that Moreover has exclusive rights to - well - everything.

From the contract:

3.1.1

Content Syndication and Online Learning

Using the content syndication format - RSS (Rich Site Summary) - in an educational environment.

Presented to NAWeb 2000, 16 October, 2000

This paper divides into two parts. In the first part it defines and describes the RSS (Rich Site Summary) format and its emerging use as a format for content syndication by news and media organizations on the world wide web. Through the use of working models and demonstrations, the development, display and distribution of content modules via RSS will be discussed. In the second part, the theories and practice employed by news and media organizations are applied to online learning. Using MuniMall, an online learning community developed by the author, as an example, the method of integrating syndicated content with online courses and learning materials will be described and illustrated.

HTML Version of the paper
MS Word Version of the paper

Comment Integrator

Content and commentary should be located on the same page; here's an easy tool to embed comments in any web page.

Please have a look at the article and supporting Perl scripts by clicking here

Questions for Professional Designers

I have several agendas in this long note. One is to make clear the concept of learning content as delivered through multiple formats. The other is to comment on the discussion of traditional distance learning research as compared to current methodologies. The two topics dovetail nicely into the discussion of the 'costs of producing an online course'. What I want to show is that the very question, by its inherent appear to old theory, no longer makes sense in the current context.

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learning content as delivered through multiple formats. The other is to comment on the discussion of traditional distance learning research as compared to current methodologies. The two topics dovetail nicely into the discussion of the 'costs of producing an online course'. What I want to show is that the very question, by its inherent appear to old theory, no longer makes sense in the current context.

Call it a Kuhn moment.

From: John Hibbs *Quoting* someone else:

PDF? Only if it's designed for students to print out themselves. A PDF document is a lousy reading experience on the computer screen....they're hard to navigate and hard to read.

I have to disagree as I find reading a pdf document quite nice often without all the distortions that come with different versions of Word, different platforms and html tagging changes. I think the small effort to put all Word documents into a PDF is worth the OPTIONs which I think we should provide students.

PDF should not be used for reading on screen, for a variety of reasons. See http://www.useit.com/alertbox/20010610.html

If this is a document to be used on-screen, I would suggest re-editing it.

This part mystifies me. Are you saying in the creation of a document you want studied, you would write it one way for a reader viewing on a screen and another way for a reader collecting and reading in print. Help me out here. This one is a true mystery

Short answer: yes

People's reading habits are different on-screen than in print. Jakob Nielsen (cited above) has a number of articles on this; other literature exists; see http://www.downes. ca/cgi-bin/links/view.cgi?keyword=main&concept=usability

For example: a person reading a printed page will look at the pictures first; a person looking at a computer screen will look at the text first. Also: people can tolerate longer paragraphs on the printed page than they can on the screen. This should be no surprise; people read newspapers differently than they read books or billboards. We don't even know yet what people will tolerate when reading from their cell phone or PDA, but no doubt it will be

different again.

To hark back to a previous argument: items like this explain why a lot of old distance learning theory does not apply in an online environment. But I digress.

Different versions of the material should be created for each viewing environment. The usual way to this is to mark up documents using XML and then to use this base to create a different version of the document for each application. It is worth noting that PDF makes this impossible, since the main purposes of PDF formats are to (a) 'lock in' page formatting, and (b) encrypt and lock content.

One part would include ONLY the parts which need to be read on screen, and would be HTML. The part which had to be printed could be PDF.

Well, I just can't figure out (for myself only, as vs. for all the students) which part would be read on screen and which on a printed piece of paper. That's like saying we have to decide in advance if the reader is in an airplane, at home or in a library and then create the piece depending on the reading situation. Help please?

The analogy isn't bad, actually. Consider, for example, information on aircraft safety. On an airplane, we want it to be short, easy to read, and well-diagrammed, since people may need to read the document very quickly. At home, we are usually willing to add more detail, such as examples and historical information, which places the information in a context. In a library, we are more likely to be doing professional research and so would want detailed studies of egress routes, simulation results, and further background research. Each viewing, both in presentation mode (card, newspaper article, textbook) and in context (emergency, leisure, research) creates a demand for different information.

But WAIT! Rather than make students print 75+ pages of paper - with content which is meant to be printed - why not make it a study guide which the students purchase from your bookstore along with the text? Save them the printing and headaches. 75 pages is a study guide by any name you choose. Call it what it really is, and keep it in the medium it was designed for.

I don't see any problem with that, except if pdf format they might elect to print themselves for convenience reasons; or they might go to Kinkos and get it. Or you might mail to them. Certainly, I would have ALL those options available.

Having students buy a pre-printed study guide is a good idea if they are near

a location where it is sold. Requiring that they wait 6-8 weeks for the material to be mailed detracts from the immediacy of the online environment (studies show people expect a much quicker response time in an online environment) so a downloadable version should be available.

That said, in my opinion, if the content is 75 pages long, then it is probably too long, and won't be useful except in certain contexts.

I will skip point (b), though similar points could be made.

The basic issue again arises - if you want something to work on the web, change its form and content to that which works on the web.

This is the part that truly troubles me Al. You mean all those years I have been constructing my international marketing class I have to change the content? and the "form". To what? How? Can you give me a specific example of how you have done this - tell me about a class that has different "form and content" on the web as vs. on f-2-f. That one I honestly don't understand. Help please.

Let me give you an example: WebReference http://www.web reference.com/

This is an example of an online learning site that doesn't even show on the radar screen of most online learning designers. Yet it is very effective, very popular (50K visitors+ per day) and very well designed. A person could learn all about website design and development using this site alone; no need for formal studies or courses.

The front page is designed for repeat visitors (naturally) - if you are new to the site, your best bet is to look at the site map, located at htt p://www.webreference.com/index2.html There you should notice listings divided by topics. Click on a topic and you'll see listings that vary according to topic. In addition to being a reference library, WebReference contains tutorials, access to experts, discussion, and more. More to the point, you can use WebReference in different ways depending on your need at the time. Some examples:

- as a traditional set of online courses: follow the 'tutorials' links and step through the instructions and examples
- as a reference tool: look up by topic or do a search
- as a form of continuous professional development: subscribe to the appropriate newsletter and read the articles
- as a community: exchange opinions, trade scripts, etc., in their discussion area

Now the point is: no face-to-face class could ever be structured this way. Because face-to-face is inherently linear and structured, it could include the tutorials and nothing more. But by structuring the tutorial contents so that they draw from - and indeed are a part of - the reference tool (and the newsletter, and the community), a variety of study modes is available. In my opinion, this makes WebReference a much more useful online learning site than a traditional class 'converted' to web format.

It's less obvious, but WebReference is structured to allow for different modes of delivery as well. There is a web WebReference, an email WebReference, an RSS WebReference, and more. All the information is drawn from the same database, but formatted differently according to output device.

Now back to my digression: I could be wrong, but it seems to me there is nothing about this in traditional distance learning research or literature. So far as I can tell, the vast bulk of this research literature is devoted to the topic of conducting *classes* over alternative media. Yes, the literature talks about the need for different content and content formats for different modes of delivery (telephone, ITV, discussion list). But it doesn't really talk about using the same body of information in different contexts. Certainly, I have seen no discussion in the literature which merges these two things: multiple modes and multiple contexts. I could be wrong, of course (it's really hard to keep up with the literature when the authors don't post it online), and would welcome any correction on this point.

I might add, too, that WebReference - typical of such online learning sites - is dynamic. Old material is continuously being updated, so that if you took the RSS tutorial (as I did) last year, you can be notified of updates, changes to examples, new versions of RSS, etc. The learning doesn't stop with the tutorial; the tutorial is just a tool to get you up to speed quickly. See http://business-times .asia1.com.sg/supplement/story/0,2276,3341,00.html for more discussion on this.

If you have lots of print documents which are designed to be used in print, and you're not going to re-design and re-think them, than make them part of a study guide the student buys from the bookstore.

Could you buy a dynamic, multi-mode searchable reference library from the bookstore? I thought not.

Well, I agree that putting all your stuff in an ORGANIZED manner causes you to think carefully about re-design and re-think...but surely that is what good professors do all the time anyway. Yes, I agree that once you have gone through this major headache of ORGANIZATION, you will have re-

designed and re-thought the course? But the monetary cost for doing same should NOT be charged to "distance education". It is a "cost" that should be underwritten every year. Aren't all (good) classes each year re-thought? re-designed?

You see, there are multiple levels of organization in any field of study. Let me identify two, to make the point intuitive and obvious (I imagine some research 'discovered' this, but I'll dispense with a reference anyways):

1. Organization by level of difficulty
2. Organization by sub-topic

Thus, for example, you could have Beginner-HTML, Intermediate-HTML, Expert-HTML, Beginner-Perl, etc. Each of these subtopics breaks down into additional topics. Mastery of a given topic, at a given level, is defined by a set of outcomes (or learning objectives); and thus we have another layer of organization.

Now in my view, learning design involves at *minimum* the creation of a multi-dimensional matrix incorporating each of these divisions (I know this is researched somewhere; it is the model that NAIT, for example, is using in the design of its e-business program. I was fortunate enough to review and make comments on their course structure and organization at this level).

After this process, you should end up with a whole bunch of little boxes, each with a topic, level of expertise, and set of learning objectives (I'm glossing a bit here, but only to leave the point clear). To each box, learning material, examples, diagrams (and whatever) are added. Not all the material that is added will be used in all cases; HTML for lawyers, for example, may differ from HTML for engineers.

At *this* point, course design - if you want a course - begins. An appropriate selection of boxes (preferably on the same topic and at the same level (but not necessarily - it could be a survey course)) is linked together. Perhaps some unifying elements are added - overall course objectives, a term project, etc. (Which should actually be elements in the smaller boxes, identified as a theme (or in web parlance, a 'tour', but I digress).

But why, having gone to all this trouble, would you then create a course that can only be used one way, in one mode of delivery, in one context? That's absurd! Better to leave your learning content as (unformatted) elements in a database, and then create courses, reference libraries, etc., as (glossing again) database enquiries, adding or excluding formatting and content as the situation warrants.

In an ideal world (which, sadly, we do not inhabit), each box is maintained by an expert who continually edits, modifies, and otherwise improves the content. These experts may live in different parts of the world and work for institutions. In some cases teams of experts will work on a box. One expert may work on several boxes. The list of topics, their organization, and the maintenance of other elements would be the ongoing task of standards bodies, professional organizations, researchers and other experts. Nothing is static: there is a continuous flow of changes. This becomes the common core of materials used by academic institutions and corporations around the world, studied by individuals on their own or with the guidance and tutelage of learning facilitators (who also add local content, additional examples, etc).

The designer would accept that the bulk of the text materials would be uploaded to a bulletin board, of a kind we use at Franklin - free http://www.bfranklin.edu/gld5/board.htm. - (which allow threaded discussions and easy text uploads.)

Why? Print them and sell them to the student. SMALL volumes of text are indeed appropriate for that which John suggests...but not near-books.

Are your "fighting" the idea of threaded discussions on a bulletin board? If the text materials go on the board, doesn't this allow easy snipping, cut and paste, circulating ideas, arguments, discovery? Once you print them you are back to a one-to-many concept - far, far, far different than what Guy Bensusuan is so proud of. (I think Guy argues that once you post a topic, it gets "torn up", dissected, tossed around...the "re-design" "rethink" comes from the hashing of the document)...(not unlike what I am doing with this response to Al Powell?)

I think people should stop thinking of learning materials as 'documents' that can be "uploaded" or "printed" as a whole. This type of thinking treats learning more like books and less like a database. Think database. Think of uploading as uploading database elements. Think of printing as a structured database enquiry in a certain output format.

Move beyond paper. Even if you use paper, move beyond paper in your thinking. Move beyond linear. Even if you use linear, move beyond linear in your thinking.

a) - how many hours will it take to accomplish the uploading and a reasonably navigatable site?

See, it's not even a reasonable question any more.

This is the thing with paradigm shifts. Old questions no longer make sense, because they incorporate the percents of the old paradigm. Just as old theories cannot be (as Mauri suggested) "reformulated" because the old theories contain built-in presuppositions. By analogy: we did not "reformulate" the theory of phlogiston; we discarded it. We cannot answer "How much phlogiston does a fire emit" because the question simply does not make sense.

From my point of view, a lot of the discussion on DEOS does not make sense because it is firmly rooted in old theories of learning design which in today's environment must be discarded (as people, as promised, introduce and describe these theories I may try to show how the current environment invalidates them).

Gawd. HERE is the reason that this group should push to involve the f-2-f instructors...Following the "let's just print last year's study guide is a whole lot easier than taking a threaded discussion on each and every portion of the study guide and posting a summary of THAT outcome. Is the "significant difference" that the majority of f-2-f teachers are lazy and the majority of distance education teachers are hard working?

Well - it is different, to be sure, but the explanation is not found in the fact that teachers are "lazy." I think that an annual review and improvement of each part of each course - online or offline, traditional or non-traditional - is a task no institution could afford. And moreover, it makes no sense to have a thousand *separate* reformulating and improvement exercises, each involving one professor, being conducted when we could have *one* being conducted by a thousand professors (or more likely, three or four each conducted by 250 professors).

Any media product has three characteristics: Good, Fast, and Cheap. You can pick any TWO of these for your project.

The truism is probably true. The way to escape the truism is to stop thinking of online learning as 'media products'.

I think that is very true for a "media" product. Those great Budweiser ads do not come cheap. But we are not in the "media" business. We are in the CONTENT and DELIVERY business. Maybe we should be thinking less bells and whistles (media) and more text, more writing, more interactive communication, more exploration, more original thought and a whole lot less printed study guide, good year in and year out. ????

Bells, whistles, text, writing: these are all forms of media. These are output formats. Nothing more. It's important to think beyond the media. Beyond

bells. Beyond whistles. Beyond text.

Making Micropayments Micro Enough

Content creators are pushing for micropayments - but there is no micropayment that can compete with free content.

July 12, 2001

I am sympathetic with Scott McCloud and think his article (cartoon?) is one of the most persuasive arguments in favour of micropayments to come around for some time. But I don't agree with it. And I think that content producers (writers, artists, musicians, educators) who support micropayments, or similar revenue generation schemes, are backing the wrong horse.

Giles Turnbull suggests that, with micropayments, "Creative people would be able to claim a greater share of the money and earn more in the long term. Consumers would get stuff much cheaper. Everyone would be happy." I don't agree. Turnbull forgets that the current cost of online materials is zero. As in free. A "greater share" of that is meaningless. And no consumer will pay less for content unless they were actually paid to read online.

Turnbull assumes that there is some sort of pot of money available that consumers are willing to pay for content. Is this pot of money akin to the money a person pays each time he hears a song on the radio? The payment he makes each time he watches a M*A*S*H rerun? Is this the money he pays to the publisher each time he re-reads a news clipping? Or each time he listens to his favourite Elvis song on his now well worn LP?

From the consumer point of view, content is free: it has been for several generations now and will continue to be free in the future. Sure, the consumer will pay money for access to that content: he will pay for a cable connection, or a wax disk, or a radio receiver. But once access has been paid for, the content comes, uninterrupted, usable once or as often as he wants, all for the same access costs.

In some underlying sense, Turnbull knows this. As he recognizes, "The recording industry started out as a plastic manufacturer. It made plastic disks and recorded sounds on them, and sold them at a profit. What it became good at was making disks in large numbers, and distributing them worldwide." But he needs to take that leap: the record company sold wax disks; it offered free sounds on them as an inducement for people to buy these disks (and the machines to play them with, sometimes also sold by the

same companies).

True, the recording industry is now trying to change the rules of the game. It is now trying to say that what it sold all along was the music on the disk. But nobody believes that, not when that very same music could be heard for free over the airwaves. Micropayments offer, as Turnbull says, a "sensible solution." But only if you're the record company. For the consumer, it makes no sense at all.

It is very easy to mislead oneself in this debate. Consider Napster. Napster was a success not simply because it made getting hold of the music easy; it was already easy (except for those few poor souls living nowhere near a radio station, MTV or a music store). Napster was a success because it made music available for free. The way consumers are used to obtaining music. McCloud points out that the people who used Napster did not intend to be pirates. Of course not! They were doing what they've been doing all along: it is the music industry, not the Napster users, that is changing the rules.

Turnbull cites Clay Shirk as saying that micropayments won't work because they force the buyer to stop and think before clicking and downloading. He is right in saying that micropayments are a disincentive. As Turnbull says, people do not stop and think before making a phone call or sending an instant message. That is because, once you have a telephone, local calls (local content) is free. People do stop and think before calling long distance. Otherwise, companies that sell cheaper long distance could never gain an edge in the marketplace.

The different between micropayments and access fees, such as we currently pay for the telephone or cable, is the different between metered use and flat rate. Metered payments are used for some commodities, such as water and power. It works because the suppliers are essentially monopolies; you don't need to track what sort of water you used, and who should be paid for it. And these commodities are metered because they are relatively scarce: we want people to stop and think before leaving the lights on or the faucet running.

But content is not in limited supply. Once a song is recorded, it can be duplicated and transmitted an infinite number of times without affecting the supply of that song. There is no need to limit access to songs, no need, that is, except to create an artificial shortage of the song, which is the only justification recording companies can charge for the use of that song in the first pace.

Indeed, the method of payment we use for the creation of content is odd and artificial. If I build someone a house, I do not charge them a fee every time

they use the living room. If I sell them a hamburger, I do not continue to collect royalties on a per-burp basis. If I make a bed, I do not collect a fee every time it is slept in. It's actually quite unusual to have to continue to pay for a product time and again each time it is used. Only in an environment where artificial scarcity is created could such a system flourish.

Turnbull thinks that the key lies in making the payments small enough. In this I agree: but my definition of small enough is "free." If I have to pay even two cents to listen to a song on my computer, I'll just bring in my radio and listen to an endless stream of songs for free. There is no price that is competitive with free. None.

OK, enough beating around the bush. The real purpose of Turnbull's article - and McCloud's, for that matter, is not to ensure that the music publishers stay in business. Nobody cares about that. The real purpose of the article is to devise some mechanism whereby content creators get paid for their work. Right?

So let's use a little logic here: if the creator must be paid (and he must), and if they consumer won't pay (and he won't), then somebody else must pay. Otherwise, as the doomsayers say, there would be no content, and clearly, there should be content.

Well - imagine a world in which the world wide web had no content. Who would use it? Nobody! The content is what makes people use the web. Create better content and more people will use the web for longer periods of time. Create even better content and they will go out of their way to use it, or even spend money on wireless access to they can use it wherever they are.

Now, who suffers if nobody uses the web? Not the consumer, so much: he or she merely goes back to other forms of free content, and especially radio and television. No, the people who really suffer are the people who sell access to the internet. These break down into three major groups: bandwidth providers, such as ISPs; software vendors, such as Microsoft; and hardware providers, such as Dell or Compaq. If people stop using the internet, these companies suffer. Big time.

It is worth money - a lot of money - for these companies to keep people using the internet. To date these companies have gotten a free ride: people want to use the internet because of the content, and so many people have provided free content! But if there is a content gap - if the amount and quality of content on the web declines to the point where web usage is affected, then these companies must step in and fill the gap. They must produce content to keep the users coming back.

I think that the music recording industry - and content creators in general - would have a much better chance of survival if they were to market directly to ISPs, software vendors, and hardware vendors. If they were to tell them, as an industry, that if they provided a certain percentage of the revenues of the sale of internet access to support content, they would make this content free of charge to the consumer.

I think as well that they could market their content directly to commercial websites. Nobody today visits the IBM website, the AOL website, or even the CBS website, simply because they want corporate information (well, very few, anyways). People are drawn to these sites because they offer content. If IBM wants people to view their new machines, they should start offering U2 streams from the IBM website. Another sale for the content industry: and it didn't cost consumers a cent.

A lot of educational content can and will be paid for in the same way. Why should people pay in order to learn how to use Microsoft Word? They've already paid for the software: it only makes sense for Microsoft to pay for the creation of quality educational materials and to offer them for free over the internet. And because they want people to be able to find this material where and when they need it, they should encourage sites all over the web to run MS-Word tips, or similar educational content.

National governments, who have an interest in educating their citizens, should pay for and distribute content for free. This is the easiest and most efficient means of ensuring that quality educational materials are available to all citizens. Where possible, national governments should pool their resources and produce global learning materials, available to all. It would even be reasonable to add a tax or surcharge on internet access providers in order to procure this content, much as cable companies are required to provide educational television today.

Now it's true: it all gets charged back to the consumer in the end. Individuals pay taxes, they pay for content through access fees or software costs. Just as they, in the end, pay for radio, television or telephone use.

But it's a lot cheaper to buy in bulk. It's a lot cheaper to have single billing for content. The cost of tracking and accounting for micropayments would by itself be more than the cost of acquiring and producing content. Indeed, consumers would be paying mostly for the billing system! The very product they don't want! The billing system would replace wax or plastic as the *real* product sold by record companies.

Even then, merely creating a billing system will not be sufficient. The competition must be crushed! There is no *real* shortage of content, not

even a shortage of high quality and specialized content. For every news agency that charges five cents an article, there will be a news agency that distributes that article for free. For every musician that charges two cents per song, there will be a musician that will offer some music for free. For every high priced online learning material offered online, an equally high quality free alternative will be offered instead. Haven't people learned anything from the success of things like the apache web Server and the Netscape browser?

This will happen because people have many motives for creating content: money is only one motive, and not even the most compelling motive. people create content because they have a message they want to convey (as is the case within this note). People create content because it serves the public good. People create content because it provides an introduction to services they want to sell (MIT's free course content online, for example, is best viewed as advertising for the personal services of its well known professors). People create content because it's fun, they get fame and recognition, nice emails, the acclaim of friends and acquaintances. The content-for-hire people face this overwhelming weight of competition, and if they depend for their livelihood on the sale of content, then they will have to stifle this flow of information. This may be possible (that's debatable) but it won't be cheap and it will create a lot of ill will.

Professional content creators are not merely competing against web sites. They are competing against email, instant messaging, bulletin boards, list servers, and any number of ways people exchange free content with each other, directly, without intermediary. And the argument that only professional (paid for) content is of high quality won't wash. An email from my mother is worth more than any article published in the New York Times, and complaining about the 'quality' of her message won't change that. You have to produce a lot of quality to offset free, and I don't think that content creators have it in them to be that good.

I don't think that content creators can compete against free. That means they must become free. And the only way to do that is to get a third party to pay for it. The internet access industry. Corporations. Governments. That's the only hope for professional content on the web.

Obviously in this note I haven't covered every aspect of content creation and distribution. But I would hope that my main point is made: there are alternatives to charging users by the slice, and that these alternatives have some attractive features. Including one, essential, attribute: they would be accepted by consumers in a way that micropayments would never be accepted.

Resources and References

MGen
mGen is an IMS which focuses on multimedia-rich course content
http://www.mgen.com/

FlexTraining
FlexTraining is an IMS that lets you build, deploy, manage, and monitor on-line training. It lets students enrol, sign on, and conduct all class activities over the web. It provides control over course content, course guides, class schedules, enrolment policies, testing policies, test content, and progress monitoring.
http://www.flextraining.com/

Useit.com: Jakob Nielsen's Website
Five years' archive of Jakob's bi-weekly column on Web usability, including Metcalfe's Law, web research, content integration, top ten mistakes of Web design, web project management, and how people read on the Web
http://www.useit.com/

At the Table
How to create a JavaScript SortableTable object that allows users to sort the contents of a table by clicking on a column heading. By Jamie Jaworski, August 8 1999, CNet.
http://www.builder.com/Programming/Scripter/080999/?tag=st.bl.3880cd3.promo3.bl?pt.isyndicate.bl.hl

Your Wireless Future
Series of articles in Business 2.0 detailing the approach of the wireless revolution. Comprehensive coverage. A series of twelve articles edited by Michael Mattis. August, 1999.
http://www.business2.com/articles/1999/08/content/cover-story.html

ILInc - LearnLinc
Learnlinc is a synchronous communications tool which enables instructors to conduct real-time classes by simultaneously connecting to students via the PC, to communicate with students using audio or video conferencing, to synchronize multimedia content, web-based content, and software applications, and to recognize class participation, and "give the floor" to a student.
http://www.ilinc.com/

ISyndicate
Syndicated content for web sites. License and host content or add headlines and photos to your site for free.
http://www.isyndicate.com/

Affina Lanunches Service That Enables Millions of Small Websites To Create Their Own Customized Shopping Portals
Affinia, the provider of customized shopping or retailing portals for small websites, launched today a service to bring the online shopping revolution to millions of targeted content sites, personal home pages and online communities. Business Wire, ZD net, 16 August 1999.
http://www.zdii.com/industry_list.asp?mode=news&doc_id=BW19990816BW1099&pic=Y&ticker

Open Content Syndication Directory Format Version 0.4
he Open Content Directory Format is intended to provide a concise, machine readable-listing of a set of syndicated channels. The directory format is capable of supporting multiple sites, each with multiple channels. Each channel can have muliplet formats such as RSS (RDF Site Summary), Plain Text, or Scripting News format as well as separate publishing schedules or languages. Internet Alchemy.
http://alchemy.openjava.org/ocs/directory.shtml

Internet Advertising Focussed on ECommerce, Not Brands
Advertising on the Internet is narrowly focused on ecommerce, not on building strong offline brands according to a study released by The Strategis Group. By Michael Pastore, Ad Resource, August, 1999.
http://www.adresource.com/html/new/content/stratads.html

Say you want a traffic jam?
Pretty good overview of the essentials of site design, along with a few suggestions for improving stickiness. Worth a read. by Denise Cox, All Real Good Internet, 1999. Originally appeared in the September 1998 edition of dot.ie internet magazine
http://www.allrealgood.com/content_development/consulting/site_content.shtml

The Sevloid Guide to Web Design
Tips, tricks and techniques on every aspect of web design. The tips are sorted into the categories of page layout, navigation, content, graphics and more.
http://www.sev.com.au/webzone/design.htm

IPIN
This new system greatly extends the reach of ecommerce. Instead of requiring credit card transactions, it allows the site to send a bill to your ISP, which in turn adds it to your internet access bill. This allows providers to charge micropayments for content subscriptions and other low value items.
http://www.ipin.com/

Portals RIP?
Good analysis of why portals are on the wane: For e-commerce purveyors, the waning influence of the portal is a warning: The content had better be reliable and as independent as possible. By James Ledbetter, Industry Standard, September, 1990.
http://www.thestandard.com/articles/display/0,1449,6433,00.html?05

Frontier
With Frontier 6 for Windows and Mac you can build and publish big-content news-oriented sites that are easy to manage, for you, for your writers and designers, flowing stories over the Internet in traditional and new ways.
http://frontier.userland.com/

Multimedia Delivery Using Satellites
In the "Communication and Navigation Services" parallel session of the TAP Conference in Barcelona, Penny Glover from the European Satellite Agency, working on the SATEMA Project, presented an overview of the possibilities and advantages of multimedia content delivery using satellites. March 27, 1998.
http://www2.echo.lu/telematics/education/en/news/new272d.html

Web Content Architecture: Taming the Tangle of Protocols
Good survey article detailing (with useful illustrations) the evolving set of internet protocols. By Tad Lane, BITS: Computing and Communications News, September 1999
http://www.lanl.gov/projects/ia/library/bits/bits9909.html

HotOffice Technologies: E-Newsletter Opportunities
A fast-growing number of organizations produce e-mail newsletters as a means of communicating and staying in regular contact with customers, and enticing new business. By Steve Outing, Content Exchange Newsletter, September 27, 1999
http://www.content-exchange.com/cx/html/newsletter/1-12/vs1-12.5.htm

Ten Direct Response Writing Tips for Online Content
Good tips that apply to any kind of Web writing, whether to sell, persuade or inform. By Naomi Bloom, Content Exchange Newsletter, September 7, 1999
http://www.content-exchange.com/cx/html/newsletter/1-11/tb1-11.htm

Content Exchange
Content Exchange acts as a broker between online writers and editors, and online publishers. Writers submit descriptions for free, while publishers pay a subscription fee to browse the database.

http://www.content-exchange.com/

High Wired
Subtitled: On the Design, Use, and Theory of Educational MOOs. Book with a variety of essays on the subject - table of contents only online (won't people learn?). Cynthia Haynes and Jan Rune Holmevik, Editors.
http://www.press.umich.edu/titles/09665.html

Britannica Gives In and Gets Online
Encyclopaedia Britannica is posting the entire contents of its 32-volume set on the Internet for free. By Jonathon Gaw, L.A. Times, October 19, 1999.
http://www.latimes.com/business/19991019/t000094383.html

Partners offer online alternative to school
Article describing Child U, an online K-12 school. The quotes tell the story: "Teachers ultimately will be better off when they let computers teach." and "It takes a business mind to make a business out of an educational product." hoo-boy. By Jack Rejtman, Miami Heral, October 21, 1999.
http://www.herald.com/content/today/business/docs/015639.htm

Web Based Instruction Resources
Good list of all the tools you might need if you are developing online learning resources or courseware. Covers course development tools, collaboration tools, examples, course content resources, course design resources, and studies, reviews and compilations. By Sharon Gray.
http://www.briar-cliff.edu/sharongray/WBI.htm

WAP and WML: Delivering Wireless Content
WAP stands for Wireless Application Protocol, and WML stands for Wireless Markup Language. These two protocols define web content for wireless applications. By David Sims, Web Review, Oct. 22, 1999
http://webreview.com/pub/1999/10/22/field/index.html?wwwrrr_19991022.txt

Distance-Education Backers Gaze Into the Future, and See Customization
Speakers at a conference on the role of universities say content and customization will be central to the future of the industry. By Sarah Carr, Chronicle of Higher Education, October 26, 1999.
http://chronicle.com/free/99/10/99102602t.htm

Screaming Media
Aggregates and distributes internet content. Screaming Media is primarily a syndication service, like iSyndicate.
http://www.screamingmedia.net/

The Digital Object Identifier System
The Digital Object Identifier (DOI) is an identification system for intellectual property in the digital environment. Developed by the International DOI Foundation on behalf of the publishing industry, its goals are to provide a framework for managing intellectual content, link customers with publishers, facilitate electronic commerce, and enable automated copyright management.
http://www.doi.org/

Word on the Web
Good index of content management software for online knowledge distribution, publications and the like.
http://www.thestandard.com/article/display/0,1151,7880,00.html

Web Spotlight: Surfers Warm Up to Personalized Content
Stats and analysis in support of the idea that web surfers want personalized content. My take - there is a lesson there for online learning! By David Lake, Industry Standard, January 3, 2000.
http://www.thestandard.com/metrics/display/0,2149,1097,00.html

Advice for Journalists To Prosper In the 2000s
Good overview article on the future of online news and journalism. Especially good advice about writing for vertical portals. By Steve Outing, Content Spotlight, January 3, 2000.
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Canada's News Websites Recycle Hard Copy
No surprise here but it's disappointing all the same. Most Canadian newsrooms are simply shifting content to their online sites rather than embracing the Internet as a unique multimedia tool to improve news coverage. By Martin Stone, Newsbytes, January 13, 2000.
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Virtual Communities, Inc.
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http://www.vcix.com/

The Net, At Your Service
Forrester Research is predicting a $220 billion online customer service

market by 2003. That seems about right. By Walid Mougayar, Business 2.0, January, 2000.
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Developments in online news using RDF, XML and other content-based technologies. By Michael Claßen, WebReference, February 3, 2000.
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Experiences with Real-time Streaming Audio/video in Delivering Web-based Courses
Over three years of experience with the application of real-time streaming audio and video (RealAudio/Video) to Web-based courses has yielded a wealth of experience in synchronous delivery of live instructional content and asynchronous delivery of archived content
http://www.engr.iupui.edu/~ho/papers/WebNet99/webnet99fig.doc

Core Competencies in Content Management
Patricia Seybold discusses the key skills companies need to learn to engage in enterprise wide content and knowledge management. A good short read.
Patricia Seybold Group's Customers.com Service - November 19, 1999
http://www.psgroup.com/doc/products/1999/11/PSGP11-19-99CC/PSGP11-19-99CC.asp

ENow
This is way cool. A program which scans the contents of hundreds - thousands - of synchronous chats and locates chats touching on topics you may be interested in as they occur!
http://www.enow.com/main/index.html

Web Publishers: E-mail Is Your Best Friend
Good article on the benefits - and some of the pitfalls - of using an opt-in mailing list as part of your online enterprise. By Amy Gahran, Content Spotlight, February 28, 2000.
http://www.content-exchange.com/cx/html/newsletter/1-23/vt1-23.htm

Blogger
Elegant website which lets you add content dynamically to your web site. Most useful for creating personal weblogs (which I have done - watch my home page).
http://www.blogger.com

Eyetrack Online News Study May Surprise You

Web site users tend to look first at and look most intently at text, glossing over photos and images in search of meaningful textual information and content. By Steve Outing, Editor and Publisher Online, Wednesday, May 3, 2000. http://www.editorandpublisher.com/ephome/news/newshtm/stop/st050300.htm

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Interactive technologies are grouped into four segments: (1) Content becoming granular and intelligent, (2) Object repositories supporting a content infrastructure, (3) Network Centric Frameworks for access and (4) Mobile and Handheld Learning Environments. Tom Hill, December 9, 1998, Institute for Defense Analyses, Alexandria, VA
http://www.learningnetwork.com/Dimensions2008/Dimensions2008c.htm

Web-Based E-Learning Demo
CUseeMe and OneNet, Oklahoma's telecommunications and information network for education and government, today announced the a web-based e-learning demonstration with live, interactive video and integrated content.
http://www.individual.com/frames/story.shtml?story=b0602111.701

10 A.M.
Content aggregator and syndication site, lists RDF and RSS data feeds, provides instructions on how to build your own feeds.
http://10.am/

ITtoolbox Knowledge Management
Content, community, and service for Knowledge Management professionals. The site provides technical discussion, job postings, an integrated directory, news, and much more.
http://knowledgemanagement.ittoolbox.com/

iCopyright
Automated copyright clearance service for online content providers and newspapers.
http://www.icopyright.com/

Accreditation: Who Needs It?
Accreditation used to be a word uttered only in hallowed halls. But as e-learning proliferates and more colleges partner with commercial enterprises to deliver workplace learning at the speed of click, the content quality clouds appear. By Donna Abernathy, Learning Circuits, January 4, 2001.
http://www.learningcircuits.org/2001/jan2001/@work.html

schoolyard subversion
As Aaron Swartz writes, "In America, we have a mandatory public school system that destroys children's minds and molds them into slaves of the establishment. Many experts agree. I finally realized this and decided to do something about it. Welcome to schoolyard subversion, the true story of my fight to change my school." All of which may just so much high school belly-aching, except that Swartz is a leading software development expert leading the way in efforts to standardize content syndication technologies. The site is a blog - web log - documenting alternative approaches to education. The software powering the site was, of course, written by Swartz himself.
http://swartzfam.com/aaron/school/

MeansBusiness Gives E-Learning a New Twist
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Chapter 6 ~ Research

The Role of the Traditional Research University

The forces which are driving students from traditional institutions and into distance learning are not related to the role traditional universities play, but in the manner in which they play that role.

Posted to the Node 03 February 1999

Just released on "The Technology Source" is a new paper, The Role of the Traditional Research University in the Face of the Distance Education Onslaught by José-Marie Griffiths and Gary M. Gatien (http://horizon.unc.edu/TS/vision/1999-02.asp).

Griffiths and Gatien argue that

> While virtual and corporate universities that emphasize distance learning may represent the wave of the future for many, they do not directly compete with or threaten the research university.

The authors report on trends which have helped "instil panic" in traditional institutions, such as the rise of distance learning, changing learner demographics, and increasing access to technology. They respond by pointing to ways traditional universities can use new technology:

> the focus is not on creating and packaging distance learning courses for sale; rather, it is on using information technology to address many issues of educational delivery, including those related to the constraints of time and place. Within this broader context, information technology can enhance some of our traditional strengths, including our role in fostering knowledge communities: groups of individuals who share common or complementary interests and who join together to pursue common or complementary goals aimed at the creation, enhancement, or sharing of information (Griffiths, 1998a).

This essay is useful because it provides, through its references, some concrete data reflecting the shifting demographics. Additionally, it describes a number of interesting and innovative research projects using the new technology. It also hints at a collapsing of the distinction between traditional and online learning, a trend described in my paper as a "convergence" of those two modes of learning.

However, as a defence of the role of traditional research universities, the paper fails. It caricatures distance learning, presents an idealized (and unrealistic) picture of research universities, and hence, demonstrates a failure to understand why a significant shift in the role of universities will occur.

Distance learning, even today, has progressed far beyond the era of "creating and packaging distance learning courses for sale". Using new technology, distance learning providers now provide flexible (and often customized) course materials, instructor support, community and interaction. Distance learning is coming into its own as a means of "fostering knowledge communities".

Moreover, traditional universities do not resemble the idealized picture

drawn by the authors. Their vision of a research university is one of "student 'apprentices' working with, developing relationships with, and being mentored by nationally and internationally recognized experts."

Were it only so. True, at the graduate studies level, and in some cases even in fourth year, some universities begin to approach this ideal. But traditional universities are just as often places where massive first year intro classes are taught by harried grad students with neither time nor expertise to foster knowledge communities.

Traditional universities of the future will be much smaller - and much fewer - if all that remains of them are the small expert-led research communities. This is not necessarily a bad thing; such would be institutions of value. But the authors should not be misled by their own misperceptions into believing that things will remain much the same.

The forces which are driving students from traditional institutions and into distance learning are not related to the role traditional universities play, but in the manner in which they play that role. Students faced with rising costs, restrictive residency requirements, and indifferent instruction find distance learning an attractive alternative. Unless traditional universities rethink how they teach, their future is very dim.

Research on the Web

Maggie Mcvay wrote, to a chorus of approval, "I hope you are not relying ONLY on the web for your research." I am led straight to the question: "Why not?"

Posted to DEOS-L 19 July 1999

Maggie Mcvay wrote, to a chorus of approval, "I hope you are not relying ONLY on the web for your research." I am led straight to the question: "Why not?"

Let me clear about my biases. I don't like libraries. Never have. The stale air gives me a headache. The omnipresent dust gives me a headache. Searching via card or even online catalogue is a lottery at best.

Yes, I have spent many an hour in the library - who among us hasn't? Hours at the photocopying machine reproducing a page here, a chapter there.

Seated on a dingy floor for hours reading every item on the BC.181 shelf. Or searching for that missing issue of the Australasian Journal of Philosophy (checked out by Professor C.B. Martin some time in 1982).

Some part of that time I even spent reading relevant material, but most of the time I spent performing the mechanical tasks related to working with large, heavy, unindexed physical objects. So I say again, why not use the web?

Maggie McVay gives us our first and most obvious answer: "the majority of research articles are still published in journals and books that are not available to the web." Too true, and so sadly today's graduate students must still climb the literal ladders of academe searching for arcane journal articles and texts. But must it always be this way?

It seems odd in today's wired world, but the publishing industry continues unabated, almost oblivious to the idea of a non-paper alternative. Respected academics continue to place their best work, not on their home page, but in the pages of a limited run publication. It was even seen as a move forward when recently the studies listed in the "No Significant Difference Phenomenon" were removed from the web and placed in an inaccessible print-based format.

Even in the field of online learning, I find it startling to record that many works in the field are published in print, and in print only. I'm not sure how to take this - how seriously should I treat an 'authority' in the field who does not have a web page or even an email address?

There is a bias in academe toward the printed word. Maggie McVay captures it nicely: "It is still the case in many universities that publishing to the web is not an acceptable 'publication' for faculty development/tenure, so you will miss a great deal of important work by relying on the web."

But this is very much a chicken-and-egg problem. No person who wishes advancement in academic life will publish on the web, so therefore the important work is not published on the web, thus perpetuating the cycle. But is there any reason why a web-based publication is any less valuable than a paper-based publication?

I would argue that there is not. True, there is much on the web which has not been blessed with the seal of authority (which may not be a bad thing), but for those seeking a referee- sanctioned publication many respectable online journals are now available.

The scholar who publishes solely for prestige, solely for a limited readership, scholarly review, and eventual career advancement, may

consider print-based journals and books an acceptable mode of publication. But scholars whose interest is in the first instance a wide-spread (and even non-academic) readership, who is concerned more with the distribution and discussion of ideas, will find the print-based world a poor second cousin to on-line publications.

Now let me be clear - this is not to disparage books at all! This is not to say that books should be completely replaced with web-based publications. There is no reason we should not reproduce important or worthy materials in book-based form.

No, what I am arguing is that we should not publish in *only* print-based form. I am arguing that it should be possible to find, on the web, everything which is also produced in print. And that there is no reason why this should not be so! Except for academic prejudice and the economics of scarcity.

Now Don Hart asks the question, "I am concerned that if students in Education programs get into this behaviour, then later when they are teaching they will allow (encourage?) their students to go FIRST to the WWW for research projects."

It seems odd that Don Hart would find this a concern. What reasoning would prohibit students - especially elementary or high school students - from first searching the web in their area of enquiry? Even today, in the infancy of the web, more and better materials are available online than exist in most school libraries.

Want to study the United Nations? All relevant documentation is online, including the most recent and up-to-date UNESCO reports. Interested in Austria? The Austrian government has a comprehensive library of information. Media studies? One need only look at Canada's Schoolnet for vast resources in its online Media Awareness Network.

What school library could compete with these? Indeed, even, what university library is ready with the breadth of current and relevant information? And even considering those libraries which are able to keep pace, what is the cost of a large institutional library when compared with simple internet access?

Maggie McVay, in well-intentioned advice, counsels students to "develop your own library of distance learning resources of books." Perhaps she hasn't been to the bookstore lately, but modern texts are running between $40 and $80 per copy. In my field - philosophy - my modest library of essentials cost several thousand dollars (and this includes a thorough scour of the used book stores).

Is it good advice - really - to advise students to incur additional expenses when by a fair-minded and reasonable policy we could make these resources available to all students at a fraction of the cost?

Now in fairness and good sympathy, the question of online resources was raised in the context of graduate students' use of mailing lists as a research tool. And yes, I too have seen more than my share of graduate student enquiries take the quick route from my in-box to my trash folder.

But as Dennis Roberts comments, "life has changed drastically with the advent of the web and email lists ... all bets are off compared to what they used to be."

For one thing - what is *wrong* with asking the experts on a mailing list a question, even if it turn out to be a naive or ill-informed question? Were the experts located in the office down the hall, or the snacks table at the June Symposium, this sort of behaviour would be applauded, as getting the information from the source.

Indeed, my university went to great expense to invite and host such luminaries as David K. Lewis and Saul Kripke so graduate students such as myself could look them in the eye and question them on their work. True, some such brushed off my questions as naive, but others - with, I think, a keener eye to education - were kinder.

Yes, of course some questions are very basic and reveal a general lack of knowledge of the field. In fields where online enquiry is more prevalent such needs are handled with a FAQ (Frequently Asked Questions) file, to which new users (newbies) are routinely referred (indeed, many mailing lists post the URL of the FAQ at the bottom of each message).

DEOS-L writers - and others in the field of online learning - would do well to emulate this strategy. Instead of suggesting that students performing their studies online are in some way taking a short-cut, the online academics should throw together the weight of their knowledge and create a short reference pointing aspiring students to the stacks of knowledge already available on the web.

And who knows - perhaps the reference at the end of the essay might even lead them from in front of their computer terminal and into their library! But be ready for the grumbles cast in the direction of such inconsiderate authors, who can't be bothered to ensure wide accessibility to their materials.

Your Research for Sale on the net

What happens to research papers when colleges and package them and sell them to the highest bidder?

This is an interesting development...

> SkillSoft Corp.... today announced that it has recently signed an agreement with the Wharton School of the University of Pennsylvania to publish and distribute articles from Knowledge@Wharton, the school's research and business website. Under the agreement, SkillSoft will select articles from each bi-weekly issue of Knowledge@Wharton. These articles will be posted to the SkillSoft corporate web site and SkillPort, SkillSoft's e-learning platform.

The Knowledge@Aharton site provides summaries and links to pdf versions of academics' scholarly articles. It's a useful service, no doubt regularly trolled by science, tech and business writers.

Now no financial terms - if any - were released by Wharton or SkillSoft, but as SkillSoft turns around and uses these materials in revenue generating activities, it seems likely that over time we will see arrangements between companies like SkillSoft and institutions like Wharton for the distribution of academic papers.

Indeed, there will be considerable temptation for a company like Wharton to obtain exclusive rights over these publications: re-selling them to students and the media via some form of content syndication network would be a profitable business.

It has long been understood that academics own the rights to their own publications. This may change, just as we have been seeing pressure for change in the area of online course content. If colleges and universities establish a system whereby they pay royalties for course content, thereby assuming some rights over the use of that course content, then if they can charge fees for academic papers, it seems reasonable to assume they will try to enter into a similar arrangement with their academic authors.

Are university professors ready to produce research papers on a 'work for hire' basis? And what impact will this have on existing compensation arrangements when two primary activities of academics - course preparation and research publication - are sold and marketed on the open market.

These questions are asked in the light of other initiatives which strive to

remove academic works from the constraints of existing publication arrangements. For example, the ELectronic Society for Social Scientists is an initiative aimed at distributing academic publications at much lower cost (and free for the developing world). Or there is the Scholarly Publishing and Academic Resources Coalition (SPARC), the aim of which is to promote the creation of community controlled scientific journals.

The commodification of research papers would short circuit these initiatives, pushing professors into an exchange whereby they trade in their individual relationships (such as they are) with traditional journal publishers, and forge new relationships, via their institutions, with online publishers.

This is not necessarily good for professors, and arguably not good for research as a whole.

Questions for Professional Designers

> I have several agendas in this long note. One is to make clear the concept of learning content as delivered through multiple formats. The other is to comment on the discussion of traditional distance learning research as compared to current methodologies. The two topics dovetail nicely into the discussion of the 'costs of producing an online course'. What I want to show is that the very question, by its inherent appear to old theory, no longer makes sense in the current context.

I have several agendas in this long note. One is to make clear the concept of learning content as delivered through multiple formats. The other is to comment on the discussion of traditional distance learning research as compared to current methodologies. The two topics dovetail nicely into the discussion of the 'costs of producing an online course'. What I want to show is that the very question, by its inherent appear to old theory, no longer makes sense in the current context.

Call it a Kuhn moment.

From: John Hibbs *Quoting* someone else:

> *PDF? Only if it's designed for students to print out themselves. A PDF document is a lousy reading experience on the computer screen....they're hard to navigate and hard to read.*

I have to disagree as I find reading a pdf document quite nice often without all the distortions that come with different versions of Word, different platforms and html tagging changes. I think the small effort to put all Word documents into a PDF is worth the OPTIONs which I think we should provide students.

PDF should not be used for reading on screen, for a variety of reasons. See http://www.useit.com/alertbox/20010610.html

If this is a document to be used on-screen, I would suggest re-editing it.

This part mystifies me. Are you saying in the creation of a document you want studied, you would write it one way for a reader viewing on a screen and another way for a reader collecting and reading in print. Help me out here. This one is a true mystery

Short answer: yes

People's reading habits are different on-screen than in print. Jakob Nielsen (cited above) has a number of articles on this; other literature exists; see http://www.downes. ca/cgi-bin/links/view.cgi?keyword=main&concept=usability

For example: a person reading a printed page will look at the pictures first; a person looking at a computer screen will look at the text first. Also: people can tolerate longer paragraphs on the printed page than they can on the screen. This should be no surprise; people read newspapers differently than they read books or billboards. We don't even know yet what people will tolerate when reading from their cell phone or PDA, but no doubt it will be different again.

To hark back to a previous argument: items like this explain why a lot of old distance learning theory does not apply in an online environment. But I digress.

Different versions of the material should be created for each viewing environment. The usual way to this is to mark up documents using XML and then to use this base to create a different version of the document for each application. It is worth noting that PDF makes this impossible, since the main purposes of PDF formats are to (a) 'lock in' page formatting, and (b) encrypt and lock content.

One part would include ONLY the parts which need to be read on screen, and would be HTML. The part which had to be

printed could be PDF.

Well, I just can't figure out (for myself only, as vs. for all the students) which part would be read on screen and which on a printed piece of paper. That's like saying we have to decide in advance if the reader is in an airplane, at home or in a library and then create the piece depending on the reading situation. Help please?

The analogy isn't bad, actually. Consider, for example, information on aircraft safety. On an airplane, we want it to be short, easy to read, and well-diagrammed, since people may need to read the document very quickly. At home, we are usually willing to add more detail, such as examples and historical information, which places the information in a context. In a library, we are more likely to be doing professional research and so would want detailed studies of egress routes, simulation results, and further background research. Each viewing, both in presentation mode (card, newspaper article, textbook) and in context (emergency, leisure, research) creates a demand for different information.

But WAIT! Rather than make students print 75+ pages of paper - with content which is meant to be printed - why not make it a study guide which the students purchase from your bookstore along with the text? Save them the printing and headaches. 75 pages is a study guide by any name you choose. Call it what it really is, and keep it in the medium it was designed for.

I don't see any problem with that, except if pdf format they might elect to print themselves for convenience reasons; or they might go to Kinkos and get it. Or you might mail to them. Certainly, I would have ALL those options available.

Having students buy a pre-printed study guide is a good idea if they are near a location where it is sold. Requiring that they wait 6-8 weeks for the material to be mailed detracts from the immediacy of the online environment (studies show people expect a much quicker response time in an online environment) so a downloadable version should be available.

That said, in my opinion, if the content is 75 pages long, then it is probably too long, and won't be useful except in certain contexts.

I will skip point (b), though similar points could be made.

The basic issue again arises - if you want something to work on the web, change its form and content to that which works on the web.

This is the part that truly troubles me Al. You mean all those years I have

been constructing my international marketing class I have to change the content? and the "form". To what? How? Can you give me a specific example of how you have done this - tell me about a class that has different "form and content" on the web as vs. on f-2-f. That one I honestly don't understand. Help please.

Let me give you an example: WebReference http://www.web reference.com/

This is an example of an online learning site that doesn't even show on the radar screen of most online learning designers. Yet it is very effective, very popular (50K visitors+ per day) and very well designed. A person could learn all about website design and development using this site alone; no need for formal studies or courses.

The front page is designed for repeat visitors (naturally) - if you are new to the site, your best bet is to look at the site map, located at htt p://www.webreference.com/index2.html There you should notice listings divided by topics. Click on a topic and you'll see listings that vary according to topic. In addition to being a reference library, WebReference contains tutorials, access to experts, discussion, and more. More to the point, you can use WebReference in different ways depending on your need at the time. Some examples:

- as a traditional set of online courses: follow the 'tutorials' links and step through the instructions and examples
- as a reference tool: look up by topic or do a search
- as a form of continuous professional development: subscribe to the appropriate newsletter and read the articles
- as a community: exchange opinions, trade scripts, etc., in their discussion area

Now the point is: no face-to-face class could ever be structured this way. Because face-to-face is inherently linear and structured, it could include the tutorials and nothing more. But by structuring the tutorial contents so that they draw from - and indeed are a part of - the reference tool (and the newsletter, and the community), a variety of study modes is available. In my opinion, this makes WebReference a much more useful online learning site than a traditional class 'converted' to web format.

It's less obvious, but WebReference is structured to allow for different modes of delivery as well. There is a web WebReference, an email WebReference, an RSS WebReference, and more. All the information is drawn from the same database, but formatted differently according to output device.

Now back to my digression: I could be wrong, but it seems to me there is nothing about this in traditional distance learning research or literature. So far as I can tell, the vast bulk of this research literature is devoted to the topic of conducting *classes* over alternative media. Yes, the literature talks about the need for different content and content formats for different modes of delivery (telephone, ITV, discussion list). But it doesn't really talk about using the same body of information in different contexts. Certainly, I have seen no discussion in the literature which merges these two things: multiple modes and multiple contexts. I could be wrong, of course (it's really hard to keep up with the literature when the authors don't post it online), and would welcome any correction on this point.

I might add, too, that WebReference - typical of such online learning sites - is dynamic. Old material is continuously being updated, so that if you took the RSS tutorial (as I did) last year, you can be notified of updates, changes to examples, new versions of RSS, etc. The learning doesn't stop with the tutorial; the tutorial is just a tool to get you up to speed quickly. See http://business-times .asia1.com.sg/supplement/story/0,2276,3341,00.html for more discussion on this.

If you have lots of print documents which are designed to be used in print, and you're not going to re-design and re-think them, than make them part of a study guide the student buys from the bookstore.

Could you buy a dynamic, multi-mode searchable reference library from the bookstore? I thought not.

Well, I agree that putting all your stuff in an ORGANIZED manner causes you to think carefully about re-design and re-think...but surely that is what good professors do all the time anyway. Yes, I agree that once you have gone through this major headache of ORGANIZATION, you will have re-designed and re-thought the course? But the monetary cost for doing same should NOT be charged to "distance education". It is a "cost" that should be underwritten every year. Aren't all (good) classes each year re-thought? re-designed?

You see, there are multiple levels of organization in any field of study. Let me identify two, to make the point intuitive and obvious (I imagine some research 'discovered' this, but I'll dispense with a reference anyways):

1. Organization by level of difficulty
2. Organization by sub-topic

Thus, for example, you could have Beginner-HTML, Intermediate-HTML, Expert-HTML, Beginner-Perl, etc. Each of these subtopics breaks down into

additional topics. Mastery of a given topic, at a given level, is defined by a set of outcomes (or learning objectives); and thus we have another layer of organization.

Now in my view, learning design involves at *minimum* the creation of a multi-dimensional matrix incorporating each of these divisions (I know this is researched somewhere; it is the model that NAIT, for example, is using in the design of its e-business program. I was fortunate enough to review and make comments on their course structure and organization at this level).

After this process, you should end up with a whole bunch of little boxes, each with a topic, level of expertise, and set of learning objectives (I'm glossing a bit here, but only to leave the point clear). To each box, learning material, examples, diagrams (and whatever) are added. Not all the material that is added will be used in all cases; HTML for lawyers, for example, may differ from HTML for engineers.

At *this* point, course design - if you want a course - begins. An appropriate selection of boxes (preferably on the same topic and at the same level (but not necessarily - it could be a survey course)) is linked together. Perhaps some unifying elements are added - overall course objectives, a term project, etc. (Which should actually be elements in the smaller boxes, identified as a theme (or in web parlance, a 'tour', but I digress).

But why, having gone to all this trouble, would you then create a course that can only be used one way, in one mode of delivery, in one context? That's absurd! Better to leave your learning content as (unformatted) elements in a database, and then create courses, reference libraries, etc., as (glossing again) database enquiries, adding or excluding formatting and content as the situation warrants.

In an ideal world (which, sadly, we do not inhabit), each box is maintained by an expert who continually edits, modifies, and otherwise improves the content. These experts may live in different parts of the world and work for institutions. In some cases teams of experts will work on a box. One expert may work on several boxes. The list of topics, their organization, and the maintenance of other elements would be the ongoing task of standards bodies, professional organizations, researchers and other experts. Nothing is static: there is a continuous flow of changes. This becomes the common core of materials used by academic institutions and corporations around the world, studied by individuals on their own or with the guidance and tutelage of learning facilitators (who also add local content, additional examples, etc).

The designer would accept that the bulk of the text materials

would be uploaded to a bulletin board, of a kind we use at Franklin - free http://www.bfranklin.edu/gld5/board.htm. - (which allow threaded discussions and easy text uploads.)

Why? Print them and sell them to the student. SMALL volumes of text are indeed appropriate for that which John suggests...but not near-books.

Are your "fighting" the idea of threaded discussions on a bulletin board? If the text materials go on the board, doesn't this allow easy snipping, cut and paste, circulating ideas, arguments, discovery? Once you print them you are back to a one-to-many concept - far, far, far different than what Guy Bensusuan is so proud of. (I think Guy argues that once you post a topic, it gets "torn up", dissected, tossed around...the "re-design" "rethink" comes from the hashing of the document)...(not unlike what I am doing with this response to Al Powell?)

I think people should stop thinking of learning materials as 'documents' that can be "uploaded" or "printed" as a whole. This type of thinking treats learning more like books and less like a database. Think database. Think of uploading as uploading database elements. Think of printing as a structured database enquiry in a certain output format.

Move beyond paper. Even if you use paper, move beyond paper in your thinking. Move beyond linear. Even if you use linear, move beyond linear in your thinking.

a) - how many hours will it take to accomplish the uploading and a reasonably navigatable site?

See, it's not even a reasonable question any more.

This is the thing with paradigm shifts. Old questions no longer make sense, because they incorporate the precepts of the old paradigm. Just as old theories cannot be (as Mauri suggested) "reformulated" because the old theories contain built-in presuppositions. By analogy: we did not "reformulate" the theory of phlogiston; we discarded it. We cannot answer "How much phlogiston does a fire emit" because the question simply does not make sense.

From my point of view, a lot of the discussion on DEOS does not make sense because it is firmly rooted in old theories of learning design which in today's environment must be discarded (as people, as promised, introduce and describe these theories I may try to show how the current environment invalidates them).

Gawd. HERE is the reason that this group should push to involve the f-2-f instructors...Following the "let's just print last year's study guide is a whole lot easier than taking a threaded discussion on each and every portion of the study guide and posting a summary of THAT outcome. Is the "significant difference" that the majority of f-2-f teachers are lazy and the majority of distance education teachers are hard working?

Well - it is different, to be sure, but the explanation is not found in the fact that teachers are "lazy." I think that an annual review and improvement of each part of each course - online or offline, traditional or non-traditional - is a task no institution could afford. And moreover, it makes no sense to have a thousand *separate* reformulating and improvement exercises, each involving one professor, being conducted when we could have *one* being conducted by a thousand professors (or more likely, three or four each conducted by 250 professors).

Any media product has three characteristics: Good, Fast, and Cheap. You can pick any TWO of these for your project.

The truism is probably true. The way to escape the truism is to stop thinking of online learning as 'media products'.

I think that is very true for a "media" product. Those great Budweiser ads do not come cheap. But we are not in the "media" business. We are in the CONTENT and DELIVERY business. Maybe we should be thinking less bells and whistles (media) and more text, more writing, more interactive communication, more exploration, more original thought and a whole lot less printed study guide, good year in and year out. ????

Bells, whistles, text, writing: these are all forms of media. These are output formats. Nothing more. It's important to think beyond the media. Beyond bells. Beyond whistles. Beyond text.

Resources and References

Dave Beckett - Metadata Research
By Dave Beckett, who works with the Dublin Core. research and resources on RDF and Dublin Core
http://www.cs.ukc.ac.uk/people/staff/djb1/research/metadata/

Dave Beckett's Resource Description Framework (RDF) Resource
By Dave Beckett, who works with Dublin Core. This page is a hub of links to web pages containing examples, documents, papers and software.
http://www.cs.ukc.ac.uk/people/staff/djb1/research/metadata/rdf.shtml

Useit.com: Jakob Nielsen's Website
Five years' archive of Jakob's bi-weekly column on Web usability, including Metcalfe's Law, web research, content integration, top ten mistakes of Web design, web project management, and how people read on the Web
http://www.useit.com/

Death of the PC-Centric Era
IDC forecasts that embedding these non-PC devices will account for almost 50% of unit shipments by 2002, dramatically driving down the PC's share of the market. IDC Executive Insights Analyst: Frank Gens.
http://www.idcresearch.com/F/Ei/gens19.htm

Libraries of the Future
Media specialists can maintain a leadership role as schools move into the next century with school media centers serving as the core of an active learning program dedicated to student inquiry, investigation and research. By Jamie McKenzie, The Educational Technology Journal November, 1993.
http://www.fno.org/libraries.html

The MediaMOO Project: Constructionism and Professional Commu
MediaMOO is a text-based, networked, virtual reality environment (MUD) designed to enhance professional community among media researchers. Amy Bruckman and Mitchel Resnick Epistemology and Learning Group MIT Media Lab. Convergence, 1:1, Spring 1995.
http://asb.www.media.mit.edu/people/asb/convergence.html

The Design of Personal Technologies to Support Lifelong Learning
Abstract submitted to CAL '99 Conference by Mike Sharples, Educational Technology Research Group, University of Birmingham. An overview of the changing nature of lifelong learning, requirements for its success, and tools and pedagogies necessary for that success. The full pdf article is available at
http://www.eee.bham.ac.uk/sharplem/handler%20comped.pdf
http://www.eee.bham.ac.uk/sharplem/HANDLER%20CAL%2099.htm

Instructional Technology Research Online
As the name suggests, a site devoted to instructional technology research. Georgia State University.
http://www.gsu.edu/~wwwitr/

International Centre for Distance Learning
The International Centre for Distance Learning (ICDL) is an international centre for research, teaching, consultancy, information and publishing activities based in the Institute of Educational Technology. ICDL distance

and online course directory contains information on over 31,000 distance learning programmes and courses mostly in the Commonwealth countries, over 1,000 institutions teaching at a distance worldwide, and over 11,000 abstracts of books, journal articles, research reports, conference papers, dissertations and other types of literature relating to all aspects of the theory and practice of distance education.
http://www-icdl.open.ac.uk/

AdResource
Ad Resource is a listing of resources for Web banner advertising and marketing community. Web marketers can use the site to do research, build contacts, and keep up to date on the latest happenings in Internet advertising.
http://www.adresource.com/

The Strategis Group
The Strategis Group publishes in-depth market research reports (marketing, demographics) and provides customized consulting services and continuous information solutions to cable TV, satellite, Internet, competitive telephony, broadband and wireless communications industries.
http://www.strategisgroup.com/

USADemocracy
This site promotes online democracy by allowing users to register in their congressional district, view and research proposed legislation, and record their vote on the registration.
http://www.usademocracy.com/

Search engines lag behind Internet
Internet search engines aren't keeping pace with the explosive growth of the Web and are covering only a fraction of what's available online, researchers report in the journal Nature. We knew this, but it's nice to see it documented.
By Peter Svensson Associated Press, September 8, 1999.
http://deseretnews.com/dn/view/1,1249,115007537,00.html?

Centre for Research in Electronic Commerce
From the University of Texas, a major site for ecommerce. Tons of resources, research, and more.
http://cism.bus.utexas.edu/

Groupware Central
News, tools, research, links and more. Includes a free download of a very simple groupware program.
http://www.cba.uga.edu/groupware/groupware.html

WIT Capital
Reports on e-commerce and other online businesses. Regular research reports.
http://www.witcapital.com/research/reports/reports.html

Internet Investing White Paper
A good overview of e-commerce, especially the second section. The Internet investing white paper is organized in three parts: 1.An Introduction to the Internet 2.Business Models of Internet Companies 3.Valuation of Internet Stocks. WIT Capital, September 20, 1999.
http://www.witcapital.com/research/reports/rr_white_990920.html

Top E-Commerce Brands Recognized By 100 Million Adults
A new study released today by the Opinion Research Corporation International indicates that the top Internet e-commerce brands continue to capture and maintain the largest share of public awareness among the U.S. adult population.
http://www.witcapital.com/research/reports/rr_ecom_990826.html

E-Knowledge: New Ways to Build the New Economy
The E-Knowledge Industry The increasing value of human capital in the New Economy has created a need for more and better forms of education. The intersection of technology and education will help satisfy this need and be an immensely powerful trend for the foreseeable future. The e-knowledge industry capturing an increasing share of the education market, as technology and the Internet encroach on one of the world's oldest and largest industries. WIT Report, August 11, 1999
http://www.witcapital.com/research/reports/rr_eknow_990811.html

Developing and Applying A Cost-Benefit Model for Assessing TeleLearning
This project develops and tests a methodology for measuring the costs and benefits of TeleLearning (aka distance learning) projects. TeleLearning is the use of multimedia learning environments based on powerful desktop computers linked by the information highway. I didn't agree with all their findings but it's worth a read. By Tony Bates and Silvia Bartolic-Zlomislic.
http://research.cstudies.ubc.ca/nce/index.html

AnchoredDisplays: The Web on Walls
It's gonna be a HUGE business... take a web browser (with wireless access, of course), set it to reload a certain page (news, weather, traffic, the seashore...), hang it on a wall, and voila... I called them WADs, Manish Tuteja calls them Anchored Displays. MIT Media Lab, undated but recent.
http://www.media.mit.edu/pia/Research/AnchoredDisplays/index.html

Http://www.sfu.ca/mediapr/Releases/News/1999/September1999/Online.html
A new SFU research initiative recently received funding to develop standardized electronic publishing tools that will enable the academic community to fully embrace online publishing and receive their scholarly journals online. Simon Fraser University news release, September 17, 1999.
http://www.sfu.ca/mediapr/Releases/News/1999/September1999/Online.html

Canada Foundation for Innovation
The CFI is funding a major ($50 million) site licensing project in order to reduce the cost of online journals and to provide access to research databases.
http://www.uottawa.ca/library/carl/projects/CFI/cfi.htm

Latest Hit on Campus: Crescendo in E-Major
Colleges and universities nationwide are rushing to turn the study of e-commerce into degrees, majors, minors, concentrations, specialties, certificates, fellowships and research centers. By Mary B.W. Tabor, The New York Times (registration required), September 22, 1999.
http://www.nytimes.com/library/tech/99/09/biztech/technology/22tabo.html

Web Characterization Project
The OCLC Office of Research Web Characterization Project is an ongoing initiative to pursue research in the area of Web characterization. This site provides project documentation, Web statistics, and analysis.
http://www.oclc.org/oclc/research/projects/webstats/

Ethnomethodology, Conversation Analysis &; Asynchronous Computer-Mediated Conversation
By Donald J. Winiecki. It's only a list of references for now, but he promises more for later.
http://coen-nt1.idbsu.edu/DWiniecki/research/CA&ACMC.htm

Developing Classroom Communities in Distance Education
Interesting: he writes, "inquiry on the development of classroom community in distance education via asynchronous computer mediated conferencing. From my literature searches, I've discovered that the collaboration that occurs in such classroom communities is necessary for the process that others have called shared cognition." By Donald J. Winiecki.
http://coen-nt1.idbsu.edu/DWiniecki/Research/classroom_community.htm

Natural Human Computing
Researchers have developed a computer algorithm that imitates a fundamental characteristic of human knowledge and information processing - the ability to

distinguish patterns within large amounts of data, text, or images. By Lindsey Arent, Wired News, October 27, 1999.
http://www.wired.com/news/technology/0,1282,32093,00.html?tw=wn19991027

New Site Promises Govt Just One Click Away
The designers of a new government portal today unveiled a Website through which consumers throughout the country can pay parking tickets, renew licenses, and research their elected officials. The big question is - which way to go, centralized, or distributed? CNN News Bytes, November 9, 1999.
http://www.cnnfn.com/news/technology/newsbytes/139116.html

Corporate University Xchange
Corporate University Xchange, Inc. is an education research and consulting firm that assists organizations in optimizing their education and training resources.
http://www.corpu.com/

Online Learning Community for Support Staff
Example of an online learning community. Fred Hutchinson Cancer Research Center
http://www.fhcrc.org/~learncom/index.htm

Designing the Digital Government of the 21st Century: A Multidisciplinary Workshop
Very useful symposium exploring online government. Check out especially the workshop summary for a list of key factors.
http://www.ctg.albany.edu/research/workshop/digitalgov.html

E-Business: You Can't Just Add It On or Plug It In!
AMR Research's E - Business Model provides organizations with a framework to understand the importance of incorporating E - Business strategies and products into a company's overall IT strategy. By Jim Shepherd, Senior Vice President, AMR Research.
http://www.amrresearch.com/EXV/9911exv.asp

Cable's On-Line Pedagogy Distance Learning Portal
A large collection of useful links related to distance education and online learning, including work on pedagogy, research, development tools and much more. By Cable T. Green.
http://jac.sbs.ohio-state.edu/cable/pedagogy/

Interactive Features of Online Newspapers
Good well-researched article blending two of my interests: journalism, and

especially online newspapers, and interaction. Well worth a read. By Keith Kenney, et.al., First Monday, January 10, 2000.
http://www.firstmonday.org/issues/issue5_1/kenney/index.html

The Brookings Institution
Online presence - including research papers, discussion and chat - for this U.S. based institution specializing in government studies and related topics.
http://www.brookings.edu/

The Net, At Your Service
Forrester Research is predicting a $220 billion online customer service market by 2003. That seems about right. By Walid Mougayar, Business 2.0, January, 2000.
http://www.business2.com/articles/2000/01/content/feature_2_5.html

Teaching at an Internet Distance Seminar
This important research report provides an excellent overview of online learning and some cogent observations about its potential and limitations. Still headily conservative, the authors tend to target online learning toward niche markets. But the research is thorough, the writing clear and the thinking first rate. University of Illinois, 1999.
http://www.vpaa.uillinois.edu/tid/report/toc.html

Intelligent Agents for Online Learning
The title says it all, doesn't it? Excellent discussion of emerging technologies in online learning, along with research results from a pilot study. By Choonhapong Thaiupathump, et.al., JALN Volume 3, Issue 2 - November 1999.
http://www.aln.org/alnweb/journal/Vol3_issue2/Choon2.htm

Measures for Evaluating Automatic Subject Assignment of Electronic Resources
More research results in the field of automatic categorization. Keith Shafer, Srividhya Subramanian, Jon Fausey OCLC Online Computer Library Center, Inc., July 26, 1999.
http://orc.rsch.oclc.org:6109/measures.html

Research and Learning Facilitation
A nice point by point enumeration of the roles of a facilitator - as they call them, the 'Set Advisor'. Meant for a more traditional setting but very transferable to online learning.
http://www.mcb.co.uk/imc/coursewa/msc/msc-5.htm

Learning Objects and Instruction Components
Learning objects, as defined by the IEEE's Learning Technology Standards Committee, are "any entity, digital or non-digital, which can be used, re-used or referenced during technology supported learning." This paper introduces the concept, reviews current work in the area, and discusses recent research.
http://ifets.ieee.org/discussions/discuss_feb2000.html

Corporate E-Learning: Exploring a New Frontier
This report focuses on corporate training, one of the five segments of the education and training market. In particular, it identifies key drivers, performs preliminary market segmentation, and estimates growth for market segments and product groups of the technology-based corporate online learning and training industry. WR Hambrecht & Co.
http://www.wrhambrecht.com/research/coverage/elearning/ir/ir_explore.html

TalksPage: Worldwide Scientific Exchange Server
The creators hope to provide a place where any scientist in the world can post their talk or presentation in audio format. The talks are delivered by researchers from well-known universities in areas of physics, chemistry, and math.
http://medium.stanford.edu/

A Study Produces a List of 24 Benchmarks for Quality Distance Education
A study of top distance-education programs has led researchers to compile a list of 24 benchmarks that they say can be used by institutions eager to create high-quality offerings. By Dan Carnevale, Chronicle of Higher Education, April 7, 2000.
http://chronicle.com/free/v46/i31/31a04501.htm

Distance Education Research
Useful guide for those just beginning to look at distance education or online learning, containing important links with short descriptions. Kristin Hirst, About.Com, February 14, 2000.
http://distancelearn.about.com/education/distancelearn/library/weekly/aa021400a.htm

Measuring a Community's Success
Lessons from e-business. Slide show about online community evaluation metrics. By Joe Cothrel Vice President of Research Participate.com, September, 2000.
http://www.eknowledgecenter.com/sfc/participate_files/v3_document.htm

Categorization of e-Learning Elements
Really good listing of all products, all vendors, for online learning products,

sorted into major categories. Research Dog, LLC.
http://www.researchdog.com/resources/elearningenterprises.html

Methodological Issues in the Content Analysis of Computer Conference Transcripts
The paper is designed to assist researchers in using content analysis to further the understanding of teaching and learning using computer conferencing. By Liam Rourke, Terry Anderson, D. R. Garrison and Walter Archer, International Journal of Artificial Intelligence in Education, 2001, 12
http://cbl.leeds.ac.uk/ijaied/abstracts/Vol_12/rourke.html

Knowledge Garden
Online community devoted to information and research on Communities of Practice, Generative Leadership Strategies, Intellectual Capital, Knowledge Ecology, Organizational Intelligence, and Virtual Communities
http://www.co-i-l.com/coil/knowledge-garden/index.shtml

Chapter 7 ~ Copyright

Deep Links

The question of deep links - links which point to a specific page within a site rather than to the home page - is best addressed through technology, and not through copyright legislation.

Posted to DEOS-L 14 August 1999

Much discussion on this list has recently focussed on the question of deep links, that is, links which point to a specific page within a site rather than to a front or cover page.

Like most such questions regarding internet connectivity, this is a question which is best solved through technology and not through law.

Owners who wish people to enter the site through the front page need only add a very small script to their web pages which will redirect users to the front page if that user is entering the site from an outside site.

```
<script language="javascript">
<!--
if {document.referrer != "http://www.atl.ualberta.ca/downes/home.htm") {
document.location ="http://www.atl.ualberta.ca/downes/home.htm");
```

```
}
//--->
</script>
```

Place this into the head of your HTML files (making sure the referrer points to your page and not mine ;)) and nobody using Javascript (the vast majority of users) will ever be able to deep link into your site.

Now - given that such a simple solution exists, one must ask two questions:

First: why would anyone want to use the heavy hand of the law to force people to do something when such an easy alternative exists? I don't think there is a good answer to this question.

It would be like enacting legislation which prohibits a person from opening a book directly to page 257. No such law exists, for the simple reason that if they author wants to prevent a person from opening to a specific page, he or she need only publish the work as a scroll, and not a book.

It makes no sense to pass laws prohibiting the use of a medium via means inherent to that medium, especially when alternative media exist. Just so, linking is inherent to the World Wide Web; the web would not exist without it. So it makes no sense to pass laws prohibiting, or even limiting, the use of linking.

But more importantly, the second question is this second: why don't online publishers actually do this? Why don't we see sites redirecting people to the front page all the time?

I think that the reason is that people would not use a site constructed in such a manner. They would not want to click the three or four links that it takes to obtain the resource in question (if they could even find it again). One of the key principles of successful commercial sites is: make it easy for the user.

Moreover, most sites which are supported via advertisements place banners on each of their content pages. Thus, for example, even you link directly into a page in last year's Mercury News, you are going to view a banner with today's advertising on it. Ad revenue is an aggregate of all the banner views, so the News doesn't care whether you viewed only the home page or only the content page; what is key is that you viewed the banner.

I really don't think there is any issue regarding deep linking, either from a copyright or a marketing point of view. And much more important questions regarding copyright exist.

For example, a number of people posting to this list have quoted American copyright law to defend a restriction QED. But it's not that simple; we need also to ask whether laws defined for print publications are appropriate in an electronic medium. And we need to ask whether American legislation, which is by far and away the most generous to the copyright owner, is the best legislation to implement on a global scale.

Copyright Issues

Copyright is frequently an issue on this list. When any such question arises, Carl Franklin is there to help us with the law. But while I appreciate Mr. Franklin's generosity, I am increasingly frustrated by the narrow view of the issue he presents.

Posted to DEOS-L 13 September 1999

Copyright is frequently an issue on this list, a statistic reflecting the fact that it is increasingly an issue for distance educators. When any such question arises, Carl Franklin is there to help us with the law. But while I appreciate Mr. Franklin's generosity, I am increasingly frustrated by the narrow view of the issue he presents.

While most distance educators are working in a day-to-day reality which requires that they consult without comment the dictates of law, it is my opinion that there ought to be a more wide ranging discussion of copyright, at least on a list of academics and researchers such as this.

Mr. Franklin's frequent references to the law, in my opinion, overlook several factors:

1. Very often, the cases he cites (such as Princeton University Press, et.al. v. Michigan Document Services) are from the paper-based domain, and not the domain of online learning or online resources. I have yet to see a good argument from him showing that the law transfers smoothly into electronic content.

1a. An online reproduction is fundamentally different from a paper-based reproduction. In an email to WWWDEV 06 August 1998 I argue that the very concept of 'copying' is altered by new technology. See wwwdev11.htm

1b. Material available online is - with very few exceptions - fundamentally free. Users pay only internet access charges (and those to a service provider, not the copyright holder). A copy of a web page, therefore, cannot diminish

the value of that web page because the web page had no value to begin with.

1c. It is not clear that a web site - even a web site for an online course - constitutes 'publishing' or 'broadcasting'. Sure, Mr. Franklin cited some cases where 'course packs' were created by photocopying text books. But in the cases cited, the copiers reproduced hundreds of copies, and in some cases, sold them for a profit.

2. Moreover, even were he to cite some case law attesting to this (there are some examples scattered about), in my opinion, he needs to present a case showing that copyright law *ought* to be so transferred, lock, stock and barrel. The presumption - at least on the part of many people working on the internet - is that electronic media constitute a fundamentally new domain, and that the law will have to be rewritten, and not merely transferred wholesale.

3. Mr. Franklin's citations always seem to present a bias in favour of the copyright holder. It is true that the law favours copyright holders to a significant degree. Yet he is silent about cases which favour the person doing the copying. Some examples:

3a. If the material being copied is in the public domain, or is a representation of material which ought to be in the public domain, then it can be copied. A good example of this is addresses and telephone numbers, as in the case of Feist Publications, Inc. v Rural Tel Service Co., 499 U.S. 340 (1991) (U.S. Supreme Court).

3b. If the material is reproduced for the purpose of parody or criticism, copyright is not violated. A good example of this is 2 Live Crew's Parody of Acuff-Rose Music's "Oh Pretty Woman". Capbell v Acuff-Rose Music, 92-1292 U.S. Supreme Court.

The judges comment, "The fair use doctrine thus "permits [and requires] courts to avoid rigid application of the copyright statute when, on occasion, it would stifle the very creativity which that law is designed to foster." Stewart v. Abend, 495 U.S. Supreme Court 207, 236 (1990) (internal quotation marks and citation omitted)."

3c. The rebroadcast of copyright materials is not always a copyright violation. For example, it is perfectly legal to rebroadcast radio signals in a restaurant. Twentieth Century Music Corp. v Aiken 422 U.S. 151 (1975) U.S. Supreme Court.

Many more examples exist where the copier - not the copyright holder - won

the day.

The three cases cited above - as well as the three cases cited by Mr. Frankin in his original email - may all be found at http://fairuse.stanford.edu/primary/index.html#caselaw. A full and fair treatment of the subject by Mr. Franklin, I think, should properly have included the URL of what appears to have been his primary resource.

4. The cases cited by Mr. Franklin are of exclusively American origin. While American influence is strong, it is not yet the case the American law prevails internationally. DEOS is an international list, and many questions of copyright law, while resolved in American courts, are not resolved in international law.

4a. It is not clear that American law ought to be the standard by which we govern ourselves internationally. As Americans hold the majority of copyrights in the world, it is natural that American law would favour copyright holders. Courts in less enfranchised nations might be less favourably inclined.

4b. It is not clear that strong copyright protections as envisioned in American law are appropriate in an international context. Many nations cannot afford the high royalties charged by American companies, and yet have a mandate to provide an adequate education for their citizens. In such cases, one would think, national interest should prevail.

Some criticism,

The U.S. Court of Appeals for the Sixth Circuit concluded that the copying of excerpts from books and other publications by a commercial copy service without the payment of fees to the copyright holders was NOT fair use. In other words, just because it was for an academic or teaching purpose is not - in and of itself - enough to warrant even the copying of 5% of a total document.

Mr. Franklin's summary of the case is accurate. His interpretation (beginning with the phrase "in other words") is not. Kinko's lost the case, not in spite of the educational use provision, but rather, because the judges ruled that Kinko's use was *not* educational use. They write, "The use of the Kinko's packets, in the hands of the students, was no doubt educational. However, the use in the hands of Kinko's employees is commercial. Kinko's claims that its copying was educational and, therefore, qualifies as a fair use. Kinko's fails to persuade us of this distinction."

Another case worth mentioning has to do with photocopying "scientific

journals" under the "fair use" exemption. In American Geophysical Union v. Texaco, Inc., 60 F.3d 913 (2d Cir. 1995), the court closely examined the issue and again set forth the standards to be applied.

What Texaco did was to hold one or a few subscriptions to scientific journals, then provide copies of articles of those journals to its 400 to 500 research scientists, not for immediate reference or use, but rather, to provide each researcher with a library of relevant materials. very little academic photocopying resembles this sort of use.

One of the better discussions of "fair use" comes in Campbell v. Acuff-Rose, 510 U.S. 569, 114 S.Ct. 1164 (1994). This case has been one of the more notorious in recent years and since it comes from the U.S. Supreme Court can be said to be the last word on the issue (so to speak).

It is clear that the fair use doctrine "tempers the protection of copyright by allowing ... [the] use [of] a limited amount of copyrighted material under some circumstances." See, Twin Peaks Productions, Inc. v. Publications International, Ltd., 996 F.2d 1366, 1373 (2d Cir.1993). It is also clear, though, that "fair use" is not a carte blanche grant of permission simply because the use is for academic/research/teaching purposes.

I might point out this is about the only paragraph in the entire ruling which points to any restriction at all. As indicated by the quote I cite a number of paragraphs above, the judgement on the whole expresses just the opposite sentiment. And recall that the ruling supported the defendant, not the copyright holder.

Mr. Franklin wraps up,

The long and short of it, in my never humble opinion, is that copying something from the Internet (or other electronic source) may be a copyright violation is if does not fit one of the enumerated exemptions. For a "fair use" claim one would have to show you have met the guidelines of the statutory language as well as current case law.

The presumption here is that the use, in order to count as an instance of fair use, must be explicitly endorsed by legislation or case law. In other words, if it is not explicitly permitted, it is disallowed. But why would that be the case? It seems equally plausible to argue that the onus is on the publisher to show that the use is *not* an example of fair use.

Certainly, the prima facie case is on the side of the educator. The copying *is* educational, it is *not* for commercial purposes, and (especially in the case of web sites) it does *not* affect the value of the copyrighted material or the

potential revenue obtained by the copyright holder. One would think that exceptions to the fair use provision would be *hard* to find in the academic environment, not the norm.

But we know where Mr. Franklin's sympathies lie,

On a side note (and this is just a pet peeve of mine), the term "Xerox" is a violation of Trademark. The Xerox company is very stingy with the use of their name: it is not a verb. You can NOT "Xerox" something or make a "Xerox" - you can, however, photocopy or reproduce using a Xerox machine.

Most likely Mr. Franklin would like us all to use the word 'icebox' instead of fridge, as well.

But more likely, Mr. Franklin is missing the point of common discourse and common language. Many images, icons and trademarked phrases, such as "Where do you want to go today?" or even "The Net" are instances of trademark phrases, and yet are cited in conversation, posts to discussion lists, and even on web pages without accreditation.

Copyright is not - and was never meant to - govern the day-to-day correspondence of people one to each other, even in a forum such as this, where my use of those phrases reached an audience of over a thousand.

Language does not belong to the copyright holder. It is a common currency, a public domain, a medium of exchange shared by all and owned by all. In the discourse which takes place between student and student, or between instructor and student, many provisions of copyright do not apply because they are instances of private correspondence.

Online communication is an extension of that correspondence. It enables one person to communicate with many, or for a communication to persist over time, but that in no way makes it less of a private correspondence.

Copyright and Syndication

Content syndicator Moreover.com is requiring that users sign an agreement granting Moreover sweeping rights... too many rights

August 9, 2000

A few months back I signed up for a Javascript newsfeed from Moreover. The idea was to replace my existing newsfeed from iSyndicate. This would

save me the trouble of messing around with frames; iSyndicate's HTML page allows minimal customization, but Moreover's Javascript newsfeed could be inserted neatly into a template page.

Newsfeeds aren't hard to produce. Basically, for a newsfeed provider, it's a three-step process:

1. use a simple web spider to grab headlines from a collection of newspaper websites;
2. organize those headlines into categories; and
3. provide access to those categorized lists of headlines.

The first of these search engines have been doing for years. It is not hard to write software that scans a site and retrieves the URLs.

The second is a bit harder because categorization can be hard. This is why most syndication companies provide only a small list of categories - "Tech news," for example, or "China." But with more and more news agencies producing content in RSS format, it is getting easier for syndicators to assign items to the correct category.

The third area is where the changes are taking place. Once restricted to producing output on HTML pages, syndication companies are now placing their output into specialized files. The idea here is to allow web site owners to *embed* syndicated content into their own sites.

That's what Moreover does with its Javascript feeds. It collects headlines and then saves them to a specially designed Javascript file. This file is updated every day. Webmasters who want to include their newsfeeds need only include the Javascript file - a simple one-line command - into their web page.

Which brings me to the topic of this article. As I mentioned, I signed up for the Moreover newsfeed and tested it on my website for a while. This past Tuesday I received a nice letter from Moreover's account executive:

> All,
>
> I noticed that each of you have signed up for our news feeds using our Webfeed Wizard. I wanted to see how things are going with that, and hopefully get some screen shots to see how it looks on your intranet sites. Also, if you are currently using our news feeds, please complete the attached agreement and fax it back to me at 415.707.2005. If you have any questions, or would like more information, please let me

know.

I won't reprint the attached contract, but it is available - in MS Word format - here. The document itself is a mess - full of corrections and type-overs. And signing the document implies agreement that Moreover has exclusive rights to - well - everything.

From the contract:

3.1.1

The new Economy Applied to Engineers

Copyright and royalty legislation will not protect artists - it will actually hurt them.

There has been a pretty determined attack on the idea of copyright-free distribution of music, publications, and the like. Indeed, one of the trolls I posted within the last week depicts the rising anger of authors about used book sales on Amazon, since they are thus being deprived of royalties.

Scott Adams' recent set of Dilbert cartoons is intended to trivialize the idea of copyright-free distribution by applying it to other fields, such as software engineering. He is depicting the engineer as an artist who works on tips, just as (in his mind) the writer or musician whose works are distributed for free must also work on tips.

The gag is effective and good for some cheap laughs, but it misrepresents both the debate and the copyright-free marketplace.

But let's turn our attention to Wally (the engineer) for a moment.

Wally works for a company. Were he an independent, he would work for a contractor. For his pay (salary or contract), he would produce a specific product: a piece of code, a hardware design, or some documentation. Once Wally has created and delivered that product, he no longer has a copyright stake in the product. It is now owned by the company that hired him.

We can make fun of Wally working for tips, but in fact, enforcing, protecting or increasing copyright and patent protection will not help Wally one whit. He is *already* in the service industry. The copyright increasingly protects his employers (who, ironically, now have *less* of a need for Wally's services than they did before.

The same thing is happening in the publishing and music industry. As Courtney Love pointed out not too long ago, musicians are increasingly being signed to "work for hire" contracts, which means effectively that the copyright transfers to the publisher.

The same thing happens in the publishing industry. I was recently asked to submit a paper to a technical journal, but on reviewing the contract found that I would be assigning all rights - including moral rights - to the journal publisher. I would require permission to reprint *my own work*. This is widespread, which is why you see the phrase 'reprinted with permission from the publisher' in anthologies and similar collections.

The fact is, copyright protects me only if I get big enough (or famous enough) to demand a share of the royalties. That doesn't happen a lot: only the most significant actors and actresses, authors and cartoonists, musicians and other artists get to collect royalties. Before you start citing counterexamples, think of the hundreds of Taiwanese animators who actually draw the Simpsons episodes, the session musicians who backed Metallica, the journalists who cover today's news, or the person who created the Energizer Bunny.

Moreover, as we are increasingly able to store and retrieve information worldwide, the demand for new product actually decreases. This week, for example, the Beatles released yet another compilation album, *1*, a collection of their number 1 singles. As it shot to the top of the charts in Britain, a contemporary musician was displaced.

We already have a canon of hundreds of thousands - millions, even - of musical works, books, how-to articles, cartoons, and other artworks, many of which are immensely popular and which will continue to sell for the indefinite future. As this body of information is made available, people are less likely to require new versions. Sure, there is always the desire for something fresh and original, but this market is being swamped by the desire for something old and familiar.

Why would a publishing company pay to develop and promote a new band to teens (who have no history) when they can accomplish the same sales by dusting off some old Floyd concept albums? Why would a publishing company hire - and pay royalties to - an author to develop a trigonometry text when the same material already rests in its data banks?

Artists, musicians, writers and cartoonists probably do not like the idea of being lumped into the service industry - no doubt, the do not like being in the same class of employee as waitresses and busboys - but royalty protection will not save them from that fate, it will only accelerate it.

Copyright Tips for Online Educators

> University professors should hesitate before they insist on stringent enforcement of copyrights... experience from other fields shows that the artists often end up holding the short end of the stick

"L. Heidi Primo" wrote:
Aloha from the Big Island of Hawaii: I am another one who has been lurking on the edges of this list silently for months. I am jumping in here to respond to Stephen Downes' interpretation of copyright law. I have done extensive research on this topic "Survey of Intellectual Property Issues for Distance Educators and Online Teachers" and wanted to provide a link to a fairly thorough explanation of the related copyright issues written cooperatively by myself and a colleague in Alaska. It can be viewed at: http://homepages.go.com/~hiprimo/primoles.htm If anyone is interested, it also has a hot-linked bibliography/ webography, which points to law schools and organizations which are dealing with some of these controversies.

Heidi Primo and Teresa Lesage's article, cited above, is a good overview of copyright as it relates to distance learning and is supported with an excellent list of references. It provides a clear, concise statement of one side of the issue.

I would like to offer an account of the other side; Primo and Lesage offer a useful platform.

They write,

> Intellectual Property is the original product of our own experiences and thoughts. How can we put a price-tag on it? How can we market it, license it, box it and put it on a shelf?

One of my major criticisms of the pro-copyright lobby is that nobody questions this assumption. Indeed, Primo and Lesage offer this as the starting point for their essay. But they do not consider whether it is appropriate to box knowledge and put it on the shelf.

Consider, for example, the argument that university professors are, for the most part, already paid to produce intellectual value for society. What reason is there, therefore, to charge society again for the use of learning they have already paid for?

Indeed, the entire question of whether knowledge and information ought to be a commodity ought to be challenged. One could certainly advance the argument that much knowledge - basic mathematics, for example, the

principles of reasoning, government and legal information, and more, ought to be in the public domain, and ought not, therefore, be boxed and shelved.

Primo and Lesage continue,

> One of the rationales for the existence of copyright law is to encourage and promote creativity, which ultimately can only benefit society. The protection of the law acts an incentive to artists and publishers to invest time and money in artistic enterprises.

There is no doubt that this is one of the major arguments advanced in favour of strong copyright protection. Scott Adams has made this point in a number of recent Dilbert cartoons, and SF writer Spider Robinson made the same argument in a recent issue of Canada's National Post newspaper. They are only the latest of dozens.

It is, however, an argument which withstands not even the slightest scrutiny. The idea, of course, is that people will not create great works unless they are paid to do so. But that begs several questions:

First, is this even true? Many of the great works of recent years were produced with no regard to financial award: the Linux operating system, the Apache Web Server, the World Wide Web. Thousands and thousands of articles appear daily whereby the writer received not one cent. Even academic authors, who write important papers for respected journals, are not paid money for these efforts. No, the creative process will continue, and even great works will continue to be produced, even is the creators are not paid directly for this work.

Second, it begs the question of whether copyright is the only means through which authors may be compensated for creating original work. The concept of royalties is recent; academics and artists historically worked under the patronage of nobles and kings. Nothing prevents academics and artists from being paid on this model, and indeed, it was this model which spawned the development of publicly funded universities in the first place.

Third, it is not clear that copyright law even works as intended. As Courtney Love made scathingly clear in her recent defence of Napster, artists are not the primary recipient of the benefits of copyright law at all; indeed, she describes the very real scenario in which a band can sell a million records and lose money in the deal. It is arguable that the lion's share of the profits from copyright legislation benefit the copyright owner, who is very frequently not the producer of the original work.

The distance learning community especially should be wary of recent initiatives on the part of the American government to extend the provisions of WIPO to include a "presumption" that work performed by contract is "work for hire," that is, that unless the contract states explicitly otherwise, the work is considered to be owned for the company which paid for the work rather than the person who performed it. Academics should also be concerned about efforts to abrogate "moral rights" (the right to preserve the integrity of a work).

Primo and Lesage comment,

> According to this definition, then, every part of an American Distance Learning application would be logically protected under U.S. law. So then, would the resources, documents, readings and contributions, which make up the classes.

Academics ought to consider this very carefully. If indeed the presumption is that teaching a class is work for hire, and if indeed the presumption is that the company which pays for the work owns the rights, then under existing and proposed legislation, the employer (i.e., the university) owns the "contents" of a class, online or not, and not the professor. In a more competitive academic environment, one could easily imagine a professor being prohibited from giving "performances" of a class at one university the contents of which were in large part developed while working at another university. One could also imagine - and it is already happening with companies like UNext and Hungry Minds - a university selling the sole and exclusive right to certain "performances" to a private provider, this forcing the professor into an exclusive (and one sided) arrangement with a corporate entity.

Copyright protection - as authors and musicians have already discovered - is very much a two edged sword, one edge of which appears considerably sharper than the other.

I won't analyse every statement in the essay, but you can see where the general tenor of my remarks is heading.

Primo and Lesage wrap up their argument with the following observation:

> Without the support and confidence of distance educators in their ability to protect their rights after publishing on the Internet, asynchronous learning and web-based classes will not flourish.

Where is the evidence for this? The evidence seems, indeed, to be contrary:

that learning on the internet has flourished just because of the absence of rights restrictions. Where before the internet came on to the scene, the domain of knowledge was reserved for a privileged few, but today it is accessible to the masses. No wonder the monopolists are threatened.

I think that academics should think very carefully the implications of a transforming of what they do from a *service* to a *product*. They should ponder the implications of what happens what they do in their day to day lives can be packaged and sold. They should be wary about what will happen should they ever lose the right to perform this service without the permission of various copyright holders.

Academics should be aware: the vast majority of writers and musicians is dirt poor, while the vast majority of university professors is relatively well off. And they should not be so eager to join the ranks of the creatively underpaid.

Resources and References

Are You a Copyright Criminal?
Writers, designers, artists and copyright owners are becoming more aggressive, using new tactics and technologies to enforce their rights. By Dave Zielinski for presentations.com
http://www.presentations.com/create/organiz/1999/06/31_f1_cop_01.html

10 Big Myths about copyright explained
An attempt to answer common myths about copyright seen on the net and cover issues related to copyright and USENET/Internet publication. By Brad Templeton
http://www.templetons.com/brad/copymyths.html

Special Committee on Distance Education &; Intellectual Property Issues
American Association of University Professors. Report on distance learning and copyright issues. Draft outlines on distance learning and copyright issues.
http://www.aaup.org/spccntnt.htm

Web Concern Gets Patent for Electronic Business Model
From the abuse of copyright department: The company, Priceline.com L.L.C. of Stamford, best known for allowing consumers to "name your own price" for airline tickets, said it would be issued United States patent No. 5,794,207 for both the method and the use of "buyer-driven commerce" from the Patent and Trademark Office. NY Times article by Peter H. Lewis,

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Patent's Net Result: Nothing?
More from the abuse of copyright department: DoubleClick patents the banner ad. By Chris Oakes, Wired news, September 13, 1999.
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Net Overloads US Patent Agency
Copyright mayhem. The U.S. Patent office is unable to keep up with the myriad, and possibly conflicting, net patents and trademarks. By Jennifer Sullivan, Wired News, 4 May 1999.
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Copyright spat. MercExchange claims to have patented the idea of letting customers set their own prices for air travel 16 months before Priceline received its own patent. By Brian Alcorn, Wired News, 4 February 1999.
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U.S. Patent and Trademark Office
The office which handles copyright issues for patents and trademarks. So far behind the times that as of this writing they are, and I quote, not yet equipped to handle general email correspondence.
http://www.uspto.gov/

MS IE5 XML not entirely pure, and what's this patent?
Don't you just get tired of this? Seems like Microsoft is now claiming to have invented XML, making exaggerated claims for Internet Explorer 5, adding 'Microsoft Only' tags, and slapping a copyright on the whole thing.
http://www.theregister.co.uk/990920-000015.html

Deep linking: Service or stealing?
Interesting article about the politics of deep linking and database scanning - both offshoots of the copyright and intellectual property debate. Looks at the recent court moves made by EBay and TicketMaster.
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Family Circus: They Just Don't Get It
Steve Outing argues that using legal action to shut down the Dysfunctional family Circus site won't work - even if it does violate copyright. F and P Interactive, September 22, 1999
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Copyright and Distance Education
Discussion of copyright as it applies to distance education. Dated 1995, so some recent cases are missing, but still useful. University of Idaho Engineering Outreach Program.
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Hey, here's a copyright case where the writers win! Publishers can't include work by free-lance writers in their electronic databases without the writers' permission, an appeals court ruled. San Jose mercury News (AP), September 28, 1999.
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They may be your genes - but they may be owned by a Japanese company. A biotechnology laboratory is seeking to patent a set of about 6,000 human genes, giving that country a leg up in the race to copyright the human body. By Yomiuri Shimbun, Daily Yomuri Online, September 29, 1999.
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More from the deep linking debate: Ticketmaster Online-CitySearch is set to post a statement on its Web site that argues against certain types of linking. And perhaps this link violates copyright too! By Laura Rich, The Industry Standard, October 15, 1999.
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Is the commercial distribution of a student's class notes a violation of the professor's copyright? By Carl S. Kaplan, New York Times, October 22, 1999.
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Mathieu Deflem's crusade against companies which post class notes without copyright clearance or permission.
http://www.sla.purdue.edu/people/soc/mdeflem/education.htm

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The L.A. Times and other online publications hit Free Republic - a site which posts and comments on news articles - with a copyright violation notice. This article examines the implications for commentary and investigative reporting. By Mark Gimein, Salon, November 10, 1999.
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Another staunch defender of copyright finds itself called up on the carpet. By Elinor Abreu, The Industry Standard, November 17, 1999.
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The Digital Object Identifier System
The Digital Object Identifier (DOI) is an identification system for intellectual property in the digital environment. Developed by the International DOI Foundation on behalf of the publishing industry, its goals are to provide a framework for managing intellectual content, link customers with publishers, facilitate electronic commerce, and enable automated copyright management.
http://www.doi.org/

Movie Studios Sue Web Sites for Passing DVD Copying Secrets
Can copyright protection prevent you from writing software? That's the implication if these movie studios are successful in their court action. By Sherman Friedman, Newsbytes Special to the E-Commerce Times January 17, 2000.
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Jesse Berst gets this one right - patents and copyrights on internet technology are out of control. Anchordesk, ZDNet, January 18, 2000.
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GrokSoup
This is very interesting - a tool for making and distributing your own online news zine or weblog. Careful though - you sign away your copyright to them when you register.
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The Unseen ";Other ";of Intellectual Property Law
Good article debunking the myths and attacking the legalist interpretation of copyright law, focusing on the social needs - if any - served by copyright. By TyAnna K. Herrington, Kairos, Sprint, 1998.
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©ontra
Interesting historical view of the copyright debate. The author writes,
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Nethics
Information and copyright resources for the online learning community.
http://www.inform.umd.edu/CompRes/NEThics/law/copyright/

Judge OKs deep hyperlinking
Deep linking is not a copyright violation, judge rules. AP, March 29, 2000.
http://www.usatoday.com/life/cyber/tech/cth632.htm

A Practical guide on Copyright Clearance for Multimedia Producers
Developed by Department of Canadian Heritage Interactive Multimedia Producers Association of Canada (IMPAC), this guide is intended to remedy, at least in part, any lack of knowledge of copyright provisions and other applicable rules or of associated business practices in the multimedia field.
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Mr. Clarke and his group of programmers have deliberately set themselves on a collision course with the world's copyright laws. They express the hope that the clash over copyright enforcement in cyberspace will produce a world in which all information is freely shared. By John Markoff, New York Times, May 10, 2000.
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Good overview discussing the application of copyright in a wide variety of education related areas. Excellent list of references and resources. By L. Heidi Primo and Teresa Lesage, July 7, 2000.
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Educators Praise Bill to Ease Copyright Restrictions on Online Instruction
Educators speak out in support of new U.S. legislation which would allow distance learning courses to include material royalty-free. Publishers, naturally, are opposed. By Dan Carnevale, Chronicle of Higher Education, March 14, 2001.
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Copyright and Online Learning Issues and Solutions
As teachers and their students continue to depend upon published content, sometimes the best way to access that content is to copy it. But, by law, most copying requires permission. In this slide show, a CANCOPY representative explores the copyright implications of electronic access in the online environment and suggest ways to keep that access legal. CANCOPY has administered the copying rights of creators and publishers in Canada since 1988. By Laura Davison, December 13, 2000 (Virtual School Symposium)
http://www.albertaonline.ab.ca./symposium2k/ppts/A3/index.htm

Schools Are Joining the Digital Copyright Battle
Online educators want the same rights to use book excerpts, music, and movie clips as classroom teachers have. By Nicole St. Pierre, Business week Online, April 11, 2001.
http://www.businessweek.com/bwdaily/dnflash/apr2001/nf20010411_126.htm

Preventing Content from Being Napsterized

Outstanding article with many examples and links describing in detail how content companies prevent their material from being shared over the internet and how they preserve copyright protection over those materials. An essential read for any content provider. By J.D. Lasica, The Digital Edge, May 2001.
http://www.digitaledge.org/monthly/2001_05/copyright.html

Copyright Thugs
Reaction to the RIAA's threatened lawsuit against a university professor who dared to publish a paper describing how to break some security software. Puts the RIAA's actions into perspective:
http://www.thestandard.com/article/1,1902,24208,00.html?nl=int

Proposed Convention on Jurisdiction and Foreign Judgments in Civil and Commercial Matters
Known less formally as the Hague Convention, this agreement would govern the enforcement of copyrights and patents worldwide. A lot of the coverage coming from the United States has been like this article in Wired. As the CTP document states, "Keep in mind that this treaty will apply to nearly all private litigation, including litigation over libel, slander, fraud, violations of intellectual property rights, unfair commercial practices and a zillion other things. In these areas you can be sued in foreign countries, and the judgments will be collected in the country where you reside or have assets." But the issues are deeper than that, and the question really is: how can the Americans continue to enforce their very wide and generous copyright protections worldwide without at the same time allowing other countries to enforce other protections, such as moral rights? This CTP page is an excellent resource on the Hague Convention, continually updated and comprehensive with links to reams of background documents.
http://www.cptech.org/ecom/jurisdiction/hague.html

Education as Commodity
Good overview, with good links, of the issues that arise when education becomes a commodity. Looks at copyright issues, faculty or author compensation, and rights management. By Mary Axelson, ElectronicSchool.Com
http://www.electronic-school.com/2001/06/0601ip.html

The Internet is Not Television
This is a great deconstruction of a Wired article that tries to tell us that internet users have an obligation to make online services profitable. A must-read for anybody who buys the idea that we have to charge subscriptions (or copyright fees, or other fees) in order to make online content provision (including educational content) profitable. The bottom line is: it is not up to

the consumer to fit the business model, it is up to the business to create a model that fits the consumer. By Bob Frankston, May, 2001.
http://www.frankston.com/public/Essays/WiredBroadBand.asp

The Battle to Define the Future of the Book in the Digital World
Outstanding and comprehensive essay on the future of the book in the digital age. Traces the development of alternative book technologies and discusses some of the social and political issues, such as control, copyright and distribution, raised by electronic readers and similar technologies. By Clifford Lynch, First Monday, June 7, 2001.
http://firstmonday.org/issues/issue6_6/lynch/

Lessons from Open Source: Intellectual Property and Courseware
A broad-based discussion of the attitude of universities regarding courseware and copyright. The author argues - and I agree - that universities should look at an open source model for information distribution. By Jan Newmarch, First Monday, June 7, 2001.
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The doctrine of fair use is under attack through new legislation and lawsuits. The author argues that this could undermine teaching and learning. Imagine this: Register of Copyrights Marybeth Peters told American Libraries that "pay-per-view is not bad. It may be a better policy for libraries that don't have many researchers using their resources. Subscriptions can be real costly, but pay-per-view can make them affordable." By John Palatella, University Business, June, 2001.
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Copyright Policy Branch
The Copyright Policy Branch is partially responsible for formulating and implementing an integrated Canadian copyright policy, to develop a legislative framework and to address copyright protection in Canada. The website is designed to provide news, updates, and to seek contributions from the public.
http://www.pch.gc.ca/culture/cult_ind/cpb-pdd/english.htm

Technology and Copyright Curruption
Blunt perspective on copyright, largely mirroring my own views. The author says it best: "With the onslaught of technology and promises of greater opportunity to share and communicate, copyright is now a hindrance to these ideals, serving only the moneyed interests of owners." By Joshua S. Bauchner, CNet,June 13, 2001.
http://news.cnet.com/news/0-1276-210-6269374-1.html?tag=bt_pr

News Sites Get Copyright Fever
Online newspapers have started using instant copyright clearance services - push a button, pay your fee, and you have the right to reprint the article. But the new services are demanding payment for a much wider range of reproduction than was ever demanded for print publications. No doubt many educational content providers will want to look at these services - this article provides dozens of links. But there is a warning, too: "Look for more publications to adopt online permissions systems in the coming year. And look for those systems to be widely ignored in an ever-widening cultural rift." By J.D. Lasica, Online Journalism Review, June 14, 2001.
http://ojr.usc.edu/content/story.cfm?request=597

Future E-access to the Primary Literature
As heady as it gets, this forum on the future of scientific publishing, hosted by Nature, features a number of the heavy hitters in the field. It has been running for a while now, so there's already a lot of good content; watch for future opinions on copyright, e-publishing and the nature of scientific enquiry. The forum was started April 5, 2001.
http://www.nature.com/nature/debates/e-access/

Chapter 8 ~ Knowledge

Multimedia, Teaching and Learning

What should be taught depends in part on the needs and interests of the student, in part on the discipline being covered, and in part on the general set of knowledge and skills required to function in a modern industrial society.

Posted to DEOS-L on 9 Jul 1997

Simplicity is deceiving. Practise is laden with complexities. We need to be careful about sweeping maxims...

Teaching is: ongoing, and therefore, always appropriate.

I don't agree. Teaching is not appropriate at 4:30 on a hot summer day (especially in Manitoba, where we only get three months of summer) after eight hours of instruction. Teaching, like any other activity, requires intermissions.

What should be taught is beyond our determination. We will make offerings

from which some learning will occur for us and the students.

What should be taught depends in part on the needs and interests of the student, in part on the discipline being covered, and in part on the general set of knowledge and skills required to function in a modern industrial society.

Given that a teacher usually knows more about the subject matter, in some cases it will be appropriate for a teacher to decide what is taught and for a student to follow that lead (I am reminded of the car waxing activity in The Karate Kid). Or, put another way: if we left the determination of what should be learned entirely up to students, they'd never learn fractions.

When I teach, I do not "make offerings". It is not a case of me presenting and them either accepting or rejecting. Teaching is, first and foremost, a process of communication. First, a link or connection is established. Then information is transferred, usually (but not necessarily) from teacher to student. Then a dialogue occurs as the student (attempts to) assimilate the new knowledge with previously acquired knowledge, evaluate the new knowledge, and apply the new knowledge.

The focus should be on interpersonal skills, determining truths, and basic competencies for communication and evolution to personal actualization.

Learning takes place against a backdrop of critical thinking skills. Critical thinking involves the following components: - receiving new information (i.e., reading skills, listening skills) - assimilating this information (recognizing patterns, finding similarities, drawing metaphors) - evaluating this information (testing for truth against previously accepted information, testing for applicability in different contexts) - applying this information (practise in controlled settings, practise in new situations)

Interpersonal skills, insofar as they relate to education, focus primarily on one's capacity to receive information and to engage in the dialogue necessary to assimilate, evaluate, and apply the information.

Anything beyond that is either: (a) an ethical matter, focussing on the mores and norms of conduct in society, or (b) an adaptive matter, that is, generating the skills needed to function usefully and happily in society. These items are content, that is, they consist of items of information to be taught. While it would be appropriate to teach ethics and adaptation in a social studies class, it would be a bit out of place in a mathematics class.

Determining truths is a background skill, one which forms the context for learning. While it is often treated as a subject which can be taught (as in for example logic classes) it is also reflective of an attitude which is valued in

learning as it forms part of the learning process. My own view is that you cannot teach 'determining truths' in a vacuum - truth is always context-dependent and therefore requires a medium of information in which to function.

"Evolution to personal Actualization" is an ethical principle. It is the principle which forms the base value for societies depicted in Star Trek. It is reflected in the maxim "Be All That You Can Be". As a guiding principle for life, it's a pretty good one.

But it's not one which is universally adopted. Today's maxim in our schools seems to be to teach people to be entrepreneurial. This is a different ethic (since it often requires people to sacrifice personal development in order to spend time making money).

In the final analysis, however, it is not possible to "teach an ethical principle". At best, we can teach people *about* an ethical principle (or, in an ideal environment, several ethical principles). Whether the student in question adopts the principle in question is not so much a matter of education as temperament.

Individual human needs, and maturity, will of themselves provide the parameters for the learning to occur.

This is unlikely. People can have needs, and be mature, and yet be unable to learn. For example, if they are unable to receive information, they cannot learn. A surprisingly large percentage of the population (and especially the mature population) as a great deal of difficulty accepting information. Put simply: they don't listen.

The level of maturity of the "listeners" is less relevant than the semantical ability of the "teacher." Jesus could address any group: whether they wanted to listen (learn) or not is a separate issue.

Again, this is untrue. The number of people who misinterpreted Jesus almost certainly outnumbers the number of people who 'got it'.

It's a fascinating phenomenon, probably very difficult to replicate in a controlled lab environment, but when people converse, often what they hear has nothing to do with what was said. It is very common for people to jump straight to the assimilation stage without having gone through the receiving stage.

What happens is something like this: people hear noise containing certain catch-words or phrases. They search their memory for items of previously

acquired knowledge containing the same catch-words or phrases. This knowledge is then substituted for the content of what was actually said.

For example, the lecturer says something like, "Beauty is individuality actualized to perfection". The listener hears: "beauty... individuality... perfection" Searching his memory (unconsciously, in most cases), he retrieves: "Beauty and individuality are perfection". Transposing this memory onto the new content, he now believes that the lecturer said that individuality is a form of perfection.

Theory in education today places a significant proportion of the onus for successful communication on the teacher. This is part of the reason why teachers who lecture are publicly chastised - it is thought that they are poor communicators, or more to the point, they are not taking the effort to make themselves and their material understood. But this onus is misplaced.

The onus to learn rests primarily on the student. This is because the student must engage - and consciously engage - in the four major steps of learning (receiving, assimilating, evaluating, applying). If the student is unable or unwilling to perform even one of these stages, learning is impossible, or at best, incomplete, no matter what the skill level of the educator.

[This ends my note - I leave the rest attached below for completeness.]

Cliff Layton <RSCLayton@AOL.COM07/03/97 09:25am In a message dated 97-07-02 21:27:06 EDT, Guy.Bensusan@NAU.EDU (Guy Bensusan) writes (based on a posting by J-M. Guillemette) : << WHEN IS TEACHING ? There are (hopefully) interesting related questions; I will attempt to post a few below. When is teaching appropriate? What should be taught? Should the focus be on the three R's? Should computer literacy be a required 4th R? Should evaluation of cultures re. human needs be considered in these matters? To what extent should the level of maturity of a learner be considered in allowing the learner to determine what should be learned and how it should be learned, compared to allowing the teacher (or institution, or culture) to make such determinations. How should level of maturity of a learner be determined? Cliff

Alternative Paths

We need to rethink how units of education are measured today. At the very least, we should define education in units of knowledge, not units of time.

Posted to DEOS-L 04 May 1999

John Hibbs wrote: *I bet that's true, that it does take "50% more effort". But, in the end, Dan, are you delivering 50% more knowledge?*

Well, this is the problem, isn't it? The instructor gets paid the same amount either way. The institution collects the same tuition either way. There is no incentive to adopt a system which delivers 50% more knowledge.

Institutions do not charge students on the basis of the amount of knowledge delivered. Wouldn't it be interesting if students paid tuition only *after* having passed the test or having otherwise demonstrated competence?

Institutions do not pay instructors on the basis of the amount of knowledge delivered. Again, wouldn't it be interesting if instructors were paid a commission for each successful test or assignment delivered by a student?

Now of course I am using 'test-taking' or even 'demonstrated competence' as my unit of measurement. Perhaps we could quibble here. But look at what is in place now. Seat-time. Course hours. Credits.

If institutions charged, and instructors were paid, in terms of the amount of knowledge delivered, as measured by tests or competency, then that measurement would have to be conducted by a third party. Otherwise instructors and institutions would be tempted to offer very simple tests.

I am not proposing that we move to a strictly commission-based system of compensation. But I am proposing that we need to rethink how units of education are measured today. At the very least, we should define education in units of knowledge, not units of time.

The Cyberspace Charter of Rights

Before people will invest their time, energy and resources in Cyberspace, law must extend into Cyberspace. People must be secure in the knowledge that their rights and freedoms will be respected, that their personal liberties will not of a sudden be infringed, that their personal and private information shall not be compromised.

Posted on NewsTrolls 22 July 1999

It is easy and even fun to sit back and carp about Ziff-Davis's new standard for internet commerce, or about Third Voice's data collection efforts. Moreover, it is, it seems, an endless task as new initiatives, products and services populate the world wide web.

The last twelve months have been turbulent, not so much because of efforts to censor the web or violate personal property (though these continue, as we see with the proposed internet blockade of Serbia, or the new regulations governing content in Australia), but because of the commercialization of the internet and the commodification of information.

Now don't get me wrong: it is reasonable and natural that business and commerce will be conducted on the internet, just as in the case of any meeting place or commons, and their interest and endeavours are welcomed with open arms. Much that is good about the internet has also been commercial: the Yahoo indices and chat rooms, Geocities home pages, ICQ, and even the Microsoft Gaming Center.

But increased population, trade and commerce have made the internet a more complex place to govern. And make no mistake about it, the internet *is* being governed, though that said, this government is constituted of an anarchy of national governments, international organizations, standards bodies, corporate policies and procedures, and terms of service regulations.

Such anarchy has spread uncertainty. The citizens of the WELL or homesteaders of Geocities know what I mean, as their rights and freedoms shift and stutter through corporate takeovers and new terms of service. What was once theirs, Geocities homesteaders are told, now belongs to Yahoo. And though that corporate entity recanted, there seems no natural limit on the ebb and flow of internet policies and politics.

A free and democratic society is preferred because it is stable. Our democratic rights and personal freedoms were created in the first instance to protect citizens from the whims of policy The maintenance of a free and democratic society is the first duty and responsibility of its citizens. Or in the words of Junius, "The subject who is truly loyal to the Chief Magistrate will neither advise nor submit to arbitrary measures."

Before people will invest their time, energy and resources in Cyberspace, law must extend into Cyberspace. People must be secure in the knowledge that their rights and freedoms will be respected, that their personal liberties will not of a sudden be infringed, that their personal and private information shall not be compromised. No mass movement of people, money or enterprise will flow into this new territory without such security, and if Cyberspace has been populated by those who may make their own laws, so much the good for them, but now the time has come for laws which apply to all, equally, without prejudice.

Hence, below, I have drafted a document titled *The Cyberspace Charter of Rights* (the link will take you to an uncommented version):

The Cyberspace Charter of Rights

Preamble
Electronic technology in the late twentieth century has given rise to a new environment, commonly known as *Cyberspace*, in which the citizens of the world may freely interact and communicate with each other.

As individuals, corporations and nations inhabit cyberspace, new laws, protocols and practises have demonstrated a potential for new limitations on the rights and liberties enjoyed by free citizens around the world.

It is reasonable and prudent, therefore, to declare those rights we consider essential to the maintenance of a free and open society in Cyberspace.

1. Access
   Where *access* is defined as the capacity to send and receive communications through electronic means, including the internet, and where *persons* are defined as citizens of any nation, state or territory,

    1. All persons have the right to access electronic communications.

    2. All persons may send and receive communications from any point on the network.

2. Freedom of Speech
   Where *ideas and beliefs* are the words, images, or other information created by a particular person,

    1. CyberCitizens may express any idea or belief without limitation.

    2. CyberCitizens may transmit their ideas or beliefs to any person who is willing to receive them.

3. Personal Privacy
   Where *personal information* is information regarding the

name, gender, address, nationality, or other information associated with a particular person,

1. CyberCitizens own their personal information.

2. CyberCitizens may at any time regulate the use of their personal information by other persons or parties.

4. Security of Communication
Where *communications* is the transfer of ideas and beliefs from one place to another,

1. CyberCitizens have the right to secure communication, that is, communication which will not be intercepted, redirected, or otherwise diverted or duplicated.

2. CyberCitizens may communicate in the language of their choice. This includes the right to create a language (for example, by encryption) which cannot be understood by any other party.

3. CyberCitizens may communicate with each other under the identity of their choice, including self-designated handles or pseudonyms, or anonymously.

5. Intellectual Property
Where *intellectual property* is any idea or belief created by a particular person,

1. CyberCitizens own their own intellectual property.

2. CyberCitizens may at any time regulate the use of their intellectual property by other persons or parties.

6. Reference
Where *Reference* is the *mention* of an idea or belief, as in the case of citations, quotations, or links,

1. CyberCitizens may *refer* to any other person's

intellectual property.

2. CyberCitizens may express their own ideas or beliefs about any other person's intellectual property.

7. Quiet Enjoyment
Where *quiet enjoyment* is the use of electronic communications without interruption or interference,

1. CyberCitizens have the right to quiet enjoyment of their own communications system, that is, they shall not be subject to arbitrary search and seizure of their computers or other communications equipment.

2. CyberCitizens may regulate their own communications, that is, they have the right to refuse unsolicited or unwanted communications.

Having set out the document, let me take some time to discuss and elaborate upon some of the stipulations:

- Access

Access has to be the first and primary right of CyberCitizens. I have tried to define this generally, as the nature and shape of online communications is likely to change in the future. Thus access refers to the electronic sphere generally, and is not restricted to an existing entity such as the internet.

I have also defined access as a right of *citizens*, with two thoughts in mind. First, I wanted to convey the idea that the rights and liberties which should be defined in Cyberspace are an extension of those which exist for the citizens of democratic nations; just as a person should have freedom of speech or freedom of the press in a democratic society, so also should those freedoms extend to Cyberspace.

Second, I wanted to convey the idea that these rights and freedoms are not universal. We do not convey them to dogs or other animals, we do not convey them (automatically) to children, and that there are cases where citizenship, or at least the rights of citizenship, may be legitimately revoked, just as we would revoke the freedoms of persons convicted under the Criminal Code.

The principle which stipulates that all citizens shall have the right to access is the first and most fundamental freedom of Cyberspace; it defines Cyberspace as an *open* society. There are no immigration restrictions or quotas, nor are there any barriers to membership on the basis of race, nationality, gender, or any other personal characteristic.

The right to access may be construed - and is even to this day construed in some territories - as a *positive* right, that is, as right to have a certain service provided. Nations like Canada have stated and begun to implement as a national policy the idea that all citizens, regardless of means or income, shall have the capacity to access the internet; this policy is being implemented through such programs as the Community Access Project (CAP), Canada's Schoolnet, and so on.

I applaud and support such projects, but not all nations would interpret this provision as a positive right - in the United States, for example, access to the internet is likely to depend on financial means. In environments such as this, the right to access becomes somewhat equivalent to the right to ride the bus, or the right to buy a home - those who have the means may do so, and provided they have the means, no restriction shall be placed on their doing so.

Either policy is consistent with the Charter of Internet Rights; what is essential, is that the means of access, are open equally to everyone.

The second provision of the access clause is the online equivalent to freedom of mobility. Once a person has access the internet, then no policy should prohibit that person from accessing any point on the internet. Thus a person from the United States could access a Cuban website, or a person from China could access a Taiwanese website.

This provision is intended to address both political measures and technological measures. Politically, it amounts to the urging that no *law* out to hinder access. Technologically, it amounts to the urging that no *barriers* be placed in the way of access. The shut-down of internet to Serbia by shutting down satellite services, for example, would violate the latter provision.

- Freedom of Speech

Freedom of speech has been a much-discussed issue on the internet. CyberCitizens first rose to the defence of this freedom in the 1996 web black-out: the background colour of a significant number of web pages (my own included) was changed to the colour black on February 8 of that year. The protests continued with the 24 Hours of Freedom Web Ring and the

Blue Ribbon campaign. The primary object of these protests - the Communications Decency Act - was defeated, but the move to restrict freedom of speech did not abate with that setback.

But freedom of speech has been recognized for centuries as a fundamental principle of a free and democratic society; indeed, it is arguable that without freedom of speech, a society is essentially undemocratic, no matter how many other freedoms are granted. In a similar fashion, were the content of online communications subject to censure and prohibition, the online environment would cease to be a free society.

Freedom of speech is even more important in a global environment because there are no international standards or agreement governing what constitutes acceptable speech. As I said in my 24 Hours of Democracy essay, some people (such as myself) would want to ban subversive advertising and programming, as offered by (say) Walt Disney or McDonalds, while others would choose to ban violent imagery, while others would ban sex (or even discussions of safe sex), while others would want to see the Pork Marketing Council website shut down.

The essence of censorship is that it is one person telling *another* person what he or she may read or write; and in all cases of censorship it is the values of the *first* person - however reasonable or rational they may seem - which prevail. The censor, therefore, becomes the arbiter of values. But in a global society, there can be no arbiter of values, because there is no common value system, and hence, any arbitration of values becomes an instrument of repression. This means we *all* must live with the existence of content which is objectionable, for it is the only way in which we *all* may be equal members of the online society.

The right to express these ideas extends to the right to transmit them; this is why there is a second provision under 'Freedom of Expression'. The second provision is the online equivalent of freedom of the press; it allows for ideas to be communicated to a mass audience. The stipulation here is that members of that mass audience must *want* to hear the message being transmitted; freedom of expression is not a right which allows a person to force his or her views on an unwilling audience, or to drown out with static or noise the attempts of other people to communicate with each other.

In the end, these two provisions boil down to the assertion that no *third* person shall abridge the communications of two people, where those two people have freely entered into this exchange.

- Personal Privacy

In the pre-electronic age, personal privacy meant being able to keep your personal proclivities in the closet, and being sure that nobody was peering through your bedroom drapes. It did not necessarily protect the gathering and use of people's names, addresses, phone numbers, or other personal data, mainly because not much could be done with such collections of information.

In the electronic age, however, the potential for the misuse of personal information is large, from the theft of credit card data, to the malicious assumption of another's' identity. Additionally, because personal information may be amassed in databases, it has become a commodity, an item of value, for which individuals and corporations are willing to pay considerable sums of money.

The production and origin of personal information in every case lies with the person themselves. A person does not assume an address unless he moves there, does not have a name unless she consents to be recognized by it, does not have a shoe size unless he has feet. Without the person, there is no personal information; therefore, the ownership of personal information must lie in the domain of the person who created it.

Where the ownership of one's personal information impacts on the practises of Cyberspace is, first, in the collection of personal information, and second, in the use of personal information. The principles in the Cyberspace Charter of Rights stipulate that one cannot, first, collect personal information without that person's consent, and second, use personal information without that person's consent.

- Security of Communication

Security of communication is the flip side of freedom of speech. While the latter the right of a person to be heard by all he or she want to hear, the former is the right of a person to be heard by *only* those he or she wants to hear.

Security of communication is the online equivalent to freedom of assembly. It is the right of a person to meet in public or private with other persons, without hindrance or disturbance. In pre-electronic times, the right to assembly ensured privacy, because one could meet in a back room; online, however, there is no such thing as a back room, and to a certain degree, all communications pass through the public sphere.

Thus there needs to be in an online environment a particular set of protections securing a person's right to assemble with a particular set of others. These provisions break down into three major categories:

First, the right to secure communication, that is, communication which will not be intercepted, redirected, or otherwise diverted or duplicated. This is the embodiment of the idea that private conversations should remain private; it is the online equivalent of an anti-bugging or anti-eavesdropping provision.

The second point - communicating in a language of one's choice - is intended to address the issue of cryptography. It is essentially an assertion of the right of a person to use whatever encryption technology he or she deems necessary. I have couched it in terms of language, first, because encryptions *are* variant languages, and second, to convey the idea that a person has a right to determine the *style,* as well as the content, of their speech.

But this second point also addresses a wider set of rights: the right to the use of one's national tongue, for example, or the right to define alternative communications protocols. It embodies the essence of communication as a freely chosen set of protocols between sender and receiver; it enshrines the idea that there shall be no determination of how communications are conducted over the internet except by the free agreement of those people doing the communicating, and therefore ensures that there are no barriers, by language or technology, between those people.

The third right guarantees a person the right to choose his or her identity, and indeed, whether to have an identity at all. This is a new right; in the physical world it is not possible to abandon one's body, and therefore, one's physical identity, but in cyberspace, identities may be worn as easily as a new suit or a pair of shoes.

This right follows naturally from the right to freedom of speech, and also, from the idea that one owns ones personal information. It is tantamount to the freedom to *create* one's personal information, to the idea that you - and nobody else - has the right to determine who you are. The right to anonymous communication is roughly equivalently to the right to freedom of the press: it is the right that protects the poster or pamphleteer.

- Intellectual Property

The protections for intellectual property have a two-fold purpose: first, it ensures that something *created* by a person is *owned* by a person, and therefore, cannot be appropriated by some third party. This protects the people who send email messages, post to discussion boards, or publish web pages: they have the assurance that what they create, remains their own.

This does not mean that these rights cannot be transferred; when Jon Katz writes a column for SlashDot, he may freely assign all copyright to that company. But what it *does* mean is that SlashDot cannot, without prior

notice, assume sole ownership or copyright of messages posted to their online discussion boards; or that if a new idea or concept is presented in such a public forum, that a third person cannot run to the trademark office and relieve the author of ownership over that idea.

Placing the ownership of ideas and beliefs in the hands of their creator also serves to protect the freedom of cyberspace by removing from service providers responsibility over that content. Just as the city that builds a road is not responsible for what drivers do on that road, and just as the telephone company is not responsible for the conversations people have, so also a service provider is not responsible for the content of a user's email or web site.

Keeping ownership and responsibility in the hands of the creator is essential to the maintenance of a free Cyberspace. If a third party becomes accountable for the ideas and opinions of a first party, that that third party is obligated to violate the first person's privacy, to monitor his email communications and web sites, and sometimes, to act as censor over the contents of those communications.

- Reference

Inherent in the idea of the freedom of speech is the idea of fair comment or criticism of another person's ideas. This right manifests itself differently in Cyberspace because pointing works differently in an online environment and is therefore not covered explicitly under freedom of speech.

The first and essential principle of reference is the right to refer. By the creation of a piece of intellectual property, one does not acquire the right to govern all discussion *about* that property. Thus people may send emails or establish websites *about* Star Trek, or they may express opinions for or against a politician's platform, and indeed, may parody or satire another work.

The restriction on this right is that imposed by the intellectual property provision: a person may not take another person's intellectual property and *use* it without permission. Thus, a web site may *talk* about Star Trek, but it cannot purport to *be* Star Trek; a web site may criticize Coca Cola, but it cannot use images or artwork produced *by* Coca Cola.

There is to be sure a fuzzy line here: Coca Cola may own its own logo, but the use of the logo could in some cases be a reference to that company, and not a use of their ideas. Moreover, it is not clear to what degree a company may control variants on their words or artwork; and in some cases a corporation may use some word or artwork over which it should claim no

ownership at all (as for example when Bell Canada tried to trademark the term, "The Net").

But in practise the line is relatively clear: it is crossed when a reasonable person might come to believe that the work in question is the work of the person or company to which it refers - thus G.W. Bush has a legitimate complaint if readers of www.gwbush.com would believe that this parody site was Bush's real home page.

Another aspect of reference falls under the area of *linking* - companies and individuals have from time to time attempted to prevent persons from creating links to their sites. But a link is nothing more than a way of pointing: and just as my pointing at Bill Clinton in no way implies that I endorse him (or that he endorses me), so also the posting of a link carries no such connotations.

- Quiet Enjoyment

The final provision, that of quiet enjoyment, points to a person's right to use the internet without interference from others.

The first and most obvious target of the quiet enjoyment provision is unwanted email (or 'spam'). This provision stipulates essentially that users of the internet have the right to be spam-free. The offline equivalent of the anti-spam provision is the security of one's property: just as no person has the right to make harassing phone calls, enter one's place of residence, or incur unauthorized expenses, so also senders of email cannot target unwilling recipients, place unwanted data into their computers, nor make them pay for the download.

The 'quiet enjoyment' provision expresses the sanctity of one's computer; this is seen by the second provision, which prohibits arbitrary search and seizure. On the internet, a person's computer is his or her home; there should be a reasonable expectation of security and privacy.

This provision is intended to cover both physical search and seizure, as when the Feds come to your door and demand that you dump your hard drive, and also 'soft' search and seizure, as would be performed by software agents, viruses, or other online intrusions.

References and Resources

American Civil Liberties Union

Americans for Computer Privacy

Amnesty International Online

Center for Democracy and Technology

CDT's Communications Decency Act Issues Page

Citizens' Internet Empowerment Coalition

Computer Privacy Digest

Computer Underground Digest

Computer Professionals for Social Responsibility

CyberLaw

CyberRights

Cybotage (In German)

Daysite, by Paul Wagenaer

EFF Blue Ribbon Campaign

EFF CyberRights Defense Fund

EFF 'Know Your CyberRights' Sweepstakes

Encryption Policy Resource Page

Families Against Internet Censorship

Freedom Forum

Global Internet Liberty Campaign

John Gilmore's Home Page

Internet Advertising/Marketing Law Report

Internet Declaration of Independence

Internet Free Expression Alliance

Internet Privacy Coalition

MCS-Special-Support Human Rights

NetAction

Online Magna Charta Network

PeaceFire, Youth Alliance Against Internet Censorship

Privacy Rights Clearinghouse

Promote Responsible New Commerce: Fight Spam

Regulatory and Legal Resources on the Internet

Voters' Telecommunications Watch

VTW Centre for Internet Education

VTW Issues Page Web Blackout Commemorative

Exploring New Directions in Online Learning

Complete notes from a full day pre-conference at NAWeb 2000; major topics include knowledge management, learning objects and sectoral communities

Presented to NAWeb 2000
Preconference Session
October 14, 2000
This page is a brief outline. Links to the full presentation in HTML and MS Word format follow below.

Overview - Participants in this session will explore emerging issues, trends and technologies that will shape online learning through the next decade. This all day seminar will focus on three major areas of interest and how they interact:

Knowledge Management - Industries and corporations are in a race to become knowledge-based organizations. To this end they are redefining our ideas of what counts as knowledge, how it is produced, how it is stored, and how it is distributed.

We will look at how database driven just-in-time knowledge solutions are being applied to all aspects of corporate process and how these forcing

corporate trainers to re-invent staff development and corporate training.

Learning Objects - Learning organizations are reshaping online learning with a redefinition of the core elements of instructional design. Learning objects are reusable and interoperable units of learning content. New standards, such as IMS and SCORM, are defining how online learning materials are authored, distributed, and applied.

We will examine the concept of learning objects from concept to implementation with an eye to how they will affect our own practice.

Sectoral Communities - Online communications have facilitated the rise of industry-wide sectoral communities that act as a pool of information and resources and serve as the context for knowledge creation and online learning.

We will look at online communications technologies new and old, examine lessons learning in community formation, and consider how the rise of sector specific communities will impact learning in those areas.

HTML version
MS Word version

Causes of Conflict

What happens when people with too little knowledge - and the social instincts of a stone - try their hand at foreign policy.

October 19, 2000

The causes of the Mideast conflict do not lay far beneath the surface in any nation, and as we look from afar in shock and horror at the events transpiring in Jerusalem and the West Bank, we should recognize that the roots of similar devastation lurk in the hearts and minds of people in our own towns and cities.

As a case in point, I offer an analysis of one technology writer's opinion of the MidEast crisis, published by Scott McCollum in OS Opinion.

McCollum's major argument could be summed with the following assertion: Palestinian aggression is a danger to the Israeli high tech sector. Consequently, we should clearly align ourselves with Israel, address Palestinian violence, and give the entire sector some breathing room.

There may be some good reasons to support Israel's position, but the defence of its high tech sector is not one of them. Israel's high tech sector will have to stand or fall on the wider issues of the day, issues which affect all Israeli and Palestinian industry and commerce. And it is in these wider issues that McCollum's short sighted vision is a source of genuine concern.

Let's look at how he introduces his subject:

> Let's not play around on this subject anymore. Israel is on the brink of war. Palestinian leader Yasser Arafat has bullied Israeli leader Ehud Barak into signing away half of Jerusalem at Camp David and then stormed out of the negotiations saying that it wasn't enough.

We can see pretty clearly where McCollum is coming from through his use of descriptive language - "bullied", and "stormed out of" - and thus abandon early any pretence that this will be a balanced report. Well, it is an opinion column. But even opinion columns need to get their facts straight.

First, the Palestinians were not (and are still not) in a position to "bully" Israel into anything. Making Israel look like the weak party in this dispute is a paradigm case of misrepresentation.

Second, Barak never signed away half of Jerusalem. In fact, the resolution of this particular issue is the major sticking point. The Palestinians argue that they should control part of Jerusalem - specifically, East Jerusalem - as their capital. The Israelis are unwilling to cede any part of the city.

And third, there is no evidence that Arafat "stormed out" of the meeting, nor even that it was he who terminated negotiations. Neither side was able to agree, and the actions and words of both sides brought negotiations to a termination.

McCollum continues,

> America, normally pro-Israel, has decided to play devil's advocate and side with the PLO on many of their issues.

The United States has been traditionally an Israeli ally, and substantial American funding and resources have enabled the Israelis to develop the most significant armed force in the region. To a great extent, this support continues. To suggest that American reluctance to side with the Israelis on all points is somehow playing "devil's advocate" is misleading. The United States has genuine concerns about some Israeli policies and is not merely

posing Palestinian options for the sake of argument.

The Palestinians have a fundamentally sound case and the United States has come to recognize the legitimacy of some of their arguments: specifically, that the Palestinians also have a historical claim in the region, that the Palestinians should enjoy representative government, and that the Palestinians have a right to exist free from persecution. There really should be no dispute on these points, and the Oslo accord is a recognition on all sides that these three points apply to every person in the region, Israeli or Palestinian.

Or more to the point: saying that a people should enjoy fundamental human rights is hardly playing "devil's advocate."

McCollum continues,

> To make matters worse, Israeli soldiers used deadly force a week or two later on Muslim civilian protesters (one was a little boy who died in his father's arms) on camera for the world to see. Both sides have their valid arguments, but sub-machine gun bullets in a little kid make a very good case against Israel.

The father and son involved in this shooting were not in fact protesters; they were bystanders. And the deadly force was applied not to these two people but to large groups of Palestinians - as I write the death toll is up to 104 Palestinians killed and (I believe) four Israelis.

The reason why "sub-machine gun bullets in a little kid make a very good case against Israel" is that sub-machine gun bullets in a little kid *is* very good case against Israel; in most nations of the world opening fire on protesters - even rock-throwing protesters - is considered an excessive response, and the unprovoked shooting of civilians is considered a war crime.

This is not to acquit the Palestinians in their role in the conflict; the mobbing and murder of two captured Israeli soldiers is equally repugnant and equally a war crime.

The world, I think, is reacting not so much to the suggestion that one side or the other is in the right here as it is to the outright expressions of brutality which have characterized the conflict for many years now.

McCollum continues,

> I can't see the two of them getting out of this without a big, bloody fight. The loss of human life is horrible in any conflict, but what about the toll on the thriving tech sector in Israel and its effect on the United States?

Despite the myopic vision that this paragraph displays, McCollum is actually right to consider this issue, and even to try to look at the issue outside the context of the human losses. Looking at the world-wide impact of the conflict shows clearly why we should have an interest, and why the roles played by U.N. Secretary General Kofi Annan and U.S. President Bill Clinton are important.

Because if the conflict spreads and actually impacts the Israeli technology sector (beyond merely affecting stock prices) there *will* be a ripple effect, just as a Chinese invasion of Taiwan (which produces many of the world's microchips) would also have a worldwide impact.

McCollum describes the Israeli sector in some detail, a description I won't comment on except to agree with his assessment of its size and importance. It is in his discussion of the impact of the conflict on the sector where we again run into dispute. We pick up his article there:

> I'm no stock expert or anything, but all the Israeli companies I mentioned that are publicly traded all have jagged red lines going straight down left-to-right on their charts. I don't think that these guys can blame it on sluggish European sales the way Intel, 3dfx and Dell have tried to. These guys are in trouble because there are 50 rock throwing Palestinian teenagers in their parking lots twelve hours a day. I'll bet they wish they had Intel's problems in Europe rather than worrying about getting their office window shot out with an AK-47 and a Molotov cocktail tossed on their desk.

It is likely that the ongoing conflict has had an effect on the stock market - investors get jittery at any signs of instability, and the current crisis certainly fits the bill.

However, Israeli technology companies are not located in the West Bank or Gaza, where the conflicts have been occurring. Palestinians are not throwing rocks in their parking lots because they can't get *close* to their parking lots. The battle between Israelis and Palestinians is taking place almost exclusively in what we would consider to be Palestinian regions of the country.

For similar regions, no Israeli technology company has any real fear of being

assaulted by AK-47s or Molotov cocktails.

The violence is taking a very different toll on the Israelis than on the Palestinians. Actual loss of life or destruction of property in Israel proper is minimal and occurs mostly on the northern border with Lebanon. But Israeli youth face conscription and likely engagement in dangerous wars, their society is split between the need for peace and the need for security, and increasingly, they are being shunned by world opinion because of their strong response to Palestinian protests.

McCollum continues,

> Instability in Israel is attributable to the Palestinians but also to our political bungles in dealing with both sides.

Such a statement scarcely deserves comment. In this conflict the two sides share the blame for the instability. It is arguable, in fact, that the current violence was provoked by Israel - first, by the stunningly insensitive visit by Ariel Sharon to an Islamic holy site, and second by the Israeli troops' use of live ammunition (including the use of snipers and helicopter strafing) against rock-throwing protesters.

Again - these observations do not acquit the Palestinians of any blame, but it is important to realize that the Palestinians are not the sole aggressors here.

But now McCollum starts lobbing grenades...

> I'd like to say that we should get behind our buddies in Israel because they are just about our only allies in that area of the world...

McCollum is probably not aware of Turkey, a NATO member since the early days of the cold war and just down the coast from Israel. Or of Saudi Arabia, which actually shares a short border with Israel and whose support was instrumental in the Gulf War. Or even the Egypt of Hosni Mubarak, a far cry from the pro-Soviet Egypt of General Nasser.

> Since 1994, we've screwed Israel over by pushing for peace between the Israelis and Palestinians no matter what the cost. Israel has become almost as mistrustful of America as the Palestinians are because of our insistence on concessions to Arafat to keep the peace.

It seems clear from this paragraph that McCollum is as ignorant of American policy as it is of Middle Eastern affairs. Israel continues to have a special

relationship with the United States, continues to receive aid and trade incentives, continues to receive military support (including, most recently, an urgent request for rubber bullets.

Yes, the Unites States has been pushing for concessions - though hardly total capitulation. The Americans have joined the rest of the world in agreeing that the continued repression and violation of an entire population cannot continue. It has tried to be fair minded in recent talks, rather than to act as one side's cheering section. It is the most responsible behaviour exhibited by the United States in some time. And it is taken at considerable risk by its leaders who know that morons like McCollum are standing on the sidelines wringing their hands.

> If we side with the Palestinians, you'll see the NASDAQ go crashing down even harder because there's so many Israeli interests that are tied to American economic well being. If we side with Israel, the Arab world will retaliate against us by cutting oil exports and maybe even some sporadic terrorism. Of course, that means that the stock market still crashes, but it'll be the Dow Jones rather than NASDAQ.

McCollum is obviously unaware that the Arab nations have been cautious - even hesitant - in their support for the Palestinians in the current conflict. Americans continue to be a target in the region - as recent events in Yemen demonstrate - but they are not the target (nor likely to be) of widespread Arab hatred. McCollum needs to resist the temptation to associate the actions of some extremist groups with the beliefs of all Arabs.

And of course, McCollum should consider the possible outcomes of a third course - ironically, the course which the American government is *actually* taking: that of neutral broker. To be sure, there is still a large possibility that American mediation will fail, however, such an approach at least allows Americans to have the best of both worlds: some semblance of friendship with both sides in a bitter dispute.

A lot of harm is done - and no good - but suggesting that the only option for the United States is to take someone's side in this. Higher values should prevail.

> Technology has solved so many problems in the world, but the Palestinians aren't complaining about a digital divide. These guys are fighting for a place to live and could care less about free dial-up access and 50 megs of web space.

Yes they are, indirectly. Palestinians - especially those living in Israel proper

- have watched a world class industrial society grow up around them, knowing that by law they are unable to participate in either its growth or its benefits. Some of the first things done in Palestinian Gaza included investments in education and technology. Representing them as third-world sheep herders does McCollum no credit.

> I know the Palestinians think that they deserve that land, but Israel has fought harder and for longer than they have for the tiny parcel of land they live on right now.

Again we have another irresponsible statement. In fact, the durations of the modern struggle are now about equal: the Israelis fought for freedom and independence from early in the 20th century until 1948, and the Palestinians have been fighting for it ever since. Indeed, since the Palestinians and Israeli have been fighting *each other* through this time, it is absurd to say that one of them has been fighting *longer*.

McCollum, though, is probably alluding to the Israeli's historical claim to the region, one which dates back to the Biblical kingdom founded by Joshua. If so, McCollum should return to his Bible and re-read *Exodus*, especially the chapters which describe the Israeli's conquest through force of ancient Israel. The Israeli's claim is no more ancient, and no more just, than any of the prior and subsequent peoples of the region who fought, murdered and plundered their way into possession.

> To expect the Israelis to just hand it over is madness...

Nobody is asking the Israeli's to give up their entire nation - or even to return to the original partition declared by the United Nations in 1948. But most nations recognize that Israeli sovereignty should not extend beyond the boundaries defined by the 1967 war, boundaries which divide the city of Jerusalem into an Arab sector and an Israeli sector.

> and I don't get why Arafat doesn't realize that the entire Palestinian nation could come live in a corner of Utah and not be bothered. Hey, it worked for the Mormons and when was the last time you saw a kid with a black tie and white button up shirt on a bicycle screaming for liberation and shooting the cops with a wrist rocket?

Although McCollum later claims that he was just joking, he here reveals that (a) he is ignorant of history, and (b) he is a generalized bigot.

His ignorance of history not only applies to his misunderstandings of the history of Mormonism - followers of which were not *put* anywhere - but also

of Israelis - who rejected a similar solution, one proposing that they settle in Uganda.

The conflict in the Middle East has an impact on all of us. It affects us economically and technologically because Israel is a fully engaged industrial nation. But more deeply, it affects us because in this region the ballot has been replaced by the bullet, common sense by belligerence, peaceful development with destructive warfare.

We should work not only to find a resolution satisfying all people in the region, we should also look to understand the narrow minded, ignorant and bigoted attitudes and beliefs which foster the development of such powder kegs in the first place.

McCollum's column displays such attitudes, and though his column holds no national import, will sway no opinions, it still must be unearthed and shown for all to see, so we can in more enlightened times appreciate an uninformed and destructive point of view in the full glare of daylight.

Reader Comments:

S2000 - Knowledge

Ken Stratford, Commissioner for the Greater Victoria Economic Development Corporation, manages and promotes a website called CITISmart - CITI stands for Community Information Technology Institute. It's a project similar to MuniMall, but with some important differences.

Ken Stratford, Commissioner for the Greater Victoria Economic Development Corporation, manages and promotes a website called CITISmart (http://www.citismart.net/) – CITI stands for Community Information Technology Institute. It's a project similar to MuniMall, but with some important differences. I'll comment on that later.

Stratford had as his topic the application of knowledge management in smart communities, and he has an intuitive understanding of the concept. Knowledge management, to Stratford, may be likened to grabbing chunks of information from other sources and using them to develop an argument.

Of course, there are forms of human reason other than argument (and to be precise, three other forms of reason: explanation, description, and definition), but the concept applies equally well elsewhere. Need a taxonomy? Grabs chunks of existing taxonomy from elsewhere and create your own (this ensures that *your* taxonomy will be interoperable with the

others).

Knowledge management techniques, asserts Stratford, will be used in smart communities. This means that – to Stratford – the development of smart communities will resemble architecture and engineering much more than it does, say, art and design.

He didn't say this, but Stratford is probably thinking of the information-theoretic approach to knowledge management and database design, concepts covered by, say, Jan Harrington in *Relational Database Design*. He is probably also thinking of the principles of RAD – Rapid Application Design – as applied in the computer software industry. And so far as that goes, he is right to do so. So far as that goes.

Stratford's CITI project is built according to those principles. The CITI project is intended to be a resource for municipal administrators and civic officials. Stratford identified a four-step development process:

1. Build project files around 'best (and worst) practices)

2. Obtain 'citizen information' through, say, needs analysis

3. Identify 'communities of practice'

    a. "harvest" the knowledge of the community

    b. adopt that knowledge, adapt it to your needs, innovate, and share

    c. For example: Industry Canada's Information Resource Exchange

4. Adopt what KPMG calls a "rapid release" strategy – release a small but impressive body of knowledge bank and make a commitment to grow and develop from that base

CITI may contain an impressive collection of resources; Stratford asserts that he is aggressively collecting information. People at Smart 2000, for example, are being asked to contribute to CITISmart.

CITI may contain an impressive collection of information, but I don't know. You have to be a member to view this information. Membership (sold at the institutional level) costs $2000.

You can see Stratford's point of view. CITISmart costs money to maintain

and expand. But then again, it is possible to build comprehensive sites like, say, Jurist (http://jurist.law.pitt.edu/) and make it available to all. It depends on your funding model.

But my question is this: of what benefit is it to anyone to gather all this information, store it in one place, and to lock the door? What incentive, what motivation is there for people to contribute? Stratford argues that the relinquishing of information should be based on selfish interests. Yet there is no upside to providing – for free – a valuable resource to Stratford's copyright domain.

The fact is this: information about *any* domain is distributed throughout that domain. Information about municipal governance, for example, is distributed throughout the 400 odd municipalities in Alberta, throughout its universities and colleges, throughout similar sites around the world. A centralized collections system will not work. Too much information is missed; too few people get to see it.

The Human Genome

The decoding of the human genome is one of humanity's greatest achievements, a crown jewel in the history of knowledge, an accomplishment so full of promise and potential it is impossible at this time even to grasp all of the implications.

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In a riveting lecture, Dr. Lap-Chee Tsui of the Hospital for Sick Children described the research process and unravelled for the audience the many layers of the human genome.

He had two major messages:

1. The human genome is complex and unbelievably difficult to decode, and

2. The human genome project was – and could only have been – an international effort requiring the cooperation of teams of scientists around the world

He didn't say it, but I will: such an accomplishment is only possible in an

environment of global communication and information sharing. Such an accomplishment can only be accomplished by a society as a whole. It must be one of those "social visions" described by d'Aquino and Stanley.

And he didn't say *this*, but I will: who owns the human genome?

This is not an idle question; large segments of the human genome project were accomplished by private companies who feel they have a proprietary interest in the outcome of the research. But what government will stand and say that the secrets of life itself belong to a particular individual or business?

On the other hand, Harvard was allowed to patent a mouse.

This question becomes more difficult when we look at actually implementing the knowledge from the human genome project. Consider, for example, the Physiome Project, the objectives of which are to add physical functionality to the genome by modeling and adding logic to observed physiological processes.

For example, Oxford professor Dennis Noble described how he modeled a human heart from the cellular level. When looked at from the genome level, the biological system is like a self-assembling computer. Understand how the computer works and you can understand – at any level of understanding – how different drugs interact with the body, how different character traits develop, and more.

This produces enormous savings in health care and physiological research – *if* the results are shared.

It is one thing to say blithely that we must foster a gift culture when it comes to giving dollars to the homeless; it is quite another to say the same thing when it comes to giving the secrets of human physiology to society at large.

But… what's good for the goose…

And remember: the people who benefit from information sharing will control the political processes that could bring it about. Though the transition will probably not proceed smoothly; we could easily envision a 'Seattle' over the issue of a genome monopoly. Or – more likely – long legal battles over a DNA-Napster in which the secrets of genetic manipulation are shared world-wide like a piece of music or the latest shareware software.

And once people are able to manipulate genetic material with their home PCs (and have no doubt about it, they *will* have this capacity), the issues of

genetic copyright take on a whole new meaning.

The lesson here is that information comes in many forms, and if the mantra that information will be shared is true in one place, it is true everywhere.

Moreover, not only do we know that this is the case, we know *how* is going to be accomplished.

Tsui, Noble and other eminent academics in the field are working against what is often called the "Tower of Babel" problem: many different vocabularies are being used to express the same concepts. The University of Alberta might have one set of terminology, Oxford another and Stanford yet another.

But because of the need for global collaboration and data sharing, they are working toward a common terminology. And because large projects – like the human genome project – require work from people in many disciplines, it is important that the terminologies be machine readable.

Noble's simulations, for example, require thousands of differential equations to be solved every second. In order to implement this in a computer, he would have to become an expert computer programmer. But instead, using a machine-readable language, he works in an environment which *simulates* these mathematical computations. What this means is that he and a computer programmer share the same language for expressing mathematical calculations. The programmer worries about how the computer will actually compute the value, and Noble worries about which calculations he wants to use at a certain time.

Thus, the Human Genome project and the Physiome project are moving toward a series of machine readable languages: MathML, CellML, AnatML, BSML, GEML, SBML and more (see http://www.cellml.org). These mark-up languages are all flavours of XML and all interact with each other.

A similar development is occurring in other fields. Online learning, for example, has the Dublin Core, IMS and SCORM, all vocabularies and protocols expressed in XML. Newspaper publishers have NewsML and RSS. The same process will in time spread to all areas of endeavour, including government. We can envision, for example, By-LawML, electionML, or PRML for press releases.

Citizens, using software which understands these languages, will be able to know exactly what information a government should have, how it should be expressed, and where to find it. It will be a hard-pressed government which does not share.

Knowledge Base Integration

Some thoughts on how to use knowledge bases effectively in an online learning environment.

This article is the result of some reflections on an online learning portal being set up by the good people at Duncans MindLeaders On-Line Learning. My reaction isn't so much a response to their effort as it is a wider reflection on what it takes to use knowledge bases effectively.

Categories

I notice they place links into categories, though I couldn't find a portal-link page where the categories are displayed. But that said...

I've been wrangling with categories for some time now. I used to set my knowledge base such that each link was associated with a category (it was actually a field in the link table). Then I wanted links to fit into multiple categories so I created a 'lookup' table (or 'link list').

When I submitted a link, I would also select a category for it (from a drop-down list). This ceased to be practical once I got up to about 250 categories. I tried various ways to generate category selection and finally settled on 'automatic' categorization, whereby the contents of the submission would be scanned for a regular expression and the category (categories) based on matches.

I've concluded after several years of this that none of this is worth the effort. Categories are too fluid - something that was a subcategory last year ought to be a category this year, and all that really depends on your point of view anyways. Also, any meaningful categorization schema is going to have hundreds - even thousands - of entries, and so it's as hard to find the category you want as it is to find the actual entry.

So: I redefined what I mean by a category. Now, what I think of as a category is a 'pre-defined search'. This allows me to add, delete, amend, reconfigure, etc., categories as much as I want without worrying about the integrity of the entire system. Cross categorization, which used to be a big headache, is now simple. And I never worry about assigning an entry to a category.

Redundancy

When I looked at their KB I followed their suggestions and saw the link, attributed to me, that you had placed into the system. Which led me to the

question: how did it get there?

I ask this question from a technical point of view, not a content point of view (you can use any of my links that you wish). The short story is, there's two ways it could get there: manually (via e.g. cut and paste from the newsletter) or automatically (via., e.g., one of my data feeds, such as the RSS version of the newsletter).

My Knowledge Base runs on a custom-built relational database authored in Perl (I didn't like what was out there so I wrote my own relational DB software). It runs on standard RDB principles so in theory your DB could read my DB produces and vice versa. Indeed, that's the whole point of having multiple versions of the link DB, and especially the XML version (currently only an RSS feed, but planned to be many more).

My KB also has a subroutine I call 'grasshopper' that is essentially what people call a 'scaper' or 'aggregator' - it contacts external sites, reads the HTML or RSS, brings back the data, formats it, filters it (according to whether it matches any of my categories, where categories are, recall, pre-defined searches) and tosses it into (a preview area of) my KB.

Seems to me that this is a lot easier than cut-and-paste, and indeed, if you set up a 'what's new' view of your knowledge base, I will scan it regularly and pull the info. Even better if you provide an RSS view.

Distributed DBs

Now we can actually take this even a step further and ask: why is my link in their KB at all? Again, this is a purely technical question.

I actually have several instances of my KB software running for different projects. I am trying to set it up so that you can define searches across these independently maintained KBs. Thus, e.g., If I search for 'LCMS', it will scan my KB, then yours, then any of a number of related KBs to retrieve the data.

Then there's no need for you to input my entry into your KB at all. You only need a means of accessing it. Only if you want to do something over and above what I do (e.g., add the rating system) would you want to store it on your own system.

Value-Add

When I looked at their version of the entry I 'contributed' what I saw was a word-for-word replication of what I had written. Now that is probably an

artifact of your demo for me, but it raised some questions.

When I say 'value-add' what I mean is the addition of reflection and contextualization. Thus, for example, when I add an item to my KB I will provide an assessment of the resource (is it 'light'? 'detailed'? 'authoritative'?). But more, I will discuss what role this resource plays in a larger picture. Does it contribute to the ongoing DCMA debate, for example? Does it add to our understanding of LCMS theory? And finally, I often indicate whether or not I agree or disagree with the content of the resource, whether I have a quibble, whether I think they've made some point that needs highlighting or refuting.

This is the 'value-add' and I think it provides much more information than a simple ranking. But also: because my search works over the contents of the listing (as opposed to the contents of the resource being listed), it creates better search results. Thus if I say a certain resource that talks about how to write good code can also be used to evaluate good instructional design, the resource will show up in a search for 'instructional design' even though it never actually talks about it. Thus my search is, itself, a form of value-add.

Integration

Their KB looks like most KBs in that it is a stand-alone project. At least, that's how it appears. But I think that people don't go to KBs to do searches - or more accurately, there are many more useful ways to use a KB than to have people go to it and search.

My own KB engine extracts and integrates lists of resources (or even single resources) into web pages, for example. Now this is no great invention - Cold Fusion and ASP have done that for years. But it is an important use: it means you can create a relevant up-to-date list of resources on any web page.

I use this to create my newsletter. My newsletter page is simply a command to extract all the links from a give project that have been submitted in the last 20 hours (my weekly newsletter is exactly the same except that it's all the links from the last 120 hours).

The big weakness of Cold Fusion and ASP, though, is that these lists of resources can only be placed on a page sitting on the same server as the database (or that has direct access to it, in the case of a networked server environment). I could not, for example, place your resources on my home page.

But you could place my resources on your home page. You could specify

exactly what you want to see ('the last 5 resources that mention the word 'grasshopper', say). The idea here is that my KB can be used by any person on any page. It could thus be, for example, integrated into an online course that uses WebCT.

The key idea here is to move the information from the KB to the remote location where it is actually needed. People should (almost) never have to go to the KB - the KB goes to them.

Conversation

I haven't built this in yet but I'm going to. It seems to me that any resource ought to be able to spawn a 'conversation'. People should be able to comment on the resource; these comments in turn become resources in their own right, feeding back to the original resource.

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