Scholarly authority in the age of abundance:

Retaining relevance within the new landscape

Michael Jensen

(presented 5/13/08, the keynote address at JSTOR's annual Participating Publisher's Conference. Parts of the presentation were originally presented 1/16/08 as part of the lecture series 2020 Vision: The Future of Scholarship and Publishing, Ohio State University, Columbus, Ohio)

CLICK – opening

I'd like to thank the organizers for giving me this opportunity to speak to you today. In the mid-90s, as the Electronic Publisher at Johns Hopkins University Press, I was deeply involved in the complex early negotiations regarding the Project Muse journals and JSTOR, and have delightedly watched them evolve as a partner with publishers, ever since.

I've been asked here to talk broadly about scholarly authority, the future of scholarly publishing, and the issues we're facing in scholarly communications, but first I need to be very clear about something.

I'm not Michael Jensen – at least the authoritative one, according to Google. CLICK

I'm not Michael E. Jensen, Jesse Isidor Straus Professor of Business Administration, Emeritus, at Harvard University. [Though we've met, in a funny bit of doppelnamer. http://www.people.hbs.edu/mjensen/]

CLICK

Nor am I Michael Jensen, author of *Firelands,* a 2004 Lambda Award Finalist, which features, according to a Genre review, "Gut-wrenching plot

twists.... and steamy lad-on-lad sex scenes."

[http://www.michaeljensen.com/bio.htm]

CLICK

No, I'm not even Michael P. Jensen, the "Blogging Parson."

http://www.blogger.com/profile/15379361601019023165

I'm not a scholar. I'm not a soft-core porn writer. And I'm at base an empiricist.

No, I'm not any of them. But I'm currently the fourth Michael Jensen down the Google list, which I guess is sort of B-grade authority.

CLICK

It's such a great little example of what the scholarly and academic publishers represented in this room are beginning to confront: the nature of authority in the era of content democracy and abundance.

I'm fourth for a variety of reasons, and most of them are reasons outside my control. The Harvard economist – who happens to research electronic commerce – is at the top, because of his scholarly references, his links from prizes, the authority of his institutional affiliation and its Web site, and more.

The historical soft-core gay fiction writer is next almost certainly because he has so many links *to* his site, as a published writer, and as a writer of genre fiction – links within blogs discussing gay fiction, links from Amazon, links from other significant lists. Each link is a kind of vote, and a named link – something like "see <link>Michael Jensen</link>'s historical soft-core porn..." is even more valuable than a "click here," within the algorithms of Google.

And the Blogging Pastor is third because he is currently a fairly rare breed – a blogging pastor – and no doubt also gets named links from lots of other blogs, discussing religion, spirituality, Anglican thought, and we-should-do-more-to-get-the-youth-involved Church discussions.

My arena is digital scholarly publishing, which just doesn't get the passion that religion, steamy sex, or even economics gets. My home page manages to be fourth (out of 770,000) because it's on a highly-respected server (nap.edu), and because I've been around a long time, and so I have a lot of presentations, essays, projects, and other material that I've made public, openly, as often as I can. These have, over the years, been linked to and commented upon, accruing pretty good "algorithmic authority" as those things go.

CLICK

One big reason I'm here today, apart from showing up on the first page of a Google search, is because of an essay of mine published last summer in the *Chronicle of Higher Education*, entitled "[The New Metrics of Scholarly Authority]()," It's available free, as well as to subscribers. To my delight it has made it onto syllabi and into other peoples' PowerPoint slides. Many specific details about scholarly authority are listed in that article. But for this gathering, I want to take a wider view, and to spiral in on some fundamental issues raised by that theme.

Today I'll talk a lot about scarcity and abundance, but also about revolutions in scholarly publishing and their consequences, both delightful and dire; about scholarly authority in the new digital environment, and the

differences between algorithmic authority and scholarly authority; and about our collective challenges and responsibilities over the next five to ten years.

It's a big challenge, keeping an audience engaged for this duration, but I'll do my best. A great deal of the next 40 mins will be storytelling, or explanations of perspective, without bullet points or much else, beyond background imagery. I'm going kind of old-school on ya – because I've got stories to tell. So sit back, get comfortable.

CLICK

Imagine you're a member of a prehistoric hunter-gatherer tribe on the Serengeti. It's a dry, flat ecosystem with small pockets of richness distributed here and there. We're almost always a little hungry. The hunters run down game, and bring harvests of nuts and fruit when they can find it. The shaman knows the medicinal plants, and where they grow, which may require long trips to the other side of the region. Specialized knowledge of available resources, and the skill to pursue those resources, was what was admired: those who are best at gathering, returning, and providing for the benefit of the tribe. That is an authority model based on scarcity.

Contrast that with the world now: For most of us, acquiring food is hardly the issue.

CLICK

We use food as fuel, mostly finding whatever is least objectionable to have for lunch, and coming home and making a quick dinner. Some of us take the time to creatively combine flavors, textures, and colors to make food

something more than just raw materials. They are the cooks, and if a cook suggests a spice to me, or a way to cook a chicken, I take his or her word as gospel. Among cooks, the best are the chefs, the most admired authorities on food around. Chefs simply couldn't exist in a world of scarcity.

For the past hundred years, we have lived, worked, and built job descriptions within a world of content scarcity.

CLICK

Information, knowledge, and perspective were historically rare, precious resources. To read the ideas of a scholar from Oxford, we had to have a library that purchased the scholar's book, or subscribed to the journal containing a scholarly article. Big libraries were required, for a university to have status, and to support their scholars. Very few works were everywhere – and those that were, were canonical.

Before the Internet, scholarly communication writ large required the intermediation of librarians, bookstores, and publishers. The costliness of publishing became an invisible quality control mechanism that drove nearly all of our decisions. It became the scholar's job to be a selector and interpreter of difficult-to-find primary and secondary sources; it was the scholarly publisher's job to identify the best scholars with the best perspective and the best access to scarce resources.

Because of the huge financial risks of publishing, and the difficulty and cost of transportation, we evolved immensely complex, self-referential mechanisms to validate scholarship, ensure significance, and make the most

of scarce, expensive resources. Consequently, scholarly authority was conferred upon those works that were well-published by a respected publisher and judged important enough to be purchased by libraries. And those of us browsing the library could pretty much presume that anything published had passed through those quality filters. If it was in print, it must be pretty good.

The deepest scholarly authority accrued over time, via the references made to a scholar's work by other authors, thinkers, writers, and scholars. Fundamentally, scholarly authority was about exclusivity in a world of scarce resources.

We now live in a world of content abundance, not scarcity.
CLICK

Today, far more is "published" than is possible to read, in nearly every sub-subdiscipline. That change has put pressures everywhere, and is rightly forcing us to question fundamental presumptions in scholarly enterprises. The centralized systems required in a scarcity-driven world – notably, libraries, publishing, even universities – are being challenged. The shift from scarcity to abundance, in our world, has been truly revolutionary.
CLICK

Revolutions

I've participated in a few technosocial evolutions in scholarly communications over the last couple of decades, and one in particular seems pertinent. Before I move into authority metrics and the near future, I want to tell you a story about a surprisingly little-known phenomenon in Eastern Europe, that I observed in the years immediately following the fall of the Soviet Empire.

Between spring 1990 and late 1994, I worked a lot with scholarly publishers across Eastern Europe, helping them understand computer technologies, and understand how scholarly publishing worked in the West. My deepest experience was in Czechoslovakia,

CLICK

before it split. Bill Regier, who's here today from the University of Illinois Press, was at the time my boss, and was also involved in much of this work.

The Soviet scholarly publishing model was to have every university publishing its own stuff —introductory biology coursebooks, collections of essays, lecture notes, monographs, research —at the professor's behest. There was heavy subvention from the universities, which were of course subvened by the state. Editorial selection scarcely mattered. Every year, a few works were designated as worthy of being given the full "book publishing" treatment, usually in an attempt to give their universities a medium of exchange for publications from the West. There was no economic feedback system in scholarly publishing, because there were no cost recovery systems beyond a token fee of a quarter or so per "scripta," as the class publications were called. Textbooks had a token cost of about the cost of a pack of Czech cigarettes.

Via massive bureaucracy, nearly all university publishing costs were attenuated into near-immeasurability. Cost containment systems based on merit, or audience, or interest were almost *DIS*couraged. Instead, decisions were [often] based on old-boy status. By having the right connections, as we learned from one university press, an important professor could arrange to have 50,000 copies of his book on the aerodynamics of bat wings printed, in

Czech; this was to his advantage, because his royalty was based on numbers printed, rather than numbers sold.

Other non-university publishing houses also published scholarly work in philosophy, science, metaphysics, etc.; some of these houses had more independence, and freedom of choice of what to publish, but composition, printing, distribution, and often salaries were also heavily subsidized. Prices and print runs were often at the whim of, ahem, important people.

When the Soviet Union collapsed, there were warehouses with hundreds of thousands of copies of biographies of Stalin which nobody would ever buy. And the warehouses also held about 49,800 copies of that bat wing book.

But this wastefulness was not necessarily all bad. In the pre-revolution days, a socially supported, exceedingly expensive publishing industry created very inexpensive books, and that deeply affected the Czech culture. New books came out once a week, and the bookstores were like flowers in a field — every square had bookstores, every tram stop had a cardtable selling books.

When I first started spending time in Prague, just after the revolution, I noticed that nearly everyone — and I mean the butcher and the hardhat and the professors alike — was *reading.* Reading on the trams, the metro, the streetcorners, and clustering to pay a few crowns for new titles — and not [escapist] trash, but history, philosophy, science, metaphysics. In Czech!

Their system of subvention had enabled a "reading economy" that supported a highly literate, well-educated populace, who read ideas for fun, to pass the time.

When the Velvet Revolution met free market capitalism, suddenly universities, whose costly subventions were being completely reconsidered by

new governments, were telling their "presses" that they had to become self-sufficient in two years, by raising prices and selling more books. Many were told they had to become profitable, to support the university.

These policy decisions were made by university bureaucrats whose sense of capitalist democracy were slogan-level ideas picked up from Dallas reruns and the Voice of America, a dash of Hayek and Adam Smith furtively read, and limited direct experience rehashed at dinners for decades.

Their consequent policies had no consideration of the realities of publishing costs and cost recovery, no understanding of the infrastructure required to have a viable publishing market. Things like functioning distribution system, and warehousing, not to mention computers, databases, or predictive experience regarding print runs and sales. Most importantly, there was no understanding of the needs of scholarly publishing in a small-language market educational system. And no recognition that, in a revolutionary economy, *nobody* would have spare cash to make discretionary purchases.

By 1995, the prices for books had become ten to fifty times as expensive as they used to be. The publishers who were surviving were literally subvening their own translations of Derrida by publishing soft-core pornography, since that, at least, still sold.

Bookstores closed down everywhere. Publishers closed down everywhere. And people stopped reading every day. By 1995, nobody was reading metaphyics on the tram. A quarter of the university presses I knew of were closed, over half of the small scholarly publishers I'd known were gone, well over half of the bookstores I knew of in Prague were shuttered, and the

scholars I'd befriended were telling me that they couldn't get anything published anymore in Czech — there were fewer outlets than ever.

CLICK

Neither model was right — the absurd redundancies and inefficiencies of the Soviet system were far too costly, though notably the result was frequently a marvelously high level of intellectual discourse; the follow-on naive-capitalist system, though nominally "free," was far too brutal and had consequences that they are still feeling —

CLICK

far fewer high-level publications in their own languages, fewer high-quality scholarly publications in general (a significant problem in a small language group), and cultural costs that are while hard to quantify, are easy to identify as penalizing their intellectual culture.

What that revolution has to do with the current revolution may not be obvious, since it's about content *scarcity,* not content *abundance.* But the story is also about how rapidly a society can change its habits and patterns. Over those three or four years, an unexpected consequence of the "free market" was that quality content, and a society of ideas, was trumped by convenience, capital, and entertainment.

I first told that story in a talk I gave at the "Scholarly Publishing in the New Millenium" conference, in Vancouver, in 1997. More than ten years ago. In 1997, I was still asking for hands of how many people had personal email addresses. The Internet was almost exclusively an early-adopter and academic

realm. And the idea of watching an episode of "The Office" on a cell phone was way beyond the pale.

CLICK

Let me contrast it with the fourth O'Reilly Web 2.0 Summit, which I attended six months ago. For those of you not familiar with these annual Summits, they're arguably the leading conference regarding the cutting edge of the Web. And they've been great places to hear the whispers of the future.

The audience was an array of representatives of sectors with a great deal to gain or lose in the new digital environment: venture capital firms, ISPs, telecommunications companies, television, music, news, developer shops, and many more.

CLICK

It was an intense two-and-a-half days, as the big money and big idea guys vied for status and playah-hood, up on stage. These were Google/Yahoo/Comcast/Nokia/Time-Warner CEOs, CIOs, and Presidents-for-life, or at least till the next quarterly report came out. And they were young entrepreneurs basking in their Web2.0 successes and coolness.

CLICK

There were a handful of Big Themes that came out during the conference: what was called "the social graph" – the entire network of connections you have to things and to people, currently instantiated in Facebook and Myspace. The 700 Mhz spectrum auction. The billions of dollars at play. The increasingly powerful tools within social networks — widgets, gadgets, and apps. Gaming, both casual and core. Animation, and

virtual spaces, and avatars. Great stuff, but at first, seemingly unrelated to my field of scholarly communications and publishing.

It wasn't till I'd mulled, and written, for days about this, that a coherent picture emerged, and truthfully, it sort of scared me.

This feels to me to be another of the rare inflection points, not unlike when email and Websites first began to take hold in our society; or when big capital first recognized the potential for the Web. It's an environment ripe for some dramatic convergences over the next three to five years.

Interestingly, that term, "convergence," wasn't mentioned once during the conference. It's an old-school term, from the "Web 1.0" days. when people thought "portals" were the next big thing, and when "content was king." Remember that? And notably, that was before the emergence of social computing.

CLICK

But "convergence" is on the move again, via a number of newly-empowered technologies that can integrate via standards-based communication. The majority of these giant investment gambles are going toward two convergence arenas: "social networking," and game hardware and software. And these convergences are being driven by Big Money.

CLICK

Not only are the dollars huge, but one key attitude – voiced repeatedly from different angles and different industries – was striking: Everyone recognized that *openness* and *interconnectivity* and *standards* were preconditions to, and the lifeblood for, the financial success of any online enterprise, rather than proprietary, closed-wall systems. That is, the Web 2.0 crowd recognized

that standards-based, open interconnectivity between systems is what the customers want and will eventually get: fully sharable Facebook entries, widget-accessible iLike lists within your browser or virtual world, Flickr embeddable into MySpace, personal Google News feeds integrating with your Semantic Web collections. In this world, services, rather than than content, are king.

Giant investment gambles will continue, in the hundreds of millions to billions, over and over, in this space, in the next year or two. And this will drive a great deal of development, experimentation, and creativity. It will also change the way we live, work, and play – and importantly, how we learn, research, teach, and educate.

CLICK

Today, there are literally millions of 15-30-year-olds happy to pay a premium to upgrade to higher-quality graphics for their immersive, multiplayer, social-engagement games, played over broadband. That in turn drives up the available quality for related systems, for other purposes, and swiftly drives down the prices for most of the technologies.

Add to that the emergence of some form of ubiquitous high-speed digital access via WiFiMax or via the 700 MhZ spectrum, likely to be commercially available in a couple of years. Toss in substantial improvements in animation technologies and visualization, and the always-decreasing prices of chips, memory, and general hardware. Blend into that soup the rise of profitable social-engagement companies, the rapid spread of "voice over IP," and the routinizing of fundamental programming layers (like Ajax, PHP, Ruby

on Rails, and others) that make site design and integration more like conceptual art than programming.

This is a heady recipe for evolutionary development. The driving systems are simultaneously social *and* technological, and the interactivity, data resource interconnections, cross-system compatibility, multimedia integration, personalization, shared/selective privacy, etc. will all be applied to options *other than gaming or Facebook*. Academia, and scholarship, will be deeply affected.

Five years ago, the notion of a tens-of-millions of daily participants on "social networks" like MySpace or Facebook was hardly conceivable.

If I look five years down the road from now, here's what I see: the majority of American and European 18-40 year olds living a majority of their working and nonworking lives in a wide variety of virtual personal and social spaces.

CLICK

I expect to see voice-over-IP (think Vonage, Skype, Gtalk) integrated with digital representations – animated avatars – of my friends and colleagues in social spaces that I can control. And when I can use all these tools to chat, real-time, over virtual coffee, with the invited avatars of people I choose to invite, or who invite me, then I have the systems to do almost anything in virtual space: I can hold classes, go on dates, hang with my friends and watch tv and laugh together, or share my recently-researched library of sites regarding youth ministry blogging. This cannot be far away. The technologies all exist now.

Some of these virtual spaces will be games; some will be telecommunicated conferences; some will be a true "virtual office" enabling easily-managed telecommuting; some will be consciously-constructed "search spaces" and libraries of digital information that one builds over time. But they will be personal, and personally configurable, and often public, not unlike blogs.

Different virtual arenas will appeal to different tribes – the researchers, the fantasy sports fans, the knitters, the specialists, the famous, the investors, the dilettantes.

These "virtual social spaces" and "virtual private spaces" will start changing many social patterns, not least of which will be the habits of mind of that, and every subsequent, generation.

And here's the crux of my worry:

Virtual space is a kind of magical realm: you can click your fingers and have a virtual cup of coffee appear. You can fly. You can redecorate your virtual space in an afternoon.

Though technologically astonishing, the virtual world is not a realm of empiricism, or analysis, or perspective, or enlightenment thinking. I work for the National Academy of Sciences, and so even while I'm excited about the possibilities for animation and video for teaching the wonders of science, I'm deeply worried about the loss of empirical reality as a basis for mental models,

What happens to our culture, and to our individual habits of mind, if we spend most of our time in virtual spaces? Will we all be able to more easily ignore climate change and environmental degradation? More easily ignore Fox TV, and only know or care about what my tribe knows? More easily be convinced to buy more stuff?

Big money is pushing for an online entertainment consumer culture, and cares not a whit about ideas, philosophy, knowledge, or scholarly publishing. Y'know, the stuff we care about, that we've staked our careers upon. And big money tends to get what it wants, even if it's not good for us.

So far, I've talked about the fundamentally dissonant shift from an information economy of scarcity, to one of abundance; about revolutions and their possible aftereffects; and about possible transformative revolutions of the near future. I've tried to frame these themes as I see them, because they form the foundation for many of my broader concerns about authority in the age of abundance.

When the elephants of big money move, the earth trembles. As broadband expands, and virtual worlds bloom on our wall-sized high-definition screens, these digital realms will increasingly integrate with our daily lives. This can be a good thing – very fun, very engaging, very useful. But I'm afraid that a culture may erupt that has very little to do with what I care about, and that most of us in this room care about, and that's what I want to conclude with – a bit more analysis of authority in various contexts, and perhaps a wake-up call to action on the parts of scholars, scholarly publishers, and scholarly communicators.

Expertise, authority, even knowledge, are currently undergoing some radical transformations, at least in popular culture. Wikipedia is now the de facto source for checking facts, while Britannica is on the wane. Google is now the de facto tool for what most of us would call "research." And expertise

itself – the kind of expertise that comes from long study, scholarly analysis, and a deep immersion in a field – is, I fear, rapidly becoming devalued in the popular mind. Nuanced perspectives <u>seem</u> to be easily available to anyone, by browsing for an hour or two, comparing blogs and commentary. There are self-defined experts all over the place, who have greater "algorithmic authority" than the *real* experts.

CLICK

A fascinating example is Mongabay.com. Search for "rainforest," or any of a number of terms about that topic, and Mongabay will come up. It gets hundreds of thousands of visitors a month, and has great information. But it was created in the late 1990s by a concerned amateur. By paying attention to search engine optimization, and algorithmic authority, he built that audience, and built that authority.

Further, he made enough money from the site to hire staff. And now they're actively paying attention to the field, and the site gets more readers than all the key centers for tropical rainforest research in the world, combined.

We need translators of specialists, of course, and I'm delighted to see important issues popularized. But I'm also aware that the true experts, and their sites, and their content, and their perspectives, have lost their audience. That means that fewer people are stretched to understand what the true experts are trying to communicate.

In spite of how amazing Google, Yahoo, MSN, and other search engines have become, they're actually pretty stupid about the things we care about, in the scholarly community. I mentioned nuanced perspective a

moment ago – and search engines are terrible at finding it. They're great at finding facts, but just suck at finding perspective.

CLICK

That's because they use fairly simple algorithmic authority metrics to try to provide users what they most want – simple overviews that lots of people have noted as being important.

Most of us in this room probably have a vague sense of how algorithmic authority works in Google, or Digg, or Del.icio.us, or slashdot, or even DailyKos. In general, links, recommendations, tags, or other conscious actions by a person or organization becomes some measurable "vote" that raises the revelancy of a document, a publication, a blog posting, a comment, or a recommendation, at least within the computed systems.

CLICK

Online reputations are built this way, as I touched on earlier. It's a blunt instrument: on or off – either a vote, or not a vote. Either good, or bad. A few systems, including Google, have a wee bit of gradations – where links from highly dependable and respected documents count more than links from a random blog – but the binary principle is most common.

An entire industry has arisen to try to take advantage of that algorithmic simplicity, trying to one-up competitors in search relevancy and optimization. Google says that more than half of the so-called content on the "open web" are actually faux web pages, constructed merely to link to other pages and sites, in an attempt to raise the targetted documents' algorithmic relevance.

CLICK

The National Academies Press – my press – is the beneficiary of this algorithmic model: because we have all this great open content from the National Academy of Sciences, Institute of Medicine, National Academy of Engineering, and the National Research Council, we get lots of people linking to us, referencing us, bookmarking us, and so our algorithmic status is very high in Google, Yahoo, MSN, etc. That means that we are likely to continue to be high on the search engine pages, for topics that matter to us. We've managed to get algorithmic authority that *matches* our real-world authority.

But that's part of the new world, that most of the old world is reticent to acknowledge. I'm afraid that scholars, specialists, and experts – you, and me, and the people we publish – are poorly prepared for this revolution. We're like the scholarly publishers in Prague, understanding the implications of the revolution through a hand-ground lens.

Universities, associations, scholarly societies, and scholars themselves have evolved in a world of central planning, with massive bureaucracies of intermediaries. We have a dash of naive digital capitalism, perhaps a jot of Hayek, and a pinch of Web 2.0 in our view of the ongoing content revolution, but probably don't really understand the fundamental realities, much less the implications of these changes. Our ideas of "authority," expertise, scholarship, communication, and publications, are all based in the 20th century – when paper-based publications, in a scarcity economy, held sway.

CLICK

Those ideas of authority – the ones we still think are real, and which I'm still arguing for – are based on nuanced perspectives, and nuanced

metrics, rather than the blunt instruments that hoover up the Web's kajillion pages.

Within the scholarly community, authority derives from a variety of human judgments, based on nuanced perspective at every stage. What we in this room do is a huge part of that: publications are at the heart of scholarly authority, but is also part of a larger network of judgments. The scholar at Yale, or even at Acme State, gets there because she demonstrated authority and intelligence and expertise in her field elsewhere – in grad school, in another position, at conferences, and in the field. She published in important journals – meaning her writing was judged by peers, and by editors, as being significant. She was given awards, published significant books, appeared on panels – all, again, based on human, nuanced judgement.

CLICK (framish studies)

I harp on "nuanced judgement" because each field is unique. Within, say, Framish Studies, it may be that the Journal of Framishology, published from within Yale, is only a second-ranked journal, while the Framish Quarterly, published from Acme State, has long been known to be the most important. The tenure committee knows this, and takes that into account. Columbia University Press, whose quality is generally high, may publish Framish and Whatsit Today, while the University of Illinois Press, also generally high quality, publishes Framishic Studies, which has, in the last few years, trended toward a more sociological approach to Framish analysis, instead of the more empirical Framish science embraced by the tenure committee.

These kinds of nuances are not easily translated into algorithmic analysis. Nor does Google have any compelling reason to invest millions of programmer dollars into developing authority metrics that address nuance – it would only confuse their set of issues.

I could oversimplify the case by saying that Google is mostly a measure of popularity and famousness, rather than authority. And I'd be generally right.

But my concern is that in this ecosystem of content abundance, in the competition of kajillions of documents, that distinction will rapidly become as moot, as it has become in popular culture and politics.

CLICK

Celebrity Jane is famous for being on the front page of Us!, which depends on her attention from blogossip info about her infidelities, which fame results in her being able to attract good roles, good enough to add to her fame. Pundit Bob is an authority because he's been on TV a lot, and looks great, and he's on TV because he looks great and is a pundit, and the ratings seem strong.

To stay relevant in the virtual world of abundance I described earlier, we – the world of true scholars, true nuanced experts, the Academy writ large, but also academic publishing in specific – we need to be actively engaged in that universe, and actively promulgate our ideals and our ideas. If we rely on the value of our ideas, I'm afraid we will, quite simply, lose.

Today, simply printing and distributing – the old scarcity approach – is no longer sufficient. Instead, we have to actively promote the "brand" of scholarship and expertise, and the "brand" of the works we publish.

Yeah, I hate it too. It smacks of sell-out. But I also believe in nuanced expertise, and want it to get its due, in the algorithms of the world.

But rather than being fearful, protective, or reactive, if nuanced expertise (our bread and butter) is to be competitive, then we must transform ourselves into warriors for quality, warriors for expertise, warriors for scholarly value.

To actively assert the value of our work in this new content-abundance economy, we must grapple with some exceedingly thorny issues, by confronting the social *and* technological elements of the algorithms of scholarly authority. We have to rethink how we engage with the outside world, how scholarly authority is manifested, and even how our "votes" are counted by the algorithms of the digital world.

The thorniest issues will be the transparency of any kind of authority metrics. It's one thing to say "we should be able to measure the quality of our scholars," and another to be telling Dr. Smith that his authority number is smaller than Dr. Jones, for whom Smith has no respect.

But radical openness of reputation will be required, since we have to inform Google, Yahoo, and MSN of the citations, scholarship, and importance of our scholars.

In the blog world, sites like Technorati make their algorithmic "authority" metric visible.

CLICK

A project a friend of mine and I recently launched, a lighthearted look at catastrophic likely futures called postapocology.com, has a pitiful authority of 1 in Technorati, because it's so new.

CLICK

Technorati doesn't know – nor have any way of knowing – that I'm a keynote speaker at a highly authoritative annual meeting, or that on Del.icio.us, I had hundreds of people bookmarking my Chronicle article on the "New Metrics of Scholarly Authority." My authority is scattered in different siloes.

But if, in some way, the participants in scholarly society – those who publish, those who vet, those who measure, those who participate in the culture of true, studied, scholarly expertise – if those participants could do that thing that "Web 2.0" sings the praises of: (harvest the collective intelligence of its users and audiences) – then scholarly publishing would indeed be fulfilling its mission of expanding society's understanding of complex, specialized, but important issues.

If the scholarly community could develop open, computable authority metrics, for scholars, their journals, their scholarship, their classes, their institutions, their libraries, their basic network – well, then we could provide a standardized baseline for Google and others to use, as a major factor in their computation of authority. That would be huge.

But that also requires engagement on the part of scholars, university administrators, funders, policymakers, and not least, tenure committees. I'm

pretty much talking about transforming the entirety of scholarly behavior for the purpose of ensuring that the lifeblood of our academic culture is not thinned by the rise of famousness over true significance.

And of course, it won't be done in one fell swoop. But what I do hope, is that we can begin grappling with these complexities.

We need to take advantage of our existing strengths, and try to devise standards-based, open, non-trickable, scholarly authority systems that university information networks can integrate into the daily work of the universities. The bookmarks, tags, social and intellectual connections, virtual spaces, and collections of expertise of the many scholars, specialists, and experts at our institutions could be a real boon to humanity, by informing online systems, helping filter out crap, aiming people toward quality, and finding new ways to publish.

CLICK

Perhaps each article needs to be a social network. Perhaps each article needs to be a nexus of nuance.

The bibliographies of every article should be informing citation analysis systems, by providing structured data to be algorithmically analyzed. The entirety of the scholarly research enterprise, from grad student to postdoc to emeritus professors could be harvested, as an engine of collective intelligence.

That's asserting the value of expertise and scholarly authority, by publicizing the value of nuanced knowledge.

CLICK

Journals, and journals aggregators like JSTOR or HighWire, have a huge role to play. But the policies you set – and the encouragement you provide as scholarly publishers – are in the end more important than the technologies.

If you've been waiting for me to tell you what to do, I'm sorry to disappoint. We have a very complex, fraught future ahead of us. If we do as we've always done, we'll survive, and ride things out till retirement. But if we do so, we will have left a legacy that hamstrings that which we hold dear: scholarly expertise. True scholarly authority.

If I have a particular message, it's not a simple one. Cultural transformations can happen quickly, and with unfortunate unintended consequences. We are in the midst of a revolutionary shift from content scarcity to content abundance, a cultural U-turn so extreme it's hard to comprehend, and even harder to forecast. Scholarly authority, the nuanced, deep, perspective-laden authority we hold dear, is under threat by the easily-computable metrics of popularity, famousness, and binary votes, which are amplified by the nature of abundance-jaded audiences. The ubiquitously-connected, ubiquitously-virtual world of avatars and remote participation, will be a tsunami of change, in the way we think, and the way we perceive the world.

And finally, I think it's incumbent upon us to recognize that we are part and parcel of the scholarly world. The transformation into the virtual world I described – in which the virtual world is in fact the world we inhabit most of our waking lives – is a transformation we can influence. We can ensure that we retain our authority, our significance, our relevance, in this new environment.

But we can influence it only if we engage with it. We can influence it most easily if we open our own processes of authority measurement to the computation of others. Our collective intelligence – of the entire scholarly community – needs to be informing the collective intelligence of our society.

I hope we can make it happen.

I'll close with a faux quote that almost works as a benediction.

CLICK

thank you for listening.

---

expected URL: http://www.nap.edu/staff/mjensen/jstor_keynote_08.html

Michael Jensen was recently appointed Director of Strategic Web Communications at the National Academies. From 1998 to 2007, he was Director of Publishing Technologies at the National Academies Press, which makes more than 3700 books from the National Academy of Sciences, the Institute of Medicine, the National Academy of Engineering, and the National Research Council fully browsable and searchable online for free.