"What have we to do with Mr. Everyman, or he with us?" Reflections on professionalism, the public & the digital age

Address for a 2005 Plenary Session on:
   The Public Presentation of Science and Technology

**Joint Meeting of the History of Science Society and
the Society for the History of Technology / Minneapolis, 11/2005**

When I think of the public presentation of science and technology, my memory sends out too many images to ever capture at once: of standing starstruck in front of a preserved coelacanth at the Museum of Natural History in Los Angeles, and of the excitement of staying out past bedtime to watch hundreds of tiny silver grunion wash up on a moonlit Pacific beach to spawn; of leaving the family Pontiac behind to ride the Jetsons-like monorail at Disneyland on the way to the World of Tomorrow, and then entering an atom-mobile to shrink down small enough to set out on an "Adventure through Inner Space"; of grandfatherly Walter Cronkite reporting from Cape Canaveral and waiting to hear 3-2-1 liftoff! and downing morning glasses of freeze-dried Tang; of being transfixed by magazine reports of the first heart transplants and of the question of Chinese acupuncture and American bodies; of my tinny little transistor radio sending out top 40 messages like "they took all the trees and put 'em in a tree museum / and they charged the people a dollar and a half just to see 'em" and harder to locate offerings like Tom Lehrer's jaunty ditty, "So Long Mom, I'm Off to Drop the Bomb"; of television bringing the Milgram experiments into my living room as William Shatner urged his experimental subjects on to *The Tenth Level*; and of imagining evolutionary "what if?" scenarios through tales like *The Planet of the Apes* and *Westworld* and *Childhood's End* and the deeply satisfying sentence: "The King was pregnant," from *The Left Hand of Darkness*; of contestations such as Boris Spassky versus Deep Blue and Richard Feynman and the *Challenger* investigation, and Randy Shilts' fury at how the band played on in the midst of a public health crisis that was a real-life horror story.

I also think of my later self, professionally trained with multiple degrees and seemingly millions of pages read and countless paragraphs drafted and redrafted and redrafted again until I had footnotes dancing through my dreams and of untold hours logged at seminar tables witnessing the rituals of academic initiation – all as a prelude to meeting up with my very own small section of the public as a university professor who had been handed her own college classroom. I was to find that of all the many teaching challenges in those first years that the one that would puzzle me the most was figuring out the relationships between the professional world in which I was embedded as a scholar and the vernacular world which was of immediate and continuing significance for students when they stepped back out beyond our classroom's walls. It seemed, in many ways, a silly matter to fuss over: wasn't the point, after all, simply to draw on all those years of advanced training to bring my excess of knowledge to bear on my students' absence of knowledge, so that their minds would be more fully provisioned by the semester's end?

And yet viewing my fellow members of the public merely as historically deficient seemed to be an inadequate representation of the situation. I knew that, for myself, the meanings that I had constructed through my low-church public encounters with science and technology were an important part of what I brought to the high-church seminar table as an historian of science and technology, whether this was spoken of explicitly or not. And I knew that, in turn, my students' encounters with the public presentation of science and technology, and the meanings they assigned to these experiences, were part of what they brought into our historical discussions, even if these touchpoints were not voiced explicitly. Navigating by my professional map, I could clearly see the boundaries between experts and novices, the distance between the learned and the untutored, the sharp outlines of sophisticated analyses as opposed to the blurriness of naive opinions. But the dynamics of a vernacular world we shared in common, even if it existed off the professional map, seemed too powerful a reality to continue to ignore. As strange as it may seem to say in a room full of professionals, the coelacanth and the chess-playing computer and all the rest played positive roles in shaping my epistemological, and metaphysical, and ethical frameworks about the past, present, and future of science and technology, even as earning my higher degrees had.

What would happen if I moved away from thinking of my students as an audience for my erudition, and instead took more seriously the idea of all of us as fellow members of the public, as vernacular partners in making sense of science, technology, and culture? How would I have to rethink how to share with them the professional scholarship that marks our academic labors? In what ways would my goals and values and allegiances as an educator shift? I found myself keeping Carl Becker's 1931 presidential address to the American Historical Association, "Everyman His Own Historian," close at hand, pondering his pointed question: "What have we to do with Mr. Everyman, or he with us?" One crucial aspect of an answer, Becker argues, is the fact that "in a very real sense it is impossible to divorce history from life: Mr. Everyman can not do what he needs or desires to do without recalling past events; he can not recall past events without in some subtle fashion relating them to what he needs or desires to do."[1] Professionals, however, see themselves as taking a different, more objective approach.

More recently, public historian David Glassberg has captured this difference by positing that:

> while professional historians talk about having an 'interpretation of history,' something that changes in the light of new evidence, others talk about having a 'sense of history,' a perspective on the past at the core of who they are and the people and places they care about. 'Sense of history' reflects the intersection of the intimate and the historical – the way that past events of a personal and public nature are intertwined.[2]

David Thelen, in analyzing a survey that he and Roy Rosenzweig conducted of public attitudes toward history -- reported in their book, *The Presence of the Past: Popular Uses of History in American Life* (1998) -- notes that professional historians associate the term "history" with "rigorous discipline and the authoritative use of the past. The word that seemed to have more

meaning to [the] survey respondents – 'experience' – is dismissed by many professionals as random, private, shallow, and even self-deceptive." Thelen contends that :

> the greatest danger from professionalization – a danger that is great because it is often invisible – is that its self-enclosing thrust has made it harder for us professionals to recognize which of our practices resemble 'common,' 'local,' or 'everyday' knowledge and perspective and which have evolved into jargon that makes sense only to other professionals. If we wish to construct serious dialogues about the past with nonprofessionals – who are, after all, our fellow citizens and human beings – we may need to go back and revalue our first languages, the ones we were taught to leave behind when we entered the professional world. By recognizing patterns in our historymaking practices that we share with others, we can more effectively contribute to the larger historical culture we all inhabit.[3]

I believe that, increasingly, "common," "local," "everyday" knowledge will be mediated by digital means, and, therefore, by engaging with the world wide web, historians of science and technology can find meaningful ways to participate in the digital vernacular, and "more effectively contribute to the larger historical culture we all inhabit." There are many ways in which this can happen. Most familiar to academics would be those scholarly efforts that make fine use of the ability of digital information technology to bring archival material directly to the public, or that offer attractive and informative web exhibits that survey a topic or theme, making such historical episodes available beyond books or classrooms. To mention just a few that my students have found useful would be Imperial College's *Newton Project*; UCLA's *A Curious Variety of Mazes and Meanders: The Voyages of Captain James Cook in the Global Eighteenth Century*; Linda Hall Library's *Women's Work: Portraits of 12 Scientific Illustrators from the 17th to the 21st Century*; the Dolan DNA Learning Center at Cold Spring Harbor's *Image Archive on the Eugenics Movement*; the American Institute of Physic's *Einstein: Image and Impact*; Oregon State University's, *Linus Pauling and the Race for DNA*; and, from Stanford University, *Making the Macintosh: Technology and Culture in Silicon Valley*. There are many, many others, as most of you in the audience well know, either by having helped to create such websites or visited them.

But in stressing the concept of engaging with members of the public as participants, not simply viewing them as a potential audience, my aim is to focus attention on what we are missing out on: discussions about digital-age history of science and technology that extend our thinking beyond how to use the world wide web as a new site for depositing *traditional* forms – book chapters, classroom lectures, museum and library exhibits, archival deposits, and so on. The need to think beyond the transfer of print to screen is not because we have exhausted the need to keep thinking about how to critique, improve, and expand upon scholarly websites -- far from it. But the pull of our professional gravitational field tends to keep drawing us back to that which is familiar – professionals presenting scholarship *to* audiences – rather than grappling with what makes the daily experience of the Internet so compelling to so many people: its interactive dimensions that allow individuals to be *participants*, not simply spectators. The

world wide web has opened up more than just a new display space: the use of digital technologies is changing the nature of how knowledge is created (and by whom), how it is disseminated (and by whom), and how it is validated (not merely in professional precincts, but also within the public realm).

Whether it is a sports fan Monday-morning quarterbacking by posting at a message board or in a chat room – or frustrated parents sharing toilet training strategies, or political activists debating upcoming electoral options, or individuals with multiple sclerosis or breast cancer extending sympathy and support and opinions on treatments to each other, or Linux-users sharing fixes along with their disdain for anything emerging from Redmond, Washington, or Jane Austen enthusiasts taking keyboards in hand for group discussions of the latest *Pride and Prejudice video* project – huge numbers of Internet users regularly access communities of affinity for expertise, debate, and the sharing of experiences, in ways that have real-world ramifications: that is, they are engaging in inquiry that leads to action. Interactivity is seen in other ways as well – the idea that information wants to be free is deeply ingrained in the attitudes of music file-sharers who bedevil the entertainment industry and cause headaches for college network administrators, while ventures like *Wikipedia* – the online encyclopedia that is a collaborative publication where anyone who surfs on in can add or edit content at any time – bring ideas about authorship and ownership into new configurations.

One example of digital history that takes advantage of the interactive possibilities of the Internet is *The Echo Project* – an acronym that stands for Exploring and Collecting History Online: Science, Technology, and Industry, at the Center for History and New Media at George Mason University. Funded by the Alfred P. Sloan Foundation and headed up by principal investigator Roy Rosenzweig and a talented staff of historians, *The Echo Project* has experimented with using the Internet to collect and present the recent history of science, technology, and industry by designing survey software that allows for user-contributed personal narratives to create archival databases on topics as various as *Remembering the Moonwalk*; *Building the Washington Metro*; *A Thin Blue Line: The History of the Pregnancy Test Kit*; the *Video Store Project*; and *The Blackout History Project* – the last site documenting the history of the 1965 blackout in the Northeastern United States and the 1977 blackout in New York City. The Blackout site recounts these events in a number of ways: "through interviews, excerpts from various media, a timeline of events, recent historical writing, and, most compellingly, a growing database of first-hand recollections entered by visitors to the site"[4] *The Echo Project* team affirms that their goal is:

> at the broadest level . . . to fulfill the potential of digital media and networks to create a more democratic history. That means including multiple voices and diverse perspectives in the historical record; making the historical record accessible to multiple audiences; and developing historical practices that many different people, not just 'certified' professionals, can conduct.[5]

At this point in my argument, it is as good a time as any to acknowledge that grafting these new kinds of activities onto our worklives comes with costs. Foremost among these are the time pressures that the majority of academics experience, and the subsequent ambivalence that they – we – I – feel about the seemingly endless time and energy demands that ever-morphing hardware and software present. In making strategic assessments of where to put one's efforts, mastering new technologies is often far down on the "to do" list. Adding to this challenge is the distance that has existed between "early adopters" and "later adopters," with university training strategies often patterned after the needs and learning styles of early adopters (who tend not to be humanists, but rather scientists, engineers, or those in the professional schools). Universities are most inclined to be interested in digital technology as a revenue stream, as with online courses or distance learning, or merely in regard to getting everyone up to speed on course management software like WebCT or Desire2Learn, rather than in terms of supporting educators in experimenting with using the web to interact with the public.

And there are other structural impediments as well – as feminist scholars have argued about the way that worklife is structured in academe, it is an environment that, in the words of Cathy Trower, senior research associate at Harvard's Graduate School of Education, "stresses competition over collaboration, solo work over joint work, and basic research over applied."[6] Professional academic societies, which are formed along similar lines, also tend to be organized to support competition over collaboration, solo work over joint work, and basic research over applied. Unfortunately, collaboration, teamwork, and applied research are all key characteristics of successful digital projects and publicly-oriented activities. Given the very real constraints I've just mentioned, it is not surprising that a common response among historians of science and technology, no less than among other humanists, is to assume that there are others who surely must be better-suited to the task of working with new media than they are (the technically expert, say, for whom hacking code presents no fears, or those with a fervent missionary gleam in their eyes about online education, or those lucky souls with relationships to deep-pocket funders), and to simply respond to the possibilities, challenges, and ambiguities presented by computer-mediated communication by postponing thinking about them until some later, more auspicious time.

One thing I know for certain, however, is that there are excellent resources we can bring to bear on this question of computer-mediated communication. The first is the depth and breadth of our professional training, both individually and collectively. We have an impressive array of distributed cognition at our disposal, should we but decide to tap into it. Given scholarly predispositions that privilege the single-authored book or the solo conference presentation, this distributed cognition network is only faintly visible. If we can resist the tendency, however, to replicate the lone author model in our webprojects, we will find that digital communication fits well with collaborative models, and that we can cast a wider net in making use of our communities' talents than would be possible through conventional means, drawing in senior scholars as well as graduate students, bringing together folks who can participate intensively

but only for a brief time with those who can participate in a sustained manner over a longer period of time but only in a low-key fashion, and so on.

The reach of our disciplines also means that we could design projects that make use of the international nature of these networks, bringing together information that easily encompasses comparative perspectives. Such perspectives are needed now more than ever: in an increasingly interconnected world, the decisions of one nation have implications across the family of nations. Governments are under constant pressure to decide what to fund or favor in scientific and technological policy decisions, and individual citizens live with the ramifications of these decisions for generations. The food we eat, the air we breathe, the water we drink, the machines we work with, the systems within which we are enmeshed, how we are born, have sex, live, and die: all of these individual and collective actions are part of a larger ecosystem in which science and technology play crucial roles, and the tools for understanding the historical context for such issues is in our communal possession.

How best to convey this knowledge, from a vantage point that starts from a vernacular perspective? The trick, I think, is giving attention to *starting with the public's questions* rather than our professional launching points, recalling Becker's admonition: "in a very real sense it is impossible to divorce history from life: Mr. Everyman can not do what he needs or desires to do without recalling past events; he can not recall past events without in some subtle fashion relating them to what he needs or desires to do." In moving forward in partnership with the public, I believe that we will need to be more modest in assuming that our professional interpretive frameworks are where it all begins. Reconceptualizing this attitude would represent a shift away "from being about something to being for somebody," a point that Stephen Weil, emeritus senior scholar at the Smithsonian Institution's Center for Museum Studies has made about the generational evolution of goals for museums in their relationships with the public.[7] As just one possibility, for example, this might entail putting together websites that place current issues within their historical context and then experimenting with incorporating interactive elements: topics with global reach such as the Kyoto Protocols, for example, or the buying and selling of body parts, or the possibility of nuclear terrorism; or regional newstories that possess comparative relevance for other societies such as the decision by Cambridge University to abandon building a high-profile neuroscience laboratory involving research on primates in 2004, or Harvard President Lawrence Summers' remarks on women, mathematical ability, and scientific careers in 2005, or the first moves we have been witnessing of the Chinese space program. If we had a working group already in place, we could just now be putting the finishing touches on a site related to avian influenza from the perspective of the history of science and technology, and be inviting in the public as partners.

For a discipline that has been oriented so strongly toward intellectual history, it would not be surprising if this concept of a more closely-allied public service or "pro bono" kind of applied history might sound like it belongs to someone else: how about "those folks" over in STS or maybe those inclined toward cultural history? And it is true: STS scholars and cultural

historians should absolutely be in conversation with intellectual historians in such a venture – they have done much to understand the dynamics of the socio-cultural aspects of the scientific enterprise and of technology within wide-angle frames as well as in close-up studies. In many respects STS scholars and cultural historians possess distinct advantages in the effort to understand what we may have to do with Mr. Everyman, and he with us. But this conversation is one that, if the full multiplicity of the past and present is to be approached, requires contributions from all fronts: indeed, it requires thinking of the work that could be done as an intellectual commons. One of the great gifts of trying to work in the digital age with the public in view is that we as professionals will find a greater need to communicate among ourselves and to integrate views that often would otherwise remain isolated – and will, perhaps, develop a greater respect for communal communication as a disciplinary value. In the process, we will be creating new knowledge by engaging in conversations outside of our usual circles, generating speculations and improvisations that were not pre-scripted at the seminar table.

Back at the dawn of the age of radio and of the photo-magazine, Becker counseled his fellow historians that "if we remain too long recalcitrant, Mr. Everyman will ignore us, shelving our recondite works behind glass doors rarely opened," and he cautioned them that "the history that lies inert in unread books does no work in the world."[8] It is a challenge that is perhaps even more applicable to us in the emerging digital age than the one which has itself passed into history, and yet still echoes today.

Notes
1. Carl Becker, "Everyman His Own Historian," *American Historical Review*, 1932, 37:221-236, 230, 227.

 2. David Glassberg, *Sense of History: The Place of the Past in American Life* (U of Massachusetts Pr, 2001), 6.

3. David Thelen, "Afterthoughts: A Participatory Historical Culture," in Roy Rosenzweig and David Thelen, *The Presence of the Past: Popular Uses of History in American Life* (Columbia U Pr, 1998), 191.

4. From *The Blackout History* project description, November 17, 2004, at http://echo.gmu.edu/collecting_project.php?id=169

5. From "About Echo," August 2004, http://echo.gmu.edu/about/about.php

6. Quoted in Robin Wilson, "Rigid Tenure System Hurts Young Professors and Women, University Officials Say," *Chronicle of Higher Education*, October 7, 2005.

7. Stephen Weil, "From Being about Something to Being for Somebody: The Ongoing Transformation of the American Museum," *Daedalus*, 1999, 128:229-58.

8. Becker, "Everyman His Own Historian," 235, 234.