On Being Social

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In the introduction to the *Selected Papers* from the first Museums and the Web in 1997, we wrote:

> Museums still have much to learn about the potential for using the Web. The prime challenge we face is to move beyond institutional presentation of static pages to enable uses of museum information that are more than just browsing and looking. Truly lively Web sites will reflect an understanding of how people use museum data and permit us to discover what people with appropriate tools would do with museum data if they could. Our next generation of Web sites need to create spaces that support activities ... they need to provide means to integrate information provided by a variety of institutions into packages defined by individual museum visitors. They also need to ensure that the communication enabled by the network is not one way.
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> *(Trant and Bearman, 1997, 2)*

Today we can reflect on coming part-way, and on how far we have yet to go. This year – 2010 – will mark the point at which all of the papers in this volume assume the Web is a social space and not a broadcast medium. They also take the need to learn from visitors is a given. But we are still striving to understand our audiences, define what tools they have and want to use, and understand what it means for tools to work for them. Most importantly, we're still struggling to liberate data from institutional silos.

As the headings of the chapters in this volume suggest, we found the contributions this year delightfully self-reflective. In a most Escher-ian fashion, we are turning back onto ourselves to view the outside from within and, by reflecting what we observe, make a new inside. Learning how what we have done is being received, we are striving to transform it. We're recognizing that the resulting new configurations will stimulate new interactions that we will again need to respond to as we go. And we are learning to design with the need for these constant readjustments in mind, as well as to consider from the outset how to incorporate the content of the interactions of our visitors.

What we can't yet see – through ourselves or our audiences – is how limiting the tunnels are in which we are trapped. There is a world beyond our museums, from which our collections come, and in our collections participate freely. People use collections images and information in activities we have not imagined and cannot control. To some this jailbreak of data is terrifying, though in this volume it is celebrated in numerous small ways and heralded as a possible future. Let us hope that in the actual future, our data will break out of the sterile pipettes

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through which we habitually serve them to comingle with other data in a soup as rich in possibilities as the primordial seas.

I. Building Communities Building Knowledge

The World Wide Web was first invented as a means for research communities to collaborate on-line, but it has taken two decades for the inherent promise to be realized. For the first decade, two-way communications were awkward even though the protocol was designed to support them. Working on the Web required technological expertise. But in the past decade, easily accessible authoring tools, the fuller integration of multimedia, location-aware services, and cloud-based tools and storage are bringing us closer to this vision. Ultimately, however, a technology of collaboration is not a collaborative; that requires the parallel construction of the social ties, patterns of communication and expectations that bind *people* together in a common enterprise.

It all comes together in the Reciprocal Research Network, but, as the list of co-authors of the paper in this volume suggests, it's not an individual effort; there have been many cooks in the kitchen. There were times in the iterative development process when it didn't seem likely that the technology would serve the need, and other moments when it seemed unlikely that the communities would adopt the methods. But on the cusp of its official launch, the network has become quite real and the collective contribution of knowledge is respectful, aggregative, and exceptionally fresh and useful. Let's hope there are other such fully functional museum research networks.

Darren Peacock's account of the experiment in building an on-line community of knowledge in rural Australia stands in contrast to the multi-year, exceptionally well-funded effort of the RRN in Canada. Modest in its funding, local in its involvement, and deliberately quotidian in the knowledgebase it is constructing, Mallala demonstrates that the Web can serve as a vehicle for small groups to reconstruct their history. The project shows that the mechanisms for doing so are widely available, low in cost and easy to use. It reinforces our assertion that technologies don't make communities, but that appropriate technologies can give them voice. And it reminds us that important innovation can occur at any scale, though too often undertakings of national significance dominate our imaginations and constrain our efforts.

As the knowledge communities of which we are part expand, and the varieties of data they have collected proliferate, the complexity of tools to enable meaningful reconstruction of knowledge increases. The 130 institutional partners of the Library of Congress National Digital Information Infrastructure and Preservation Program represent one of the most complex inter-institutional networks for knowledge building we have yet seen in the cultural realm. So it is not surprising that some of the tools that they are deploying are not yet commonly used on the Web, even though they were developed to be deployed there.

The W3C Semantic Web Initiative (which Eric Miller lead at its inception) has created a framework that, with RDFa, can connect disparate content. But the marriage of those technologies with social annotation and visualization tools represents a departure from the purely technologically-driven futures of early Semantic Web visionaries. The provision of a range of visualization tools acknowledges that people need to make sense of data – imposing their views and then 'seeing' the results – before they can assist in adding content that will help future users make richer connections. And it recognizes that without those human-added elements, and the 'exhibits' that those users make, content could remain too opaque for reuse.

Importantly, in each of these accounts of knowledge construction, the cultural institutions take a backstage role, enabling but not controlling, supporting but not guiding, the content and content users. And in doing so heritage repositories become the beneficiaries of the release of creative forces as they and their publics find a way to make meaning, and allow collections to speak.

Because the stuff has a story to tell.

II. Stuff Telling the Story in the Stuff

The voices echoing in the communities that museums help create and sustain are grounded in things, in material culture, in stuff. As Aaron Straupe Cope illustrates, there is a possibly innate, certainly powerful, human desire to make meaning by classification. Child psychologists tell us that some of the earliest signs of cultural intelligence are displayed by the ways that children put objects into sets. Each culture teaches what attributes things possess and share. When we place things in buckets, we reflect those meanings.

Engaging audiences with a simple tool that lets them collect virtual things and put them in a personal collection is a proven strategy for encouraging interaction. Providing a true opportunity for people to 'curate' that collection, with tools that allow them to add their own interpretations, craft their own presentations, and manipulate what information is displayed, further empowers them to tell a story (as Miller noted earlier, in 'Recollection'). 'Exhibits' are the construct that correlates facets of content; the buckets we choose are the vessels that carry our narratives. By connecting objects in this way we're telling stories. But how do we carry metadata about connections back into the representations of the content itself? Cope illustrates – through numerous recent examples – that the activity of making connections between stuff, between stuff and ourselves, and between collections of stuff is a growing movement.

Finding things to put in our buckets is still a challenge. The results of searches in ArtsConnectEd, Nate Solas tells us, demonstrate how critical categories are those trying to search our collections. Simply put, he exposes how, if we make facets of meaning known to our users, they search better; if left to imagine what categories there might be on their own, their searches frequently fail. By providing pull-down lists of values for the facets upon which their searches could be qualified, we help users ask relevant questions and get meaningful answers.

So how else could museums provide views of their collections? What categories of knowledge could lead to meaningful insights when combined? Approaching a collection or an institution, how can a visitor know what it contains? Urban, Twidale and Adamczyk propose a simple but powerful idea – let's show them. The 'Collections Dashboard' allows the audience grasp the extent of holdings, for example, by object type, source, date of creation or discovery, or physical properties. The visitor is shown the collection along one 'facet' of the data, suggesting how the content can be used and what connections the user might be able to make. Future visualizations could enable users to locate their own meaning in the museum collections in a glance. In so doing the museum finds its audience, as members of the audience discover the museum, in the peculiarity of individual views and the specificity of their interactions, but especially in the way they interact with the museum presentation of its contents.

It seems odd that it is necessary to call attention to that content in discussing how the museum can best tell the story of what is in its exhibits. Yet Nancy Proctor makes a strong

case that in thinking about and delivering audio tours of museum exhibits, the content of those tours has not been given the attention it deserves. The technology has been blamed for failing to deliver a message, when the message itself was flawed. Examining the history of audio tours, she asks, how we can maintain a linear account that our audiences can cling to, without imposing on them our 'authoritative' understanding of the content? Could it be as simple as making open-ended rather than closed statements? Inviting people to think rather than telling them what thoughts are acceptable? In the design of audio tours and other mobile applications, can we replace the objective of learning 'group think' with a responsibility for coming to a personal understanding? Can it be as simple as listening to ourselves and censoring the pedagogy of truth in order to open the way for the pedagogy of discovery? Proctor argues that museums can retain the story line while still opening up the interpretive content if they subtly change their tone. We need – in effect – to stop telling our visitors what we want them to hear. Instead, we need to ask them to listen, in silences we create for the objects to talk back. We need to leave room for the stuff to speak.

III. Data Stretching Minds Stretching Data

If our data is to be encountered from many starting points, our metadata strategies must open as many windows as possible (for those search engine directed visitors to leap in through open windows and leave the same way) and our strategies for engaging audiences need to open as many doors as we can, so that visitors can find us from their favorite social site, from a collections aggregator. But we aren't likely to have resources to create different entryways for different users coming from different starting points. So how can we reprocess the data we have to make it more valuable to services from which user are coming?

Joe Dalton looks at traditional library cataloging data, which is notorious for demanding users know its subject classification system rather than trying to provide naïve users with access on their own terms. By deconstructing the laboriously constructed formal subject structures, Dalton finds (not surprisingly) that the raw materials for friendly access are present, and can even be combined with tags given to works in Flickr Commons. These are the same facets that Solas found helped searches, that Cope put in buckets, and that Miller and Wood notate with RDFa. Ranganathan is giggling in his grave.

Reaching the user involves more than putting the data in new places or making better search interfaces, it requires us to reconceptualize the relationship between the user and the data, and to give the user tools to enliven the interaction experience. Peereboom, Schreurs and de Vet report how they have taken the very traditional product of 15 years of research into Van Gogh's letters and re-configured it. They have provided the content with tools in a number of formats, to make their research results widely accessible for various audiences. Of course they are helped somewhat by the fascination we all share about Van Gogh's life, but 100 year old correspondence is not readily accessible even if we are motivated. Which of this grab bag of social media experiences will turn out to be attractive, and to whom, will doubtless be the topic of much future research. Will some find Van Gogh's letters so intimately engaging as to start writing back? *Dear Vincent …*

Such levels of immersion are the aim of many three-dimensional, virtual world realizations of museum exhibits. Few of us can imagine life in an ant colony, let alone feel we are living there. Everything about such an experience is alien. Cut-away, viewed through glass, ants have always fascinated children at natural history museums, but the reality of some colonies is so much more complex, massive and, it turns out, noisy. Using Ground Penetrating Radar to map the physical geography of these huge underground universes, LaFayette, Parke and Gallanter have created an immersive experience of being in a leaf-cutter ant colony. In an even more elaborate stretching of our minds in a second immersive environment, they allow us to stroll through a "natural" landscape that extends our vision into ultraviolet frequencies and our hearing into ultrasonic and infrasonic ranges. Utilizing everything science knows about animal experiences of the world, they are stretching the data with a set of tools that give humans access to a kind of knowledge they could never possess without such a simulation environment.

In the near future, such mixed realities will become common. Lemmens and Vanstappen introduce the augmented reality applications that allow archival architectural records in the Netherlands Architecture Institute to become part of normal human perception of buildings they depict. Although this augmentation is currently manifest on a discrete screen using overlays, the technology is no different from those that use custom spectacles through which a view of the world is inherently 'annotated'. And the annotation taking place is a two-way process with users contributing back to the museum to improve their views and add to the layers of meaning being conveyed.

IV. Build It and Keep Building It

Museums will continue to build new Websites, and the character of those sites will continue to change. Last year, the National Gallery, London, SFMoMA, and the Museum of Modern Art, New York, reported on major institutional projects to redesign their sites. As we said summing up their paper then, "the institutional Web site has not fundamentally changed purpose, even if its designers engaged non-museum actors in their design process". So we were not overly surprised this year when they reported that the CMS technologies they introduced did not revolutionize staff behavior or relieve the Web team of significant work loads, and that new Web sites did not result in massive increases in numbers of visitors. What is important here is to attend carefully to the ways internal work practices and systems subtly changed, and notice how the work of the teams was refocused. The emphasis in measuring success shifted – and in the methods used changed. Life goes on, workloads increase, expectations soar. Web sites don't wag the museum, but the museum is changing and increasingly sees the Web as a tool to meet new goals.

Many institutions, like the Whitney Museum, must make reduced effort a key entry in the list of objectives for redeveloping their Web site, since they have no Web team and no new resources are likely to be assigned. Their choice of iterative development on a wiki platform was dictated by those constraints. Yet the museum has found, to its delight, that the site created under these limitations is satisfying many other objectives of the redesign project as well. Staff can – and do – edit the site. Users can, and do, contribute content. The product was in fact iteratively deployed, and can continue to evolve. Simple tools and limited expectations can produce satisfying results.

Can some functions of museums own Web sites be served by collaborations between museums? Staff of the Indianapolis Museum of Art (and other partners) tell the story of the successful growth of ArtBabble which launched a year ago. It remains to be seen if YouTube will continue to see more (if different) users, and if additional art museums continue to join, growing the content at ArtBabble. What strategies can, and should, museums engage in to make their content more widely available? How does it all scale – both within the collaborative, and as museums participate in many collaborations? Is there any reason not to simply add more channels?

Increasingly museums view building audience on-line as process to be pursued through as many avenues as possible.

IV. Museums Finding Museums in Audiences

When the audience finds the museum, what do they do with it? Could we learn about ourselves by looking in depth at the in-depth uses others have for our content? Frankly, until recently we haven't looked too closely at the small number of people who use museum resources intensely, focusing instead on getting large numbers to use us (perhaps superficially) and gauging our 'impact' by that. In part this is because the tools for deep analysis are hard to use, and produce findings that are difficult to assess, as Seb Chan demonstrates in his detailed examination of the 'spreading' contents of the Powerhouse Museum. Looking at the way that content from the museum was actually 'cut and pasted' in other applications by outsiders, and the ways in which entire data sets that were made accessible to hackers were mashed up, Chan begins to provide flavor to a discourse that has only begun around what we are trying to achieve, how we are doing, and what kinds of uses our audiences value. We need to engage with this kind of metrics if we are to take value from the experiences of the few who use our resources intensively, but like them, we will need to invest substantially to obtain the benefits.

It is likely that these values will be as different as the collections we provide and the contexts in which they are encountered. So we may not be able to learn outcomes from others, only methods. Romeo and Waterson provide a case study of one in-depth use of the museum platform for contributed content and the museum as a collection, in their study of the National Maritime Museum Astronomy Photographer of the Year competition on Flickr. A particularly active community of users, driven in part by a competition and in part by their enthusiasm for the subject matter, contributed and judged images of outer space, participating privately and intimately in the activity of the Royal Observatory. How this contributed to the museums mission, and why this use by this audience is seen as worth the effort, is particular to the circumstances – though the lesson that narrow audiences can become heavy contributors and valued collaborators is general, and reflects the shift in perception of our role as museums, stimulated in part by social media.

Allen-Griel and MacArthur argue in that the communities museum efforts with social media are building are associated with the small town values of Gemeinschaft (based in personal knowledge) which are historically distinct from the values associated with the rise of museums in urban Europe and of expert knowledge and the professions (Gesell-

schaft). Identifying these sociologically distinct communities allows the authors to identify hidden values that attend to our new interest in the smallish number of actively engaged visitors and our growing appreciation for the rewards they find in their engagement. It also suggests, intriguingly, that there may be a very substantial shift underway as the cultural institutions we serve validate themselves increasingly by their relationships rather than solely by their authority.

As we move into a realm in which building these relationships takes priority, everything changes. Our tone softens and we become open to listening. Our collections become attractors, so we open them as much as we are able too, rather than confining our visitors to exhibits. We attend to where our visitors come from, where they are comfortable, and what they do elsewhere. And we allow them to take 'us' to where they are and share what they are interested in with others. All this we can already see happening. What further changes will we see?

References

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