Forum

A Research Vision for Museums

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Abstract
The museum family in America is in danger, and perhaps other museum families across the globe are, as well. Management has failed our mission by focusing on outputs like attendance numbers, and audience researchers have failed management by not shedding light on the connections between the pleasure of learning and attendance—or, if you will, between individual gains and a museum's public value. This research vision for museums looks at how you can make that connection and save museums in their hour of need.

The worth (public value) of museums is not clear, and managers do not have meaningful metrics to assess relative performance, aside from the shallow metric of attendance. Without what Jim Collins calls "key performance indicators," museums will not be able to move from "good" to "great" with assurance. Unlike libraries and schools, museum managers have no shared research framework. The field of audience research and evaluation has developed ways of assessing individual outcomes. Museum managers should work with audience researchers to find avenues for assessing museum impact and public worth, with a special focus on standardizing methods for evaluating the impact of museums on their communities, rather than just of an individual program on its individual visitors. This means a paradigm shift for the audience research field, but it may mean the salvation of museums in these troubled economic times.

After the "museum boom" of the Giddy Nineties, there are now more museums than Starbucks in America (AAM 2007)—yet many of them are struggling in today's economy and wired lifestyle. I am reminded of an image by Lewis Thomas from his *Lives of a Cell*:

> Viewed from a suitable height, the aggregating clusters of medical scientists in the bright sunlight of the boardwalk at Atlantic City, . . . have the look of assemblages of social insects. There is the same vibrating, ionic movement, interrupted by the darting back and forth of jerky individuals to touch antennae and exchange small bits of information. . . .
> Although we are by all odds the most social of all social animals, we do not often feel our conjoined intelligence. Perhaps, however, we are linked in circuits for the storage, processing, and retrieval of information, since this appears to be the most basic and universal of all human enterprises . . . . The

circuitry seems to be there, even if the current is not always on (Thomas 1974).

I have always thought that Thomas's vision of "conjoined intelligences" is a powerful way of building intelligence and wisdom through collaboration. Conjoined intelligence is scalable from two minds in synch, to a family, to a community, to a professional field, to a nation, and out to the global electronic village. If we're so wired for it, that conjoined intelligence must be happening, right? Yes—but in truth, not so much.

Think of the advances made in the last 20 years in other fields, such as science and technology, or the new ways history and literature are studied, or how libraries and public television are evolving their services in the Internet age. It's hard to say that advances in the museum field have kept pace. Are our museums more effective contributors to our communities now than they were a decade ago? Can we even say that our exhibits are better, even though we have another decade of accumulated evaluation and research documentation? As Kathy McLean asks, "Are we there yet?"

The Exploratorium, with support from the National Science Foundation, has discovered that clustering topic-related exhibits is an effective strategy to increase dwell time and retention. Why don't lots of museums adopt this strategy?

Now let's switch over to the museum management side of the aisle, where research is getting even less traction. What is the right size for a given museum in a given market? What share of the community should be engaged? What is the ideal employee count relative to annual budget? Although we can throw around some numbers, in most cases we have neither the data nor the formulas to depend on.

Of course, we have made progress, but it is relatively modest compared to other fields. The PISEC initiative (Philadelphia/Camden Informal Science Education Collaborative)—the seven factors for family learning—is one example of a researched advance that has been adopted. The result: institutions formerly geared to individual children are now oriented to whole families. Security, appearance, and universal design have also advanced: for instance, we are now greening museums.

The Need for Evidence of Public Value

But we can't say that museums have become better in their community impact—largely because we have no measure. We may have 30 years or more of visitor studies, but they don't yet connect to this question, which is critical to the field's survival: What impacts are museums as institutions having in their communities? What is the relative worth of a particular museum (not just an exhibit, film, or school program) as a community asset? We have uplifting stories, but no measurements. Libraries have answers to such questions, with verifiable and consistent numbers, plus uplifting stories. So do PBS affiliates. Schools are measured, and, regardless of what one thinks of No Child Left Behind, the scoring has worked to move schools through innovations in some dimensions.

Senator Tom Coburn (R-OK) and Representative David Obey (R-WI) introduced an amendment to President Obama's economic stimulus legislation to prohibit any funds going to museums. One version of the amendment stated:

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> None of the amounts appropriated or otherwise made available by this Act
> may be used for any casino or other gambling establishment, aquarium, zoo,
> golf course, swimming pool, stadium, community park, museum, theater, arts
> center, or highway beautification project, including renovation, remodeling,
> construction, salaries, furniture, zero-gravity chairs, big screen televisions,
> beautification, rotating pastel lights, and dry heat saunas (Coburn 2009).

Museums were eventually reinstated, but aquariums and zoos were not so lucky.
However, we don't hear Senator Coburn cutting off funds for libraries, schools, national
parks, and universities, which are considered essential.

Jim Collins, the business guru and author of *Good to Great: Why Some
Companies Make the Leap . . . and Others Don't*, observed that like great corporations,
great museums will be the ones that set goals and measure results, achieving
sustainability and growth by managing key performance indicators.[1] From a management
viewpoint, this approach makes a great deal of sense. Operating data provides real
information. Changes in operating data show direct impact on management's objectives.

So what are the museum family's key performance indicators? The truth of the
matter: We have no research-quality metrics on museum key performance indicators,
much less on community impact at an institutional level. I'm not even sure that as a field
we could define what those are, much less understand their quantities. Annual attendance
has been the most carefully watched metric, yet museums are pursuing far broader
community service objectives than simply moving visitors through the turnstile.

Attendance is a dangerously shallow metric measuring only volume, not impact.
A museum's IMAX® theater might increase attendance by screening *Avatar*, but what
effect does that have on its community impact? Management goes for *Avatar* because the
board and community judge management's performance primarily on the shallow metric
of annual attendance, and the extra revenue can support mission work.

Grant-seeking museums in Pennsylvania, California, and Maryland have lately
been filing their operating data in a standardized, on-line reporting system called the
Cultural Data Project, developed by a consortium of Pennsylvania funding agencies, led
by the Pew Charitable Trusts. Four more states are planning to do the same. In about two
years, when the recently signed up states are online, an estimated 34 percent of grant-
seeking museums will be reporting their annual operating data through the Cultural Data
Project.[2]

An initiative is underway to standardize museum-operating data nationally
through the Cultural Data Project reporting system and its help and telephone-support
lines. This may set the stage for national databases of key performance indicators. In
addition to informing management directly, this database will provide researchers with an
entirely different research tool. But that is a few years away, and the museum field has
troubles now. We also have work to do to get ready for this new data.

Current Research Silos

I make a distinction between the relatively pure and ordered house of *audience research*,
and the chaotic and money-tainted house of *museum research*. One of the big issues I see

is that most museum directors are not listening to audience research and evaluation findings from federal grant-funded projects. But they are listening to local market research firms, their own operating data, product development focus groups, quantitative interest and satisfaction surveys, and the findings from their most influential focus group, the board of directors.

We need to integrate audience research with museum research, and we need to do it conceptually, personally, and sustainably. If we can do this, the museum field will eventually have: a) a shared research framework and museum models that link individual learning outcomes with a museum's community impacts; b) a merged family of museum and audience research professionals who know each other and communicate regularly, and c) significantly expanded business opportunities for researchers once museum managers start to understand the value of integrated audience and museum research and expert interpretations.

The museum field has not moved forward on a consistent research framework. There are external reasons, such as differing governance policies and community expectations. There are shifting grounds: new types of museums and museum impacts. And there are internal reasons: Within the umbrella term of "museum and audience research" are "discipline silos" with competing values, methodologies, and objectives, as well as separate professional communities, departments within a museum, and funding objectives.

The most significant issue is structural. Most evaluation and research work going on in the CARE and VSA communities is assessing visitor outcomes (learning) and not community outputs and public value. Museum managers, on the other hand, are making decisions based on anticipated operating outputs and less on audience learning outcomes.

The National Science Foundation, National Endowment for the Arts, National Endowment for the Humanities, and Institute of Museums and Library Services have been the most successful at getting museums to shape up. We are an idiosyncratic lot; each institution and service provider is proud of its uniqueness and romantically inspired to chart its own identity. Yet that pride is standing in the way of advancing (and perhaps saving) our field.

We need to get rid of the prejudice that marketing and money are somehow separate from learning and mission. In a free-choice field such as museums, learning is what we are selling, and gate attendance is evidence of how many people are choosing learning. We need to accept shared frameworks for research. We need to share data definitions and ways of reporting and accessing them. Then we might be able to conjoin our intelligences and advance our museum family's community worth. So how do we do all that?

Museums' Need To Establish Worth

The late Stephen Weil, in his wonderful essay "Making Museums Matter," talks about a museum's worth to its community. He recognizes that some institutions can be more worthy than others, based on what they are capable of accomplishing. However—and he wrote this nine years ago—he is aware of museums' unease with being held accountable:

. . . the awkward fact still remains that, for a variety of reasons, the museum field has never really agreed—or, at least until recently, has scarcely even sought to agree—on some standard by which the relative worthiness or merit or excellence of its constituent member institutions might be measured (Weil 2002).

The intellectual challenge is to shift the evaluation of the impact of specific programs on target audiences to the impact of the whole collection of programs on the whole community, and to connect that impact to a sustainable business model. Al DeSena at the NSF observes:

Many have a difficult time making a strong case for how their proposed projects will be sustained after grant funding, let alone whether the work will contribute to the sustainability of the organizations. It's in everyone's interests to have a way of connecting the dots of the "system" between project viability, organizational vitality, and field-wide advancement.[3]

We evaluate individual exhibits and programs on whether they achieve their objectives, which often involve communication of what Beverly Serrell calls the "big idea." Museums, however, may be playing a different game, one more focused on process than content. A museum's crucial and essential role in the community may be as a facilitator that allows visitors to do something meaningful for themselves and others.

From the museum's perspective, what is important is that learning is going on, civic connections are being made, identities are being shaped, ideas are being inspired, and role models explored.

The Role for Logic Models

Some are using logic models—a sequence of boxes moving from left to right, showing the logic of how social needs connect through resource investments, activities, outputs, then to outcomes, and finally to social impact. There are also network and other models that can help plan and then evaluate projects and systems.

A useful logic model is presented in Gary Silverstein's section in the NSF's *Framework for Evaluating ISE Projects* (NSF 2008). It shows the logic sequence for the Informal Science Education division. It makes clear how worth can be evaluated in terms of whether Informal Science Education projects are "advancing the informal education field."

But what about the logic model for a whole museum, or even for the museum field as a whole? What needs are museums responding to? What resources do we bring? What are the activities, outputs, and outcomes we expect? What are the broader impacts of museums in America? If we had such a logic diagram for a single museum or for a category of museums—or even for the whole field—we would have the tools to evaluate our worthiness.

This seems like a good idea, so why can't we have logic models for museums? Perhaps we need to start with individual museums or one sector of the museum field, then see if aspects of the model can be generalized. To adopt a shared logic model, we need to

start the process by invoking the humility to say, "Yes, that other person's idea is good, and let's build on it." Or the greater humility to say, "Before we try to invent something ourselves, let's see if there are best practices and standardized frameworks that we can adopt."

Each museum will have a distinct logic model, and, for many, this is the right place to start: develop logic models for those specific museums that seek an institutional evaluation framework to monitor yearly efficiency and impact.

Next, imagine a collation of several hundred of those museum-specific logic models—all the needs together, all the resources, all the activities, all the outputs, all the outcomes, all the impacts in long lists. Would we see patterns and groupings? Would we be able to roll up the detail into useful categories?

The debate, however, is beside the point. Outside pressures like federal and other large funding agencies are forcing shared evaluation metrics, imposing a field-wide logic model by default. This is what happened to American schools after No Child Left Behind.

The museum field's logic model, or research framework, if you articulate it first, is likely to seem to have been here all along. It will not fit all museums, and it is likely to be somewhat vague—dare I say generic? But it may fit those museums which choose to live by museum accreditation standards.

The Museum Logic Model

An outcome-based logic model for a museum can be the basis for evaluation: for trying out theories, monitoring trends, and focusing research. Using logic models for museums will be a big step forward in organizing ourselves as a field and will provide us with key performance indicators. The challenge is not about creating the logic model. The real challenge is to get everyone to adopt one set of shared standards. And the only way museums will embrace their shared standards is if everyone is involved in their creation and development.

Today, education and community building are widely accepted as museum purposes—although there are plenty of museums, formed in previous paradigms, that continue with other purposes. Additionally, new purposes are emerging, such as workforce development, civic identity, and increasing tourism.

Museums are about positive change. We look out to what our community needs, and we use our resources to make positive changes and so earn public value by addressing some of our community's needs. Our logic model must build on our strengths, which are more than just the collections, buildings, and staff. Museums are unique among other free choice learning organizations, like public television and libraries, in that our learning services are based on what John Dewey called learning from experience. Experiential learning happens in real time, and in a physical context, not on a small screen or printed page. Learners put their hands on a Van de Graff generator and their hair stands on end. They enter a Holocaust boxcar and feel a chill. They enroll in a teen intern program and advance their job skills.

Prior Work

In "The Great Sustainability Challenge: How Visitor Studies Can Save Cultural Institutions in the Twenty-first Century," Alan Friedman observes that three interacting dimensions are critical to museum sustainability: financial, intellectual, and social. He urges the visitor study community to undertake evaluations in all three domains as a way to save museums (Friedman 2007).

An attempt to standardize evaluation was made in 1997 by the Museum Learning Collaborative (Schauble et al. 1997). This system contained a lot of thought and experience, again reflecting the same desire to integrate and standardize our evaluations. *In Principle, In Practice* also articulated a new direction for research practice and informal learning (Falk et al. 2007).

John Falk and Beverly Sheppard have a similar thought that establishing evaluation criteria is critical to museum sustainability, and they list four evaluation categories: Public Value, Internal Value, External Value, and Resources and Finance (Falk and Sheppard 2006). There is also the triple-net evaluation system, not to mention formalized systems by the IRS and the Cultural Data Project.

Recently, when I was complaining about the disconnect between management's focus on outputs and evaluators' focus on outcomes, Barbara Flagg had the kindness and brilliance to connect the two mathematically. In what I'll call Flagg's Equation, Impact equals Outputs times Outcomes. The principle is simple: if your research sample is truly representative of the whole (a big "if"), and if your evaluation shows that, say, 65 percent of the sample has retained the program's key nugget of information, then the total attendance for that program can be multiplied by 65 percent, to quantify its community impact. If the attendance is one million visitors, then you could say that 650,000 people got the message, and in so doing, measure the impact of what you are evaluating.

The Flagg equation hypothesizes that scaling up our findings on individuals might be a way to calculate a museum's impact on its community. The hypothesis could be tested with some research. Martin Storksdieck points out that the real challenge is getting a sample that is truly representative of the whole million visitors.

Museum management, particularly at larger museums, already uses research to inform decisions. For instance, traveling exhibitions are judged on operating data from previous sites, as well as specific market research related to marketing and positioning. However, there is no community of practice for museum research. Each new museum director has new thoughts, and board members offer research pro-bono. There are promising pockets of standardization on the operating data side, but few shared frameworks and many short memories.

The audience research side is operating with much more conjoined intelligence than museum research. Thirty years after Chan Screven, Marilyn Hood, Stephen Bitgood, George Hein and others started studying visitors scientifically, the field has matured, and is ready now to take on larger challenges. Visitor researchers have built a strong framework for learning research. It's possible to know if learning is happening and if the intended learning outcomes are met. For over thirty years, this community of practice has been coalescing into a professional field. There is a secret language, like double-blind, front-end SurveyMonkeys. And there are conferences and peer-reviewed journals—just like the ones aimed at those scientists in Atlantic City.

Museum research uses a significantly different methodology, one that adheres to accounting and financial record-keeping standards. Through operating data, we can look at an existing institution—measuring its temperature, if you will—in such areas as number and length of museum learning engagements in a year, ratios of staff and volunteers, facility size, sources of revenue (both earned and support), and such institutional character indexes as staff turnover rates and the number of community partnerships. But this vast supply of revealing data typically has its brief moment in the sun, perhaps for a board retreat, and then vanishes.

A Museum Research Vision

My research vision for museums is that we work together to save museums in this caustic economy. To achieve this vision, we will need to:

- Dismantle the silos separating categories of research, and work together with respect.
- Merge audience and museum research in order to advance learning and institutional impact.
- Recognize and build upon the prior work of our peers by creating museum evaluation models to frame and connect our research.
- Standardize research definitions to compare and publish meta-data.
- Expand professional and organizational skills to embrace both audience <u>and</u> museum research.

Some of the outcomes from the successful merger of museum and audience research and their conjoined intelligences include:

- Healthier museums.
- A broader, more exciting, more essential, more influential, and better-paid professional life.
- Substantial advances in the real and perceived value of museums in America.
- And (citing George Hein), better museums that help build a better and more democratic society.

The challenge is to incorporate *museum research* as another interdisciplinary source of evidence to improve our understanding of how free choice learning works in the marketplace and how we can make it work better.

Mary Ann Munley neatly articulated the paradigm shift as "a shift from the focus on individual change to a focus on social change while connecting the dots between the two."[4] Saving museums is not a trivial task, but if we can conjoin our intelligences in a marriage of aligned minds, it will be an exciting adventure.

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Acknowledgment

Notes

1. Jim Collins addressed the Association of Children's Museums Conference in 2008.
2. Phil Katz, assistant director for research, American Association of Museums, email to the author.
3. Al DeSena is the program director of the Informal Science Education Program, National Science Foundation. He made this observation in a White Oak Associates' Forum in 2006.
4. Mary Ellen Munley, principal of MEM and Associates, email to the author.

References

American Association of Museums. 1992. *Excellence and Equity: Education and the Public Dimension of Museums*. Baltimore, MD: Collins Lithographing, Inc.
———. 1999. *The New Museum: Selected Writings by John Cotton Dana*. Newark, NJ: The Newark Museum Association and the American Association of Museums.
———. 2007. *Annual Report.* Washington, D.C.
Coburn, T. (Senator, R-OK). 2009. Amendment 309. Accessed May 2, 2009 at http://coburn.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id =f52e138c-d7d2-496d-be5c-a5e3ca74ab42.
Durel, J. and A. Durel. 2009. 2009 will be a pivotal year for museums and nonprofits. American Association of State and Local History Museums. *Dispatch* 24 (2) (Feb.): 1, 7.
Falk, J. H. and B. Sheppard. 2006. *Thriving in the Knowledge Age*. Lanham, MD: AltaMira Press.
Falk, J. H. and L. Dierking. 2000. *Learning from Museums: Visitor Experiences and the Making of Meaning*. Walnut Creek, CA: AltaMira Press.
Falk, J. H., L. Dierking and S. Foutz. 2007. *In Principle, In Practice: Museums as Learning Institutions*. Lanham, MD: AltaMira Press.
Friedman, A. J. 2007. The Great Sustainability Challenge: How visitor studies can save cultural institutions in the twenty-first century. Visitor Studies Association. *Visitor Studies* (May 27).
Hein, G. E. 2006. Museum education. In *A Companion to Museum Studies*, S. MacDonald, ed. Oxford: Blackwell Publishing.
National Science Foundation. 2008. Using logic models to identify desired impacts and audience objectives. *Framework for Evaluating Impacts of Informal Science*

Education Projects: Report from a National Science Foundation Workshop, G.
Silverstein, author, 35-40. Washington DC: National Science Foundation.

Schauble, L., G. Leinhardt, and L. Martin. 1997. A framework for organizing a
cumulative research agenda in informal learning contexts. *Journal of Museum
Education* 22 (2 and 3): 3-8.

Thomas, L. 1974. *The Lives of a Cell*. New York, NY: Bantam Books.

Weil, S. 2002. *Making Museums Matter.* Washington, D.C.: The Smithsonian Institution.

Weil, S., ed. 1999. *The New Museum: Selected Writings by John Cotton Dana.*
Introduction. Newark, NJ: The Newark Museum Association and the American
Association of Museums.