

A New, Additional Format for Changing Visitor Experiences

An open call to museum leaders from

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A new format for changing visitor experiences is now possible given advances in museum research and practice, new audience expectations including participation, and matured digital technologies. A new business model may be necessary to sustain science centers and museums in a more restricted capital and operating economy. The new third format and its business model should combine the best of traveling exhibitions (TE) and giant screen (GS) films, and strive to achieve their original box-office impacts. But the innovation should bravely create a new and distinctly different kind of changing museum experience -- a new presentation format combining immersion and interactivity into a new platform for STEM learning, revenue generation, and museum vitality.

In 2013, three leading science museum service organizations – Roto, MacGillivray Freeman Films and White Oak Associates – collaborated on an opportunity assessment of this idea. To explore the technical and financial feasibility of the concept we developed and quantified a testing model called the *Exhibition Transformer*, and the principals presented the concept to over fifty museum leaders at over thirty five North American science museums. While we had specifics for moving forward, our main interest was to collect feedback, now distilled into this article. We are grateful to all who responded and talked with us, including several strong supporters and potential founding museums. In 2014, we asked Informal Learning Experiences to add their expertise and wisdom to our science museum-focused team in order to have expert representation from all relevant fields: interactive exhibits; GS films; traveling exhibitions; global distribution; marketing, and museum strategic planning and economics.

This article reports on the results of the opportunity assessment, on the evolved concept, and on the next steps for developing a collaborative, museum-centered model for changing visitor experiences. The authors are motivated to help the field innovate through dialogue and collaboration, regardless of the future of our own ideas or business interests. The next open discussion will be at AAM 2014 - see the end of this article for details.

Findings from the opportunity assessment

Our conclusions from the opportunity assessment are that something like the Exhibition Transformer is now possible, and that forward-thinking museum leaders see the need and the potential for some version of the format. The group agreed with the need for new ways to change marketable content and experiences sustainably; they also agreed that the museums should define and control the format. They liked the show ideas and the green approaches, saw how ET shows could complement GS films, and felt the team was uniquely capable.

However, some of the specifics of the first Exhibition Transformer (ET) version met with resistance. The ET was positioned as an alternative to traveling exhibitions, thereby facing entrenched expectations for what makes a compelling/successful traveling exhibition, competing with future bookings, and going up against the large and well-financed TE supplier sector. The ET costs were too early to test, as museums needed to think about the business potentials of the new concepts. We also found that board-level fear of risk, a long decision time, and conflicting capital campaigns and priorities precluded most museums from acting quickly on an investment involving risk. While several were willing to sign on to the proposed process, most were unwilling to meet the schedule and hesitant about commitments. There was also a hunger for seeing a prototype.

Despite those issues, the four organizations thought there was enough interest in the core idea to merit evolving the concept and then convening interested museums to collaborate on addressing these issues and defining the next steps toward a museum-centered new kind of changing visitor experience.

The evolved *Exhibition Transformer* concept

What are the elements of the core idea? To take advantage of this input and other recent trends, the new format should:

- Combine the strengths of immersion from media with the interactivity and participation of exhibits in an orchestrated sequence of different kinds of walk-through experiential spaces filled with opportunities for hands-on interactivity and social participation.
- Develop a base platform of exhibition infrastructure to be inexpensively replicated for permanent use by each individual participating museum, the equivalent of the screen and projectors in a GS theater.
- New engaging visitor experiences (“exhibitions” or “shows”) are produced primarily from digital content with a small amount of physical materials, which can then be shipped to multiple locations globally in unlimited copies with no schedule constraints – each museum can “book” a show whenever they want and run it for as long as they want, and everyone can show it at the same time.
- Each show is its own highly-marketable, unique visitor experience, as the “platform” of structures and hardware can be vastly reconfigured, and indeed has been designed from scratch to maximize flexibility and the power to “transform.”
- Start with enough founding members – a “network” -- to amortize the format’s development costs and establish a large enough inventory of compatible museums to support on-going show production. Make sure these founders are rewarded for their innovation and risk.
- Rely on the founding museum members, informed by the team of experts, to decide on the overall size and business model. Give the founding museums the control and cost benefits they have been losing in the GS and TE fields.
- Reverse engineer a business model that provides balanced, sustainable ROIs all along the supply chain – favoring museums, yet encouraging private investment in upgrades and new shows.

- Produce at least two or three shows, along with a sustainable business model for future show production.
- Maximize flexibility by making the format demountable, storable and/or installable in satellite and touring locations.

Why now: Recent environmental changes make a new format possible and promising

Museum research and evaluation have helped us prove and improve informal learning. From GS films and fulldome productions we see the impact of immersive experiences on STEM awareness, attitudes and behavior, and from interactive exhibits we see STEM learning outcomes like understanding and skill development (NRC, Bell, et. al. 2009). What we now know about family learning (PISEC, Borun, et. al., 1998), extended engagement (APE, Humphrey, et. al, 2005), and dimensional learning (Sumners et. al. 2008), for instance, can now inform the design of the new format.

Yet we need to know much more about informal learning, especially in physical environments (Fraser, Jacobsen, et al. 2012). Advances in retail and domestic sensors can also handle evaluating outcomes and time and tracking studies. A new format can have built-in evaluation tools that track visitor counts, dwell times, exhibit engagements and learning outcomes, thereby increasing its value to grant-funded research and adding new knowledge.

Museum practice has developed expertise in selecting, managing, launching and marketing GS films and TEs, and this existing infrastructure can jump-start a third format. Audiences want even more change and new experiences, and museums need to stay relevant. A new additional format should address both these needs by offering visitors more marketable change and by presenting current science at the moment it is relevant around the world.

Given ASTC’s global aspirations, ASTC member museums have become well aware of the global network of their peers, and their GS theater managers have been working globally for decades. STEM learning is a global cause, and the new format should think globally, yet allow each museum its local roots. Shareware, social media and other collaboration software allow teams to work together virtually, and many museum networks (NISEnet, COVES, Dome Alliance, etc) have established precedents for museum collaboration on a new format. Globalization, collaborative software, and museum networks permit new ways of developing a new global format and its changing visitor experiences.

Audience expectations and interests have evolved. People expect to interact, talk back and participate in events and experiences (Simon 2010). Today’s successful experiences are *engagements*, which NSF AISL distinguishes from one-way *understanding* as a two-way *dialogue* with both sides actually listening to each other, responding in customized ways, and potentially changing behaviors. (McCallie, et al 2009). Audiences engage with global social media, which have become viral forms of getting out the word and creating buzz, as well as very targeted ways of reaching fans of a show topic. The new format should engage visitors in two-way interactions, like citizen science experiments, family projects, oral history campaigns, and issues forums. The shows should be active players in social media, forming deeper relationships with visitors and non-visitors, and its new show topics should be able to move quickly from vision to global release in order to be timely and relevant.

Digital media and information technologies have matured and stabilized in many areas, and the visiting public has developed interface skills and comfort with mobile phones, web site navigation, game controls and numerous other human computer interfaces. In museum exhibits, stable media interactives tend to require less maintenance over their lifespan than many mechanical hands-on interactives. Whole body gesture-based media have matured, with great potential for merging immersion and interactivity in memorable engagements. Live data from exclusive sources are available to view on large scale walls, or interactive table-tops, or on dome screens, or on a science-on-a-spheres. Fully exploiting the power and stability of new forms of digital interaction to convey content and deliver immersive learning experiences should be part of the new format.

The potential of branded digital intellectual property (IP) and live big data should also be included. Content and data developers as diverse as NASA, Getty Images, TED, Disney, YouTube, the BBC, the *Star Wars* franchise, the Center for Disease Control, the Museum of Television and Radio, NOVA, and the Howard Hughes Medical Institute have IP they could provide show developers. Visitors, especially fans, will be drawn by both the brand trust of these names and the opportunity to immerse themselves and interact with their big data and unique and/or historic images, footage, music, personalities, journeys and games in the experiential, social and physical setting of the new format. In place of the big screens offered by GS theaters or the rare objects offered by TEs, the new format can offer unique experiences exploring popular and trusted brands: *Music and the Brain*, with the Neuroscience Research Center and Apple Records; or *Where do I Stand?* with the National Census and Gallup Research or *Cosmos: the Interactive Experience*, with Neil deGrasse Tyson and JPL/NASA.

The challenge to the field and encouragement to lead

The potential of a global network of compatible venues sharing a growing library of visitor experiences drives the vision. To start, however, the new format has to be successful at a handful of founding museums - our last business model said seven to ten were needed.

The development of the format faces two challenges, both addressable by decisions to be made by museum leaders: 1) finding the right integration of the format's unique value proposition, product design, price and supply chain, and 2) gathering enough founding museums to establish a seed network, sustainable in its own right, but benefiting should it grow into a global network. The first challenge can be addressed by agreeing to provide the museums' perspectives to the design and business modeling for the format, and the second by museum leaders agreeing to participate with other museums and the authors in collaborative discussions that may lead to some of the museums electing to be founding museums and members of the ET Network.

The ASTC 2013 meeting was the first discussion, and we spoke with over 35 museums, inviting only North American ASTC museums over a certain size. This article covers the evolution of the idea since that opportunity assessment phase. The greatest interest was from ASTC museums that already operate TE galleries and/or GS theaters; mid-sized museums were most interested.

Now, we are expanding the discussion beyond the ASTC sample to welcome any museum from anywhere, and we have a collaborative process in mind for developing the format, with all options open.

The second round of discussions – the policy guidance phase – will be held at the AAM 2014 Conference in Seattle on **Sunday, May 18 from 9:30 am to 11:00 am**. Museum leaders – specifically museum CEO's, CFO's or exhibit, program and marketing VP's, no more than three per museum -- are invited to provide the authors with their guidance on the following strategic questions: What do you hope the new format might do for your museum? How do you see using it? What are the most important aspects to get right? How might enough museums make enough of a commitment to move the format forward? How do we start and fund an ET Network of founding museums? There will be some poster boards around the room, but the focus will be on hearing from museum leaders.

To receive directions to the meeting location, **please RSVP with Dana Russell (drussell@roto.com) by May 15, 2014**. The authors look forward to continuing the lively and promising discussion started last fall.

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