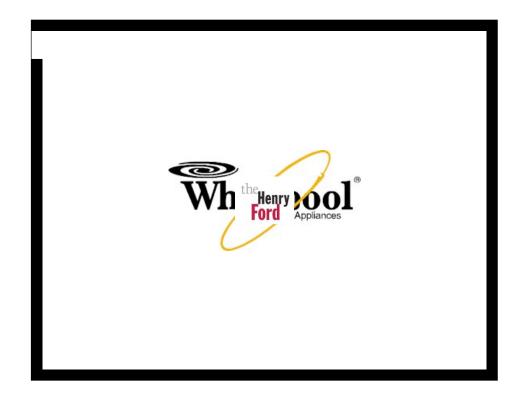


Hi and welcome. I'm terribly sorry I can't be there in person. The travel situation got out of hand yesterday between Oakland, Chicago and New Hampshire and I was unable to make it work out.

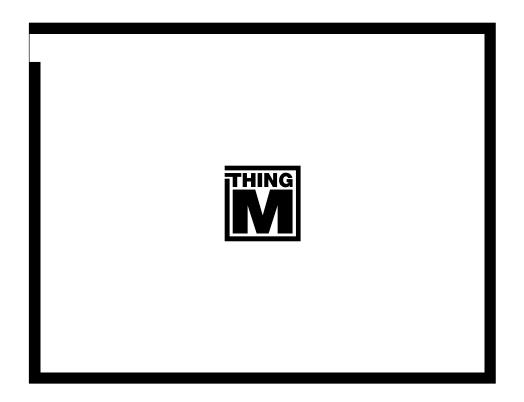
Christian asked me to come to this event to introduce some emerging technoogy and give you my take on how you could use some of this technology In general, I'm hoping to provide you with some ideas that may help you ask some questions and identify the issues that your institutions, whether that's attracting more visitors, keeping them longer, or increasing revenue through some other way, such as sharing information.

Christian gave you a good idea of my background, but let me tell you a bit more about who I am and what I do.



I am a consultant specializing in the user experience research and design of emerging technologies. What that means is that I spend a lot of my time thinking about the relationship between technology and people. My core philosophy is that making technology is easy compared to figuring out what technology to make, and that's driven by understanding people.

Over the years, I've worked with many different organizations to help them develop technology with people in mind.



Last year I started a design and research company called ThingM that specializes in the relationship between information systems and objects.

Our first client is The Henry Ford.

So excuse me if I draw conclusions that don't match your experience. I'm here to more to pose questions than provide specific answers.



Let me tell you a bit about how I got here. Two and a half years I visited the Henry Ford for the first time in 25 years to catch up with my old friend Christian. I was telling him about the kinds of work I was doing, and while we were standing in front of one of the exhibits, he told me about his vision of designing museum experiences tailored for many different kinds of visitors. We started talking about Minority Report, the 2002 Steven Spielberg film. In it, there's this great scene where Tom Cruise uses this transparent vertical overlay to get additional information about specific items. Like an information space overlaid on the world. What if you could overlay all kinds of information on artifacts? A retired furniture designer and a group of 12 year-olds on a class trip could get different experiences with the same artifacts, experiences that were deep, moving and made them want to come back.

Christian and I talked about this over the intervening couple of years and last year, Christian suggested that your group may be interested in some of the ways that technology is changing the nature of experience design.



Let me show you one such example. This was a video shot about 3 weeks ago in Disney's California Experience park.

[ Click on link for YouTube link to http://www.youtube.com/watch?v=owJGRvo0y\_g ]

As William Gibson, the science fiction writer says: the future is already here, it's just unevenly distributed. This is a view into Disneyland's future, one where technology allows people to have a much richer relationship with their amusement experience.

I'm not suggesting that your museums should be Disneyworld. That's clearly not the value that your museums provide, but I think it's an interesting example of how to use technologies to create engagement that fulfils the basic goals of an institution.

Disney's institutional goal is to create magical experiences. A device like this is an creates that kind of magical experience. There is no obvious person operating it, and it's not a college student in a Goofy suit. It's an example of the tactical use of technology to create an experience that's at the core of an organization's values.

You can see that they were successful. This video was shot using a mobile phone and immediately uploaded to YouTube by a really excited visitor. 20000 people have looked at it since it was uploaded 3 weeks ago. Moreover, the Disney designers of this project are answering questions about it ON YOUTUBE, which is a relationship between an institution and its visitors that breaks many of the traditional models of where the experience starts and stops.



I started to think I started to think about how these kinds of technologies relates to more traditional museum experiences. This is from a history museum in Cayenne, French Guyana. I think It represents an old fashioned, but still widespread, perception that people have of history museums. Dusty vitrines of things with no explanation or relationship between the objects. How does this connect to visitor's lives? Barely, I suspect.



Here are some snapshots of Billings Farm I pulled off of the Flickr photo sharing site. This is how people document what they actually experience.

How can you get them to value the experiences enough to seek them out and expend their resources, their time, money and energy to have them.



Let's start by talking about demographics.

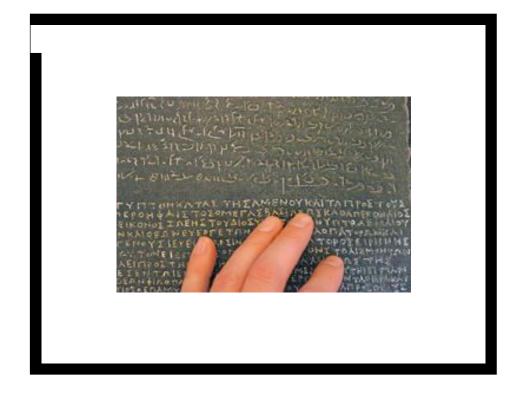
The baby boom began in 1947. Those folks turn 60 this year. There are two facts about this generation that I believe affect your industry: 1947 is when Levittown, New York was built. This generation of Americans may have no nostalgia for pre-suburban life because they may have no direct connection to that life. 1947 is also year that the transistor was invented, They have no experience of a world without all-pervasive electronic media.

When they're planning activities with their grandkids, for example, they have to weigh a lot of factors of what would be interesting to them and the children. The experiences they find meaningful because they're familiar may not be the endpoint of a car trip with the family to a location several hours away. The things they may find relevant are likely to be based around their experiences in a suburban, media-rich existence, And every generation after them has a similar perspective.

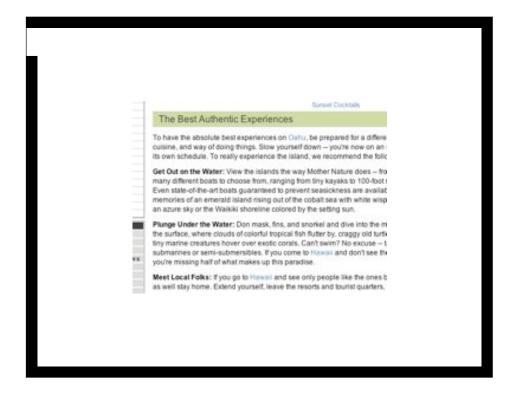
In a sense, what I'm saying is that your competition is media, or, specifically, television. TV is probably 3 orders of magnitude more convenient that driving to a place, reading and walking around.

How do you overcome that 1000-fold difference in convenience? How do you tell people that the real thing is not just 1000 times better, but 10000 times (because you can't be just as good, you have to be a lot more interesting).

Flickr photo from: slange70



- The history museum's advantage relative to other activities is direct exposure to real artifacts and experiences. You provide the examples on which explanations of contemporary life, politics, industry, etc, are based. People's understanding of "here and now" starts with "there and then." You're the there. A couple of writers in a paper I recently read enumerated the advantages museums have over simulations:
- 1. the resolution is greater (the physical experience lets you can see the grain the wood, smell the hay, etc.)
- 2. scale (seeing a picture of a barn and being in it are two different physiological experiences)
- 3. value (the pricelessness of certain objects means there people can be in the presence of something that's REALLY EXPENSIVE)
- 4. authenticity (there are a lot of early 60s Lincoln Continental convertibles, but Kennedy was only shot in one of them, there are a lot of villages in Virginia, but General Lee only surrendered in one of them).
- Of these, I think the experience of authenticity is most important, and is what I'd like to focus on. It's the one thing that you can't reproduce in media, no matter what. You can see a picture of the Rosetta stone, but that's different than seeing the real thing in person. This one is fake and, I believe, it's right next to the real one, so you can get the physical experience of touching the Rosetta stone while looking at the real Rosetta stone. The fake one wouldn't be nearly as interesting without the real one right there.



People clearly want authentic experiences.

2005, which is the most recent year I have data for, had the greatest number of international tourists in recorded history: 800 million people crossed borders for fun in the largest movement of people across national borders, ever. They were crossing for many reasons, but I believe authenticity of experience was high on the list.



This building was not on many people's itineraries. Can anyone identify this? Yeah, it's a mid-70s office building. It has some nice lines, the plants on the roof are an interesting decision, but overall, it's is not special.

This is the Xerox Palo Alto Research Center.Here they essentially invented the graphical user interface to computers, the word processor, the laser printer, and computer networking, among many other things we use every day. They basically created a big chunk of the contemporary Western world here. There's only one of these and it's a national treasure, or should be.

But you wouldn't know that unless I told you. And that's the catch of authenticity. It's dependent on context. For authenticity to have value, there needs to be a context that communicates that value.

Photo: dirk@riehle.org

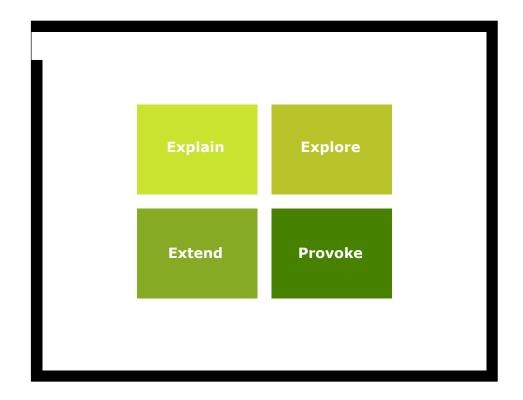


And that's where I believe technology comes in.

I believe that new digital technologies can greatly lower the costs of communicating the value of authenticity. In other words, they can tell you what makes the real thing REAL.

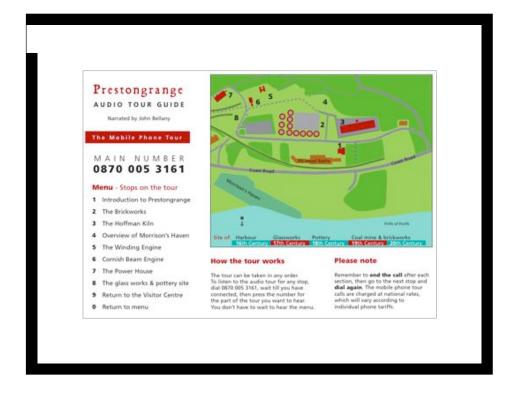
OK, that's the high-level analysis. Let's look at some specifics about how this plays out with actual technologies. For the Henry Ford, we researched more than 30 projects from a variety of museums in the US, Europe and Asia which used new technologies to try to enhance the museum experience. The projects we focused on were about ways to customize content. However, at their core, I feel they're all about reconnecting people to authenticity, finding the unique message that tells visitors why THIS thing is important to them, right now. And I realize that that may be basic museum experience design, and certainly easier said than done, but it was a profound insight for me.

Photo by kansasexplorer



Today, I'm going to look at four projects. One in each of the categories that we used to organize all the projects we looked at.

Explain
what is this? ex: Antenna Audio,
Explore
where should I go next? ex: My Rijks, REXplorer
Extend
how can I preview/follow up on this experience? ex: Exploratorium
Guidebook; Caterpillar Mobile
Provoke
who can I share this experience with? Imprints, Sotto Voce



## Explain

This is a mobile phone based tour of a Scottish Industrial Revolution-era historical site. It works just like a regular audio tour, but without any equipment to lease out. Visitors call the phone number and dial one of 10 explanations of what they're looking at.

Here's a slightly more technology complex device-oriented approach. [Play Rocon Tours video]



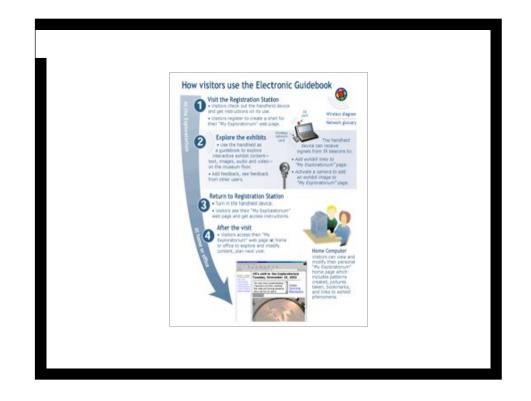
## Explore

This is a still from the a project in Regensburg Germany called REXplorer. The whole village of Regensburg is a historic site and one of the few German towns to be undamaged in WWII.

They were interested in ways that people could explore the place and understand its history, so they came up with a location-based game that uses the town as its gameboard. They used mobile phones with GPS location capabilities and embedded them in a wand that's kind of like the Nintendo Wii controller. The game premise is that there have been paranormal activities around town and people are scientists sent out to investigate these activities. When they get near a building or area that has historical significance, their wand makes a noise. The phone then starts talking in the voice of a ghost that gives them some history of the place and some more content of the game. They then have people perform gestures with their wands to banish the ghost and then earn a point. The gestures are based on a 17th century secret script that's found on the back of a gravestone, which (I believe) is where the tour ends.

It's actually been deployed and is scheduled to start being leased to tourists for 10 euro later this year.

[Play video]



## Extend

This is a page from the Exploratorium's Electronic Guidebook project, which was an attempt to extending the museum experience before and after the actual visit. The idea is that visitors carry a device during their visit which gives them additional information, but equally importantly, everyone who participates automatically gets a personal web page of the things that they saw, of photos of themselves doing the experiments and of additional information about the exhibits. This was focused to work best for teachers, and the value that it presented was found to be in helping teachers prepare for their visits. Such devices, like PDAs or, like this one, small computers with primarily screenbased information don't seem to have a good track record in practice, even though lots of people have experimented with them. They distract from the artifact, which undermines the point of the tour, they're expensive, they're fragile, they require people to figure out how to use them and, as the teachers in the Exploratorium experiment found out, there's just not a lot of time to look at them when there are dozens of excited kids to pay attention to.



## Provoke

This is a project designed to provoke questions, ideas and, conversations between children about objects in a historic environment.

Chawton House, which once belonged to Jane Austen's brother Edward and is the Centre for the Study of Early English Women's Writing. Their focus is using the house and gardens as a way to help children explore storytelling. The kids do an activity where they walk around the house and grounds and write a story together. They have a device with them that guides them and serves as a kind of smart notepad. "Teachers leave instructions and activities for the children at various locations around the grounds, along with selected audio clips created by the curators." The device plays this informaiton when the children go to a certain location. The children can also record their own voice annotations and the device will note down where they were when they recorded the annotation. In the end, the device creates a kind of web page notebook for each pair of kids with information about the places they visit and with their own voice annotations. The children then use that information as notes when create their own stories.



Now what do all of these projects mean? I think that the greatest value that new technologies can provide is that they can communicate the content and stories you already know to be important. It can communicate significantly more flexibly than wall text and significantly more scalably than interpreters. You will probably never replace a good interpreter, but with technology you can broaden the base of how many people can have access to that kind of personalized information.

To me, the key technologies should do two things:

- 1. Present content in a customizable and flexible way, so that you can have different messages for different audiences.
- 2. Present content to the broadest group possible, this means it needs to be inexpensive to implement.
- Today, this means that the technologies of choice are content databases, the Web and mobile phones, and that's where I really recommend you invest your resources and energy. The Web is a highly mature content delivery technology, not just as familiar web sites where you have a page with links that goes to another page with links. Web sites reached with browsers are just one way or many to project what's essentially a database of content. You can use the same content in a site, on a phone, or interpreted through someone else's web site. You can use it to inexpensively address the concerns and desires of multiple audiences simultanously.
- I believe phones are a really underused technoogy. Nearly everyone has one, they have a bunch of interesting capabilities with their cameras, speakers and ability to connect to the Internet. New capabilities are appearing all the time. GPS is now pretty much standard in new phones. iPod-like capabilities are going to be common in the next two years. Moreover, mobile phone companies are always looking for excuses to get people to use their phones, so I bet there's funding available for content development. I think there's a lot of potential there for telling multiple stories simultanously.
- Finally, I think that all of this discussion is pointing at a new way of thinking about your relationship to visitors. Technologies are but messengers, and I think the core message that they carry is that relationships to museums are changing in light of a highly competitive marketplace for people's attention. Used strategically, they can lower the costs of communicating the value of authenticity, but that has to be part of a broad strategy to understand who is your audience and how can you make the your artifacts, environments and experiences relevant to them.



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