






Making Choices

Making Connections

Making Better Exhibits

exhibittech.info



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Museum Exhibition Planning & Design
Thesis Proposal
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Introduction

“The system of nature, of which man is a part, tends to be self-balancing, self-adjusting, self-cleansing. Not so with technology.”

E F Schumacher

While nature will find its own balance, we must create balance in our use of technology, by using it in a considered, measured fashion. There are many things that must be taken into account when undertaking the integration of technology into a museum exhibition. A seamless, intuitive exhibition requires careful planning in advance. The museum must think about the cost of the technology, its durability and lifespan, and their maintenance budgets and schedules. They must think about whether their exhibition will be up long enough for the technology used to feel obsolete or dated. They must have a plan of what to do when this happens, and for how they will back up any data. The museum must think about obtaining the technology from a reliable source with experience using the technology in similar applications. They will need to consider if the software and hardware is proprietary, or if it will be serviceable by any technician. The museum will need to consider installation and potentially de-installation of the technology, especially if they used devices which require special environmentally friendly disposal. They will want to know if the technologies they are considering were successful in prior museum applications. And most importantly, they will

want to consider which technology will be best suited to the information they wish to present, and for the audience they wish to target. They must consider if everyone in that audience be able to use it equally well, including those visitors who may have disabilities? Currently it is difficult to find useful information about the application of particular technologies in the museum field, who has had experience with the technologies, where the technology may be purchased from and how successful it was at accomplishing the museum's goals.

Answering all of these questions is a huge task which museums take on with limited funds and staff resources. How can we make this information easily available to exhibition designers and developers? How can we connect them to the resources and collaborators they will need to create successful projects? In short, how can we enable Exhibition Professionals to make informed decisions regarding new technologies?

As James Surowiecki argues in The Wisdom of Crowds, groups will routinely come up with a better answer than even a very well-trained individual, due to the wide and varied nature of the group's collective experience. Is there a way that we can harness this collective wisdom and put it at the service of the busy museum professional? With the advent of communally developed information sets on the internet, the opportunity presents itself to change the way we go about selecting technologies for our exhibitions.

Mission & Goals

Mission:

This thesis will discover the concerns which current exhibition design professionals have when thinking about the integration of technology into their exhibitions, pose additional thoughts and considerations, and it will seek to increase the flow of information through the production of the thesis project.

Goals:

This thesis will encourage thoughtfulness on the part of exhibition designers considering the incorporation of technology into their exhibitions

The thesis will facilitate decision-making and technology selection for museum exhibition designers.

The thesis will increase dialogue amongst museum professionals regarding their experiences with different technologies.

The thesis project will connect exhibition designers with qualified and experienced producers and distributors of technology.

Impact

Technology is sometimes misused within exhibits, which can lead to unfortunate results for the institution if it has invested heavily (or not heavily enough) in the technology. This thesis could help museum professionals avoid costly mistakes in exhibition design and maintenance. In addition to providing museum professionals with important factors to consider, it would help them connect with museum professionals who have experience with the technology that they are proposing, in addition to the qualified vendors and fabricators who could supply them with the technology.

The result of this thesis would be an improved experience for everyone:

- *Visitors will be more satisfied if exhibit technology is appropriate to the museum's maintenance schedule, ensuring that exhibits are "In Order" as much as possible.

- *Visitors would be more likely to meet learning objectives at exhibits with appropriately matched technology.

- *Designers could compare technologies and vendors to find the best fit for their projects and museums.

- *Museums could avoid the cost in both money and reduced attendance that poor choices might result in.

- *Fabricators, Vendors and AV Integrators could more

Impact

effectively connect with their customers, advertise their experience, products, services and qualifications, build their reputations and customer bases, and further set themselves apart from the competition.

*Reviews and ratings of technologies could give museums and donors the confidence they need to invest in a new technology.

In short, more information and better communication would improve the experience for all of the stakeholders.

Research (to date)

According to Sandifer (2003), technologically novel exhibits do have a longer holding power than other exhibits. This seems to indicate, since time spent at an exhibition element is usually considered directly proportional to learning, that technological novelty increased visitor learning. If this is true, then those exhibits which incorporate technological elements may be among the most important exhibits in our museums.

As many can attest from personal experience, there are many people who are inexperienced with technology, and may struggle with it, if it is not properly introduced. Technology can be a stumbling block for seniors, in particular, who may not have grown up

with the devices that are second-nature to members of younger generations. Age is not the only factor, of course, socioeconomic and cultural influences (among others) also lead to differences in technological familiarity. We must consider if visitors are spending more time at technologically novel exhibits simply because they need more time to figure them out. In either case, it is important for the technology to be well chosen, so that it is as easy as possible to use.

Searching the Internet for information about museum exhibition technology can be difficult. While exhibitresearch.com and exhibitfiles.org provide information about technology, and about past exhibitions, their formats make finding specific information very difficult. Also, a relatively small number of members contribute reviews and case studies to exhibitfiles.org, likely due to the way that the website is set up, but also perhaps because they don't wish to offend their peers.

Searching for particular products or vendors can also be frustrating since different companies may use different names for technologies which have the same function, particularly when the technology is new. Assembling a list can be tedious enough that once done a designer will choose from the list the next time they need that kind of device, rather than look for a new company, even though another company may have come out with a better or cheaper model since then.

Methodology

I will begin by focusing on facilitating better decision-making for exhibitions with technological elements. For this I will conduct a survey of exhibition developers and designers, asking what concerns they have when choosing to use technology within their exhibitions, what resources they currently use to make those decisions, and what information would better facilitate their decision-making.

I will solicit information from exhibition designers and developers at both museums and design firms in order to accommodate both of their perspectives.

I will conduct a similar survey of vendor and fabricator concerns and what information or services would be useful to them.

I will compile this information into a framework for an online resource which will provide designers with the information they are looking for and connect them with professionals who have experience with that technology. The resource will be updated and kept constantly changing by user submitted reviews and content.

Expected Findings

I expect to find that Exhibition Developers and Designers are concerned about:

- * The monetary cost of technology
- * The quality of the technology available from various vendors
- * The durability, lifespan, and required maintenance of the technology
- * How the technology has been used successfully in the past
- * How the technology has been used unsuccessfully in the past
- * Which technologies would be suitable for their target audiences
- * Finding fabricators and vendors experienced in the technology that they are interested in using
- * Making sure that their technology will be installed correctly, and that they will have all of the necessary cables and components
- * Contacting other designers who have used the technology before

- * Locating more information about the technologies, and how they work
- *The safety of the technology
- * If the technology is becoming more and more popular, or if it is already becoming passe
- * If the components could be easily reused in another installation
- *Environmental sustainability
- * New ways to reuse old equipment
- * Connecting with other institutions to buy/sell/give used technology components, or to group together to purchase and share a more expensive technology
- *Convincing the stakeholders at their museums or other places of business to try new things and to take more risks

I expect to find that Fabricators, Vendors and AV Integrators are concened about:

- * Connecting with potential customers
- * Building a loyal customer base
- * Setting themselves apart from their competitors
- * Saving costs on expo displays by connecting with their

customers in new ways

- * Advertising their brand and building their company's reputation

- * Finding out what their potential customers are most interested in purchasing

- * Keeping track of the level of customer satisfaction that they are providing

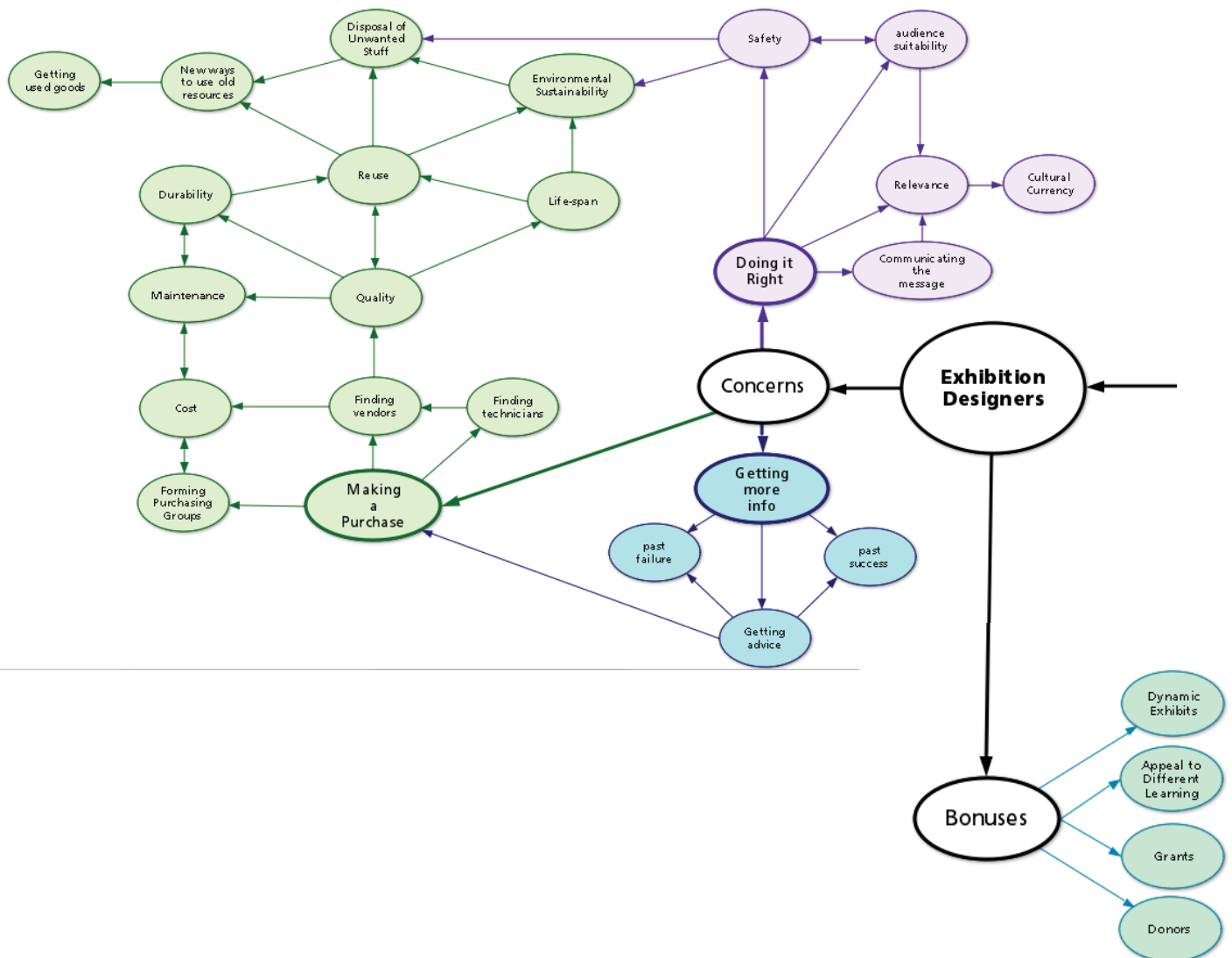
- * Getting feedback on the quality of the products and services that they are providing

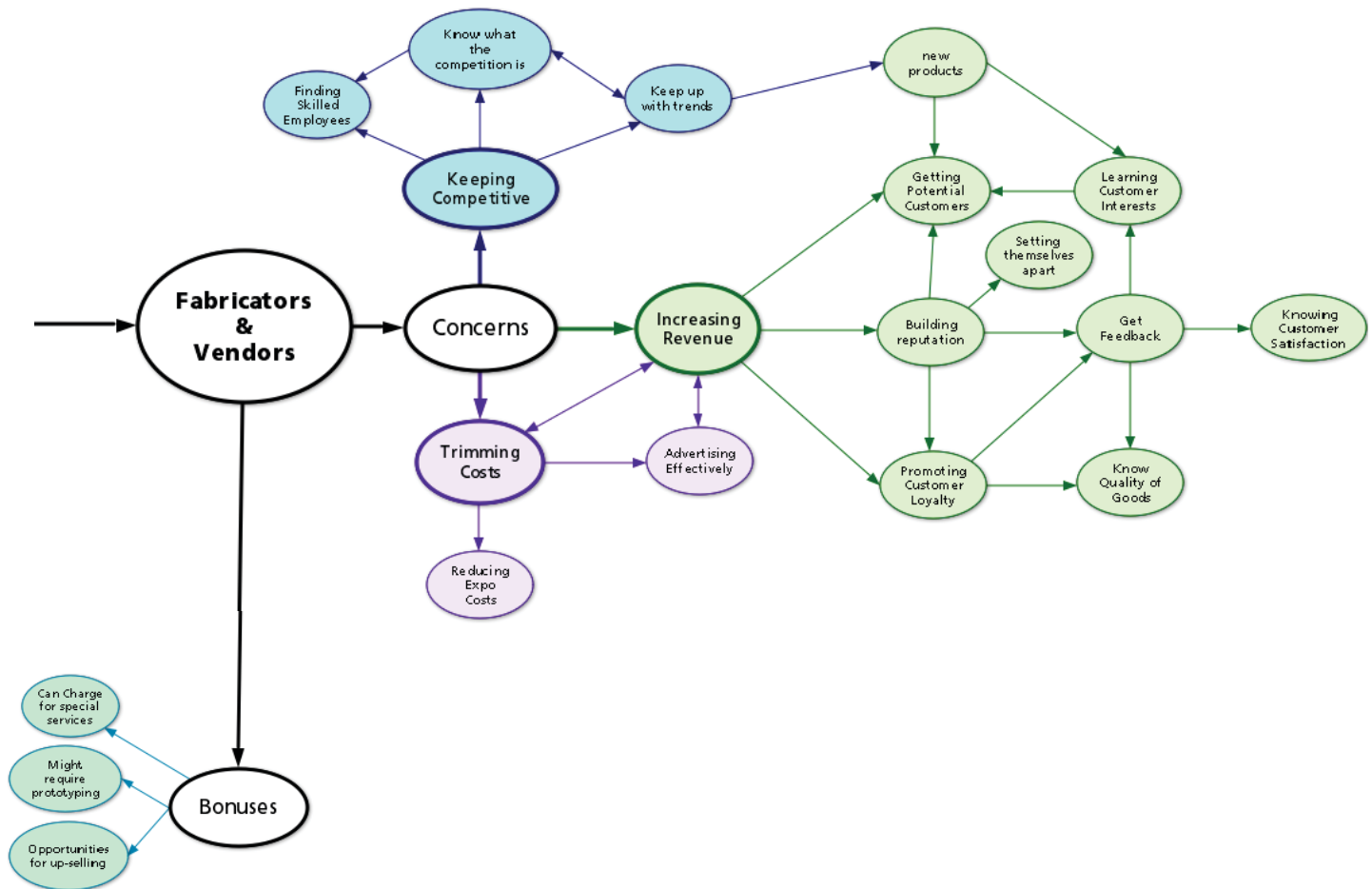
- * Learning about new technologies that might be suited to their customers' projects, or specified in their documents

- * Finding and retaining workers skilled in using and creating new technologies

Mind Map

This Mind-Map shows the predicted interests of Exhibition Developers and Designers and of Fabricators and Vendors.





S.W.O.T

Strengths:

- * Promotes purposeful choices
- * Could be very useful to museum professionals
- * Promotes continuing attention to the exhibit past its opening day
- * Could prevent costly mistakes
- * Helps expose exhibition designers to the range of technologies currently available

Weaknesses:

- * Mistakes will always happen, no matter how much planning occurs
- * Technology is generally perceived as expensive
- * Will be general recommendations, information will have to be tailored to the individuals involved
- * Site's continuing relevance will rely on the participation of users

Opportunities:

- * Could provide lower-cost alternatives
- * Could encourage people to experiment
- * Could result in the creation of a lasting resource tool (website)

Threats:

- * Recommendations could promote same-ism
- * Could dissuade people from experimenting
- * Data-gathering and dissemination will need to be intensive
- * Site will require significant work to build, maintain and moderate
- * Requires buy-in from the concerned parties

Front-End Evaluation

MUSEUM EVALUATION:

Name of Institution:

Location:

Name of Respondent:

Title:

Size of Institution:

Size of a Typical Exhibition (SqFt):

Type of Institution (circle one):

Art Science History Anthropology

Other: _____

Audience:

When contemplating the integration of technology into your exhibition, please rank how important the following are to your current decision-making process:

- _____ 1. Cost
- _____ 2. Durability
- _____ 3. Life-span
- _____ 4. Expected Maintenance
- _____ 5. Reusability
- _____ 6. Environmental Sustainability
- _____ 7. Appropriateness to Topic
- _____ 9. Target Audience
- _____ 10. Hearing about Successful Past Implementations
- _____ 11. Hearing about Failed Past Implementations
- _____ 12. Advice from Peers
- _____ 13. How new the technology is
- _____ 14. How often it is used in everyday life
- _____ 15. Safety
- _____ 16. Partnerships with other museums
- _____ 17. Disposal
- _____ 18. Fabricator experienced in the technology
- _____ 19. Having used it/the same company before
- _____ 20. Locating several possible vendors/fabricators
- _____ 21. Novelty of the Technology

Please list any other factors that might influence your decision:

What information would you like to consider that you don't have access to now?

Which technologies are you most interested in learning more about?

EXHIBITION DESIGN FIRM EVALUATION:

Name of Firm:

Location:

Name of Respondent:

Title:

Typical Client (Institution size, topic, etc.):

When contemplating the integration of technology into an exhibition, please rank how important the following are to your current decision-making process:

- _____ 1. Cost
- _____ 2. Durability
- _____ 3. Life-span
- _____ 4. Expected Maintenance
- _____ 5. Reusability
- _____ 6. Environmental Sustainability
- _____ 7. Appropriateness to Topic
- _____ 9. Target Audience
- _____ 10. Hearing about Successful Past Implementations
- _____ 11. Hearing about Failed Past Implementations
- _____ 12. Advice from Peers
- _____ 13. How new the technology is
- _____ 14. How often it is used in everyday life
- _____ 15. Safety
- _____ 16. Partnerships with other museums
- _____ 17. Disposal
- _____ 18. Fabricator experienced in the technology
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- _____ 21. Novelty of the Technology

Please list any other factors that might influence your decision:

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FABRICATOR/VENDOR/AV INTEGRATOR EVALUATION:

Name of business:

Location:

Name of Respondent:

Title:

Typical Client (Institution size, topic, etc.):

Years in the business:

Product/service offered:

How do you currently reach out to potential customers?:

What are the selling-points that convince them that yours is the technology to choose?:

What are your current methods for measuring customer satisfaction?:

What customer research tools do you currently use?

Description of Solution

The solution is to create the framework for a multi-facted website that could connect Exhibition Developers and Designers with Vendors and Fabricators and others who might have a contribution to the process. This website could function as a guidebook for museum workers as they choose which technology is best for them, filling in the “nuts and bolts” side while they make choices about the appropriateness of the technology to the exhibition’s content.

Main Features for Exhibition Developers and Designers:

1. Create a profile of your museum (Attendance, Audience, Physical Size, etc.)
2. Do a search inputting the parameters of your project (Possible parameters include: Budget, Maintenance Budget, Target Audience and Key terms related to the project such as “multi-user,” “hand-held,” “wireless” etc.)
3. See a list of technologies recommended based on your criteria
4. View information about that technology including:
 - Description of the technology
 - anecdotes and advice from previous users
 - links to exhibitfiles.com and exhibitresearch.com case studies and reviews
 - contact info for museum professionals who have used the technology in their own exhibitions
 - trend graphs for this technology- is

it on the up and up, something that will be around for a while, or will it soon be outdated?

5. View amazon.com-style ratings and reviews of merchants providing the technology that you are interested in

- Reviews from members sitting on the site's editorial board (composed of respected professionals) will be set apart as "Editor's Reviews" while anonymous reviews will be aggregated into "User Reviews" This will allow typical users to speak their minds anonymously, but also look to a more trusted source for information. Participants on the Editorial Board could receive honorariums for the reviews that they write funded by the premium account fees for vendors and fabricators.

6. Get in touch with the vendors or fabricators directly through the site, sending them as much or as little of your search information as you choose

7. Come back and rate and review the technology that you used, this information can now be used to personalize future searches

Main features for Fabricators, Vendors and AV Integrators:

1. Create a profile of your business and link your profile to the services that you provide
2. Set your business apart with a premium account and

upload a portfolio or video advertisement demonstrating your product, offer samples, etc.

3. Gather visitor feedback as your customers rate your work and build your reputation

4. Maintain your customer relationships via the site to build visitor loyalty

5. Find out what technologies your customers are interested in

7. Collaborate with other vendors to provide packaged services, etc.

8. Find products which you can include in your own work (Find the right button pre-made for your new device, etc.)

Other features:

- Browse lists of the technologies getting the most attention in the last week, month, etc
- Blog of upcoming new technologies, new possibilities for old equipment and simple non-technological alternatives
- Featured vendors offer discounts for a limited time, etc.
- For Sale or Trade, a space to sell exhibit technology when museums are finished with it, or even for purchasing technology as a consortium to lower individual costs

Idea Trap

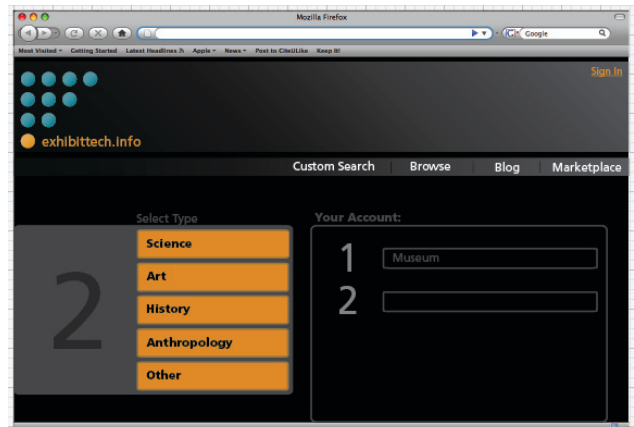
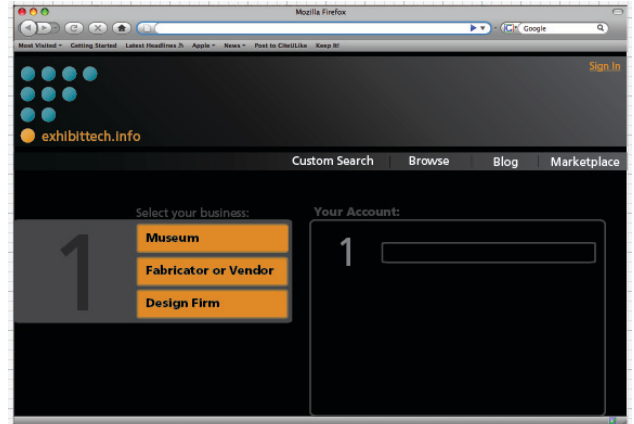
Index Page



Featured
Sponsor

Create an Account

Account Creation:



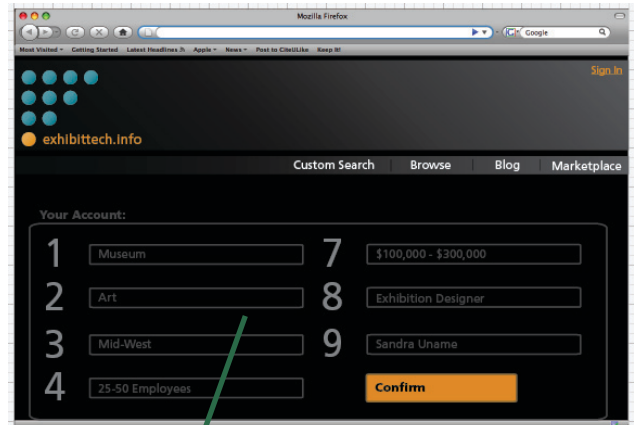
Account Home Page



Current Projects

Current Vendors

Suggestions



Choose descriptors to fit
occupation and workplace,
Type in Name, Email, etc.

Custom Search: Step 1 a Technology

Choose Parameters of Project

exhibittech.info

Sandra Uname edit

Custom Search Browse Blog Marketplace

Project type:

- Long-Term
- Short-Term
- Travelling

Project:

1

Choose Key Terms

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Custom Search Browse Blog Marketplace

Choose Those Most Important:

Single-User	Multi-User
Single-Use	Multi-Use
Portable	Energy Efficient
Durable	Sustainable
Hidden	Apparent
Wall-mount	Hand-held

Terms Selected

- Multi-User
- Multi-Use
- Portable
- Hand-held

Search Results

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Custom Search Browse Blog Marketplace

Search Results:

- RFID**
ODIN provides RFID technology that museums can use to link data wirelessly to objects.
- Focused Audio**
ODIN provides RFID technology that museums can use to link data wirelessly to objects.
- Cellphone**
Savi provides RFID technology that museums can use to link data wirelessly to objects.
- Dolby 5.1**
Savi provides RFID technology that museums can use to link data wirelessly to objects.
- PDA**
Hitachi provides RFID.
- Barcode**
Hitachi provides RFID.

Custom Search: Step 2 a Vendor/Fabricator

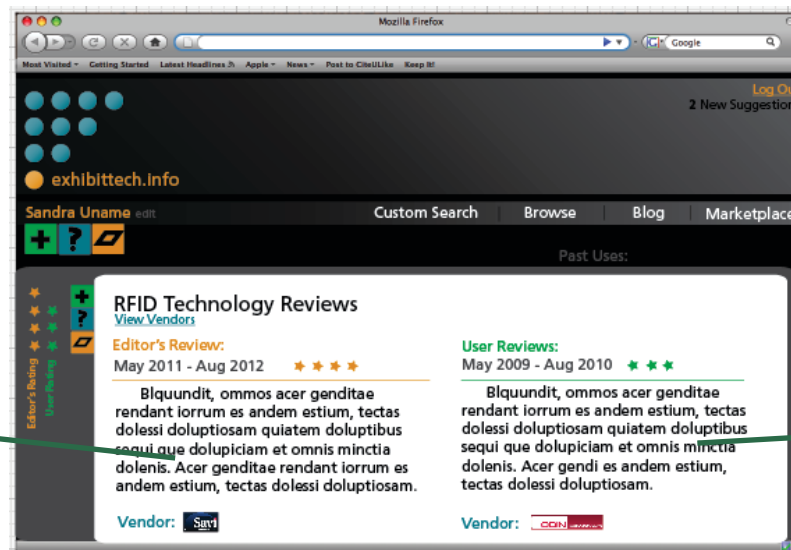
Description of Technology, links Photos, etc.

Collapsed View of Reviews



Editor's Review

User Review



Small Profile

Search Results



Selected Bibliography

Sandifer, C. (2003). Technological novelty and open-endedness: Two characteristics of interactive exhibits that contribute to the holding of visitor attention in a science museum. *Journal of Research in Science Teaching* 40 (2), 121-37.

<http://www.exhibitresearch.com>

<http://www.exhibitfiles.org>

<http://www.orselli.net>

<http://www.astc.org>

<http://www.big.uk.com>

<http://www.greenexhibits.org>

<http://museummedia.nl/>

<http://musematic.net/>

<http://www.elance.com/>

Proposed Timeline

October

10/28/2009 Thesis Meeting

November

11/20/2009 Meet with Polly

11/25/2009 Proposals Due Round 1

December

12/15/2009 Research and Development

January

1/5/2010 Ask Committee Formally

1/5/2010 Work on Schematic Design

1/14/2010 Meet with Polly

1/19/2010 Final Thesis Proposals Due

1/28/2010 "Meet" with Advisers

February

2/7/2010 Meet with Polly

2/14/2010 "Meet" with advisers

2/15/2010 Begin Development

2/28/2010 Meet with Polly

March

3/7/2010 "Meet" with advisers

3/14/2010 Final Plans

3/25/2010 Thesis design document

April

4/15/2010 Thesis Defense

4/15/2010 Revisions and Sign-off

May

5/15/2010 Corrections Due

5/20/2010 Graduation

Proposed Committee

Lath Carlson
Paul Orselli
Jeremy Beaudry

University of the Arts
Exhibition Designer
University of the Arts