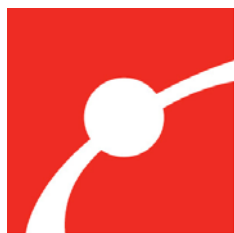


“Baseball Stories” ***User Generated Content Project*** **Formative Evaluation**

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EXECUTIVE SUMMARY

This report presents findings from the evaluation of the “Baseball Stories” user generated content (UGC) project. The “Baseball Stories” project was created by the Information and Interactive Technology Department to allow people to share stories about their experiences with baseball for display in the *Baseball As America* traveling exhibition. As a part of the project, a website was created where people could create and post their stories and view other stories, and an exhibition kiosk was created where people could view their or others’ stories or send an email to remind themselves to create a story or to join the Museum’s E-News list. The evaluation study was conducted from July to October 2008. The evaluation questions guiding the study included the following:

- What kinds of people post stories to the *Baseball As America* website?
- What about the website or exhibition makes people post stories to the *Baseball As America* website?
- What kinds of stories do people post to the *Baseball As America* website?
- What kinds of people interact with the “Baseball Stories” kiosk at the Museum of Science?
- How do people use the “Baseball Stories” kiosk at the Museum of Science?
- How can the design of the kiosk and website be changed to improve future implementations of UGC in Museum exhibitions and web-based experiences?

In order to answer these questions, data was collected from people who created baseball stories as well as from people who used the kiosk while visiting the *Baseball As America* exhibition. The 185 people who signed up for the “Baseball Stories” online community were invited to answer an online survey about their experiences using the website and kiosk. Forty-five people answered the survey (return rate 24.3%). In addition, the content of the stories was categorized by the type of media posted (photograph or video); whether amateur or professional baseball was discussed; whether the story was about the individual who posted it, their friends & family, or a professional athlete; and whether it was a personal anecdote or factual account. In order to better understand the use of the kiosk, visitors 10 years of age and older were observed and surveyed. Forty visitors were observed using the kiosk, and 43 visitors were asked to fill out a survey about it. In addition, 10 visitors were cued to use the kiosk to determine any usability problems.

The results of the web survey, story content analysis, kiosk survey, kiosk observations, and kiosk usability study indicate that:

- Members of the “Baseball Stories” online community:
 - Heard about it from the Museum of Science (MOS) website before attending the exhibition.
 - Were likely to feel comfortable posting data having done so before.
 - Posted stories because they wanted to involve their family and share their stories and love of baseball.
 - Found all the baseball stories engaging whether they were a video or photograph.
 - Wanted to be able to more easily find stories on the website.

- “Baseball Stories” kiosk users:
 - Were not interested in posting a story.
 - Used the kiosk to watch stories rather than to send an email or add their story to the queue.
 - Found videos and stories about famous people to be the most engaging.
 - Felt that there were some usability issues with the kiosk.
 - Wanted to be able to search for and cue stories.

Based on these findings, it is suggested that when creating future UGC projects the Museum should consider the following:

- Marketing the project through both Museum and external sources.
- Choosing topics that allow people to express a personal or family connection.
- Allowing people to post their stories using many different types of media (pictures, text, video, etc.).
- Allowing people to post stories at the Museum as well as through a website.
- Allowing visitors to search for stories in various ways and choose which stories to watch.
- Providing a variety of story types including “celebrity” stories which may be of more interest to those who do not wish to create their own stories.

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I. INTRODUCTION

ABOUT THE PROJECT

Baseball As America was a temporary, travelling exhibition displaying the story of American baseball through its artifacts presented at the Museum of Science from June 15 – September 1, 2008. The exhibition was produced by the National Baseball Hall of Fame and Museum. To supplement the exhibition, the Museum of Science added a series of components, including a look at the inside of baseballs and bats, a chance to experience what it is like for a major league catcher to catch a fastball, and the opportunity to view local celebrities’ and fans’ stories about their own baseball experiences.

The Museum’s “Baseball Stories” component was created in part by the Information and Interactive Technology Department. The purpose of this component was two-fold:

- To allow visitors and fans to add their own baseball-related stories to the exhibition and its website, and
- To allow visitors to view the baseball stories at home on the Internet and in the exhibition.

Visitors could add their baseball stories by registering at the exhibition or at the Museum’s *Baseball As America* “Baseball Stories” website (<http://www.mos.org/create/baseball>). After registering, visitors were able to post video or photographs to the website and add short text stories. In addition to the baseball stories from visitors and fans, the Museum also recorded a series of baseball stories from local and national celebrities such as Senator Ted Kennedy, Governor Deval Patrick, former Red Sox player Johnny Pesky, Boston Pops conductor Keith Lockhart, and National Public Radio correspondent Delores Handy.

FIGURES 1 & 2. Photographs of “Baseball Stories” Museum Kiosk Prototype and Website Front Page.



People could view the stories either at the Museum or on the *Baseball as America* website. On the Internet, visitors could search for stories based on the date they were posted or the number of viewings they had, and had the option to select and view any or all of the baseball stories. At the exhibition, stories were cued—one story would be a picture, the next a video, then another picture, etc. If a person who had created a story logged in to the kiosk at the Museum, they were able to add their story to the queue. This was the only way that visitors could affect the order or the content of the stories presented in the exhibition. There was no way for anyone who had not created a story to affect the order of the stories in any way. Photographs of a Museum kiosk prototype and the website can be found on the previous page (Figures 1 & 2).

ABOUT THE EVALUATION

The Information and Interactive Technology Department approached the Museum of Science Research and Evaluation Department to conduct a formative evaluation of the “Baseball Stories” project. The goal of the evaluation was to understand how visitors who post and do not post user generated content (UGC) use the component. The questions driving this evaluation included the following:

- What kinds of people post stories to the *Baseball As America* website?
- What about the website or exhibition makes people post stories to the *Baseball As America* website?
- What kinds of stories do people post to the *Baseball As America* website?
- What kinds of people interact with the “Baseball Stories” kiosk at the Museum of Science?
- How do people use the “Baseball Stories” kiosk at the Museum of Science?
- How can the design of the kiosk and website be changed to improve future implementations of UGC in Museum exhibitions and web-based experiences?

The planning for this evaluation began in July 2008. Evaluators collected data for this evaluation between August and October 2008. The final evaluation report was released in October 2009.

II. METHODS

To create a detailed, holistic account of how the “Baseball Stories” were used at home and at the Museum, multiple data collection methods were employed. Methods included a user web survey, analysis of content posted to the website, observations of visitors using the kiosk, exit surveys of visitors who had used the kiosk, and usability testing of the kiosk. These methods are discussed in more detail below.

TABLE 1. Number of Visitors Who Participated in the Data Collection Methods.

Data Collection Method	Number of Participants
User web survey	45
Analysis of web content ¹	131
Kiosk observation	40
Visitor exit survey	43
Usability testing	10

1. USER WEB SURVEY

The purpose of the user web survey was to gather information about both the “Baseball Stories” website and exhibit from people who joined the *Baseball As America* online community. The online participant survey was administered through email. The protocols for selecting participants and filling out the survey are described below.

1.1 Recruitment of Baseball As America website users

One-hundred and eighty-five individuals created an account on the Baseball Stories website associated with *Baseball As America*. On September 23, 2008, an email was sent to 138 individuals who had created stories for the website. A second email was sent on October 10, 2008, to the recipients of the first email who had not clicked through on the survey link or unsubscribed from the system as well as those individuals who joined the website but did not create a baseball story (152 individuals). Both emails told recipients that the Museum of Science was looking for feedback on their experience with the Baseball Stories website. (Email text can be found in Appendix A.) To encourage participation in the survey, participants were invited to join a drawing for two free Omni passes. Through this solicitation method, a total of 45 surveys were collected for a return rate of 24.3%.

¹ 211 stories were posted on the “Baseball Stories” website by the 131 website users as of the closing of the exhibition on September 1. An additional 42 stories were placed on the “Baseball Stories” website by the Museum of Science.

1.2 Online participant survey questions

When participants clicked on the link to the online survey, they were asked to answer both qualitative and quantitative questions meant to describe their experiences with and reactions to both the “Baseball Stories” website and kiosk experiences.

Questions participants were asked about their experiences with the website included the following:

- How the participant heard about the website
- When and why the participant signed up for the website
- What the participant did on the “Baseball Stories” website
- Participant reactions to various aspects of the website and its content
- If applicable, when and why the participant posted content to the website
- If applicable, why the participant had not posted content to the website

If participants had attended the *Baseball As America* exhibition and visited the “Baseball Stories” kiosk in the exhibition, they were asked another series of related questions including the following:

- How the participant had used the interactive
- Participant reactions to various aspects of the interactive and its content
- What improvements participants would suggest to the interactive

To gain a more complete picture of who the “Baseball Stories” website participants were, a series of questions about participants and their experiences with user generated content were asked including the following:

- What websites, if any, participants had used to post photographs or videos
- The level of interest and trust in sharing content via the Museum of Science website
- General demographic and psychographic information

A copy of the web survey can be found in Appendix B.

2. ANALYSIS OF CONTENT POSTED TO WEBSITE

After the closing of the *Baseball As America* exhibition, evaluators inventoried the 253 videos and pictures that had been posted to the website. These videos were coded based on the following:

- The type of media posted (photograph or video);
- Whether amateur or professional baseball was discussed;
- Whether the story was about the individual who posted it, their friends & family, or a professional athlete; and
- Whether it was a personal anecdote or factual account.

3. VISITOR OBSERVATIONS AT EXHIBITION KIOSK

In order to understand how visitors used the “Baseball Stories” computer kiosk in the *Baseball As America* exhibition, evaluators observed 40 visitors 10 years of age and older as they used it. A continuous random sampling method was used to select visitors for participation in the observation study. This meant that the evaluator would choose the first eligible visitor to interact with the kiosk to be their first observation subject. After the observation (and if applicable, surveying) of this individual was complete, the next observation study participant would be the next eligible individual to interact with the kiosk. The observational data collected is described below.

Demographic information collected included the following:

- The size of the observed group including the number of males and females in the group
- The approximate ages of all the group members
- The makeup of the group (adults only, adults and kids, or kids only)
- The gender and approximate age of the focus subject

Behavioral data collected included the following:

- How long the focus subject spent at the component
- How many stories the focus subject watched
- Whether the focus subject watched Museum of Science-produced stories or visitor-produced stories
- If the focus subject searched for their story to add to the cue
- If the focus subject signed up for an email reminder to add content when they get home
- If the focus subject signed up for the Museum E-Newsletter.

A copy of the observation sheet can be found in Appendix C.

4. VISITOR EXIT SURVEY

Following their interaction, evaluators approached as many visitors as possible who were observed using the “Baseball Stories” kiosk, and asked them to give feedback about their experiences with the kiosk. In addition, evaluators asked some visitors, who had not been observed, about their experiences using the kiosk. To ensure that the visitors surveyed could give complete feedback on the kiosk, visitors were selected for surveying only if they had watched two stories, had been at the exhibit kiosk for at least one minute, or had used both the computer that was a part of the kiosk and watched a story. Using these methods, 43 visitors were surveyed about their experiences using the “Baseball Stories” kiosk. These visitors were asked the following questions:

- What they thought of the story component
- Whether they knew they could add their own stories
- What would make them decide to add their own stories to the story component
- How interesting and new they thought the story component was
- What could be changed about the story component to make it better

A copy of the visitor exit survey can be found in Appendix D.

5. USABILITY TESTING OF THE COMPUTER KIOSK

In order to understand any usability issues visitors had with the “Baseball Stories” kiosk, evaluators cued 10 visitors who were 10 years of age and older to use the kiosk. Visitors were asked to explore the kiosk on their own, and if they did not use certain areas of the kiosk they were prompted to do so. The behaviors that evaluators observed included the following:

- On their own does the visitor
 - Read the label
 - Find a story on the kiosk
 - Send an email on the kiosk
 - Watch an MOS story
 - Watch a non-MOS story
- When prompted does the visitor
 - Successfully add a story to the cue
 - Successfully send an email
 - Watch an MOS story
 - Watch another story

After visitors used the “Baseball Stories” kiosk, evaluators asked them a series of questions to understand any usability issues they had. The questions asked included the following:

- What they thought of the computer interactive
- If they thought the computer interactive was different from other Museum of Science computer interactives

- Where they thought the stories come from
- If they knew they could add their own story to the interactive
- If they will add a story when they get home
- What changes could be made to improve the interactive

A copy of the usability testing protocol can be found in Appendix E.

6. DEMOGRAPHICS OF STUDY PARTICIPANTS

Demographic information was collected on the visitor exit survey and observation sheet in order to understand which *Baseball As America* visitors used the “Baseball Stories” kiosk in the exhibition. On the exit survey, visitors were asked to indicate their age. According to the exit surveys, the average age of visitors using the “Baseball Stories” kiosk was 43 years old (N=43, $SD^2=15$ years, Graph 1).³ During observations of the kiosk, evaluators recorded the group types and genders of the focus subjects. These data show that, among the 40 groups observed, 24 of the groups were made up solely of adults, 11 were made up of adults and children, and 4 were made up solely of children.⁴ Observations also indicated that an equal number of females (19 of 40 observed visitors) and males (19 of 40 observed visitors) used the computer kiosk.⁵

Demographic information was collected on the web user survey in order to understand who signed up to be a part of the “Baseball Stories” online community. Similar to the exhibition kiosk, the mean age of participants was 43 years old (N=45, SD=10 years, Graph 2). However, more females (28 of 45 web survey respondents) than males (17 of 45 web survey respondents) reported using the “Baseball Stories” website. The user web survey also indicated that almost all of the website community members were White (43 of 45 web survey respondents; 1 of 45 Hispanic/Latino; 1 of 45 no answer), and that no one (0 of 45 web survey respondents) had a temporary or permanent disability. Web survey participants were also asked about their relationship to the Museum of Science. Among the 45 web survey respondents, 9 reported being Museum of Science members, 33 identified themselves as Museum of Science visitors, 2 reported themselves as staff, and 2 said they had another relationship to the Museum.⁶ It should be noted that these numbers may not be an accurate representation of the website users since the web survey participants were a self-selected sample.

² “SD” stands for standard deviation.

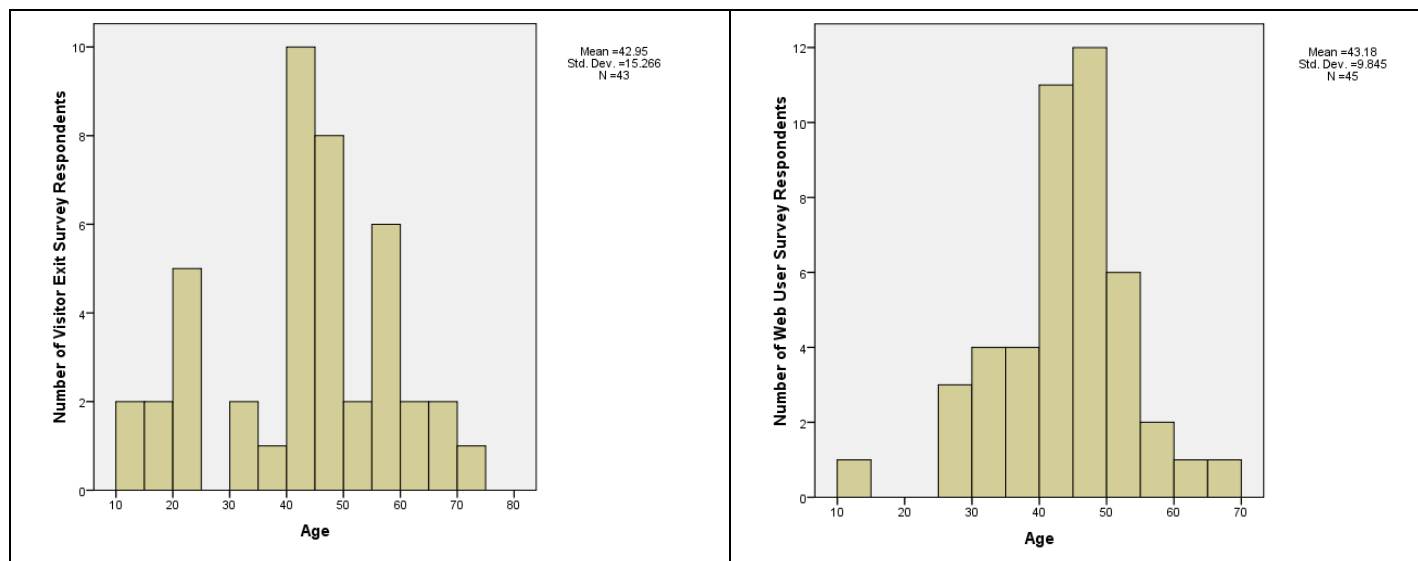
³ It should be noted that this average only takes into account visitors 10 years of age and older as no one younger than this was surveyed. Therefore, it is possible that this average is inaccurate.

⁴ The group type was not recorded for one of the 40 groups observed. It should be noted that evaluators may not have seen all the group members during their observations. Therefore, the group type may not be accurate.

⁵ The gender of the focus subject was not collected during two of the 40 observations.

⁶ Numbers add up to greater than 45 because some people selected more than one category.

GRAPHS 1 & 2. Ages of the Visitor Exit Survey and Web User Survey Participants.



7. DATA ANALYSIS

By collecting data in a variety of ways, the evaluator was able to triangulate the data. The logic behind triangulation is that “no single method ever adequately solves the problem of rival causal factors” (Patton, 2002, p.247). Therefore, if data is collected through many sources, evaluators can avoid the problems of a one-method study, which is “vulnerable to errors linked to that particular method (e.g., loaded interview questions, biased or untrue responses)” (Patton, 2002, p.248). Studies that utilize multiple methods allow “cross-data validity tests” (Patton, 2002, p.248), and thus reduce the likelihood that the evaluator will draw a false conclusion based on the limits of any one instrument. In this case, data from the “Baseball Stories” kiosk observations, kiosk exit surveys, website survey, website content analysis, and kiosk usability study were compared to ensure that findings are not susceptible to error, and to allow for an exploration of differences among data.

Data collected through the instruments were both qualitative and quantitative in nature. Quantitative data were analyzed through descriptive statistics such as percentages, counts, and means. In addition, comparative tests of significance were sometimes conducted. The level of significance was set at 0.05, and only statistically significant results are described in this report. Qualitative data were analyzed using inductive coding. Inductive coding analysis involves “immersion in the details and specifics of data to discover important patterns, themes, and interrelationships” and allows the coding scheme to emerge from the data (Patton, 2002, p.41).

III. FINDINGS AND DISCUSSION

The Findings and Discussion section is divided into three parts based on the “Baseball Stories” deliverables and the evaluation objectives for this project. The three parts are as follows:

1. “Baseball Stories” Website Users and Their Experiences,
2. “Baseball Stories” Kiosk Users and Their Experiences, and
3. Suggested Improvements to the “Baseball Stories” Deliverables.

1. “BASEBALL STORIES” WEBSITE USERS AND THEIR EXPERIENCES

The five main findings about the users of the “Baseball Stories” website and their experiences are the following:

1. People who joined the “Baseball Stories” website heard about it before attending *Baseball As America* and joined after learning about it on the MOS website.
2. People who joined the website were likely to feel comfortable posting data having already done so on other websites.
3. People posted stories to the website because they wanted to involve their family members and to share their stories and love of baseball.
4. Most website users found all the baseball stories engaging and showed little difference in their preference for videos or photographs.

1.1 People who joined the “Baseball Stories” website heard about it before attending Baseball As America and joined after hearing about it on the MOS website.

The most common way website survey respondents reported learning about the *Baseball As America* website was from a Museum source. Nearly half of web survey respondents (21 of 45) indicated learning about the *Baseball as America* website via the MOS website and another 18% of the survey respondents (8 of 45) learned about the “Baseball Stories” website through an email from the Museum of Science. Therefore, nearly two-thirds of the web survey respondents (62%; 28 of 45) reported they had found out about the *Baseball as America* website through some electronic means provided by the Museum. Other means by which respondents learned of the “Baseball Stories” website can be found in Table 2.

TABLE 2. Means by Which Respondents Reported Learning of “Baseball Stories” Website. (N=45)⁷

	Number of Survey Respondents
From the Museum of Science website	21
From a Museum of Science email	8
From a friend/family member	6
Other	5
At the Museum of Science	4
From another email	3
From another website	1
From <i>Sparks!</i> (MOS member magazine)	1

These data were confirmed when looking at the question about when the web survey respondents said they signed up for the “Baseball Stories” website and posted a story. Most of the web survey participants (31 of 45) signed up for the website before visiting the *Baseball As America* exhibition at the Museum of Science. Only a few survey respondents said they signed up for the website either during (1 of 45 survey respondents) or after (4 of 45 survey respondents) their visit to the exhibition, or said they did not visit the exhibition at all (9 of 45 survey respondents). In addition, of the 36 web survey respondents who said they posted a story to the “Baseball Stories” website, most of them (21 of 36 question respondents) reported posting their story before visiting the exhibition (Table 3).

TABLE 3. When Survey Respondents Who Reported They Posted a Story Said That Story Was Posted. (N=36)

	Number of Question Respondents
Before I visited <i>Baseball As America</i>	21
I have not visited <i>Baseball As America</i>	6
After my visit to <i>Baseball As America</i>	3
No answer	6

These data indicate that website users were interested in the “Baseball Stories” website because of its connection to the Museum of Science. However, they show that visitors were driven to visit the website and post stories not because of an interaction at the exhibition. Instead, it seems that the main driver to join was the Museum of Science or “Baseball Stories” websites themselves. It is possible the users of the websites were attracted by the topic of baseball and may have wanted to view their content in the exhibition. This has interesting implications in the marketing of exhibitions as it indicates that the MOS website can be a means by which to drive people to visit the Museum or exhibitions. However, these data also suggest that in the future the Museum may want to consider increasing its marketing of the website to drive visitors to post content before they visit the exhibition. The Museum may also want to think about ways it can increase the number of posts from people

⁷ The total adds up to more than 45 because some respondents said they heard about the “Baseball Stories” website through more than one source.

who have already visited the exhibition such as by allowing visitors to create their stories while they are already in the exhibition or by making it more obvious to visitors that they can create their own stories once they get home.

1.2 People who joined the website were likely to feel comfortable posting data having already done so on other websites.

People who answered both the web user survey and the exhibit exit survey were asked about their experience posting data to other websites. Data indicate that most of the visitors (27 of 43 survey respondents) who used the “Baseball Stories” kiosk in the *Baseball as America* exhibition did not have prior experience posting pictures or videos on a website. Of those visitors who had previously posted content, the most frequently used website was Facebook (9 of 43 survey respondents). Many more of the web survey respondents reported they had posted content to another website. Less than half of the survey respondents (18 of 40) said they had never posted content to another website while about a quarter of the survey respondents said they had previously posted content to either Facebook (13 of 45) or Shutterfly (10 of 45). When comparing the web users and kiosk users, it is seen that the website users were significantly more likely to have had previous experience posting content to a website ($X^2 = 4.571$, $df^8=1$, $p=0.033$). See Table 4 for more information.

TABLE 4. Responses to the Exit Survey and User Web Survey Question: “Have you ever placed pictures or video on any of the following websites?”

	Visitor Exit Survey		Website User Survey	
	N=43 ⁹	%	N=45 ¹⁰	%
No posting experience	27	63%	18	40%
Facebook	9	21%	13	29%
My Space	7	16%	8	18%
Shutterfly	1	2%	10	22%
Picasa	1	2%	5	11%
Flickr	0	0%	5	11%
YouTube	3	7%	8	18%
Other	2	5%	4	9%

As shown in Table 4, 43 participants reported having experience posting pictures or videos on a website. Across both the visitor exit survey and user web survey, most of these participants (26 of 43) reported using social networking websites such as Facebook and My Space. Comparatively, a much smaller number of this same set of participants reported using online photo sharing websites (7 of 43; Picasa, Flickr, and Shutterfly) and video sharing websites (11 of 43; YouTube). This may indicate that the social networking aspect of the

⁸ “df” stands for degrees of freedom.

⁹ Totals add up to more than 43 because some participants chose more than one category.

¹⁰ Totals add up to more than 45 because some participants chose more than one category.

“Baseball Stories” website as well as a previous familiarity with posting is what attracted people to join and post stories.

Looking more closely at the “Baseball Stories” website users, it was discovered that these participants were not necessarily interested in posting because “Baseball Stories” was part of the Museum of Science; rather, they were interested in posting content in general. When web survey participants were asked to rate the statement “I am more likely to post content on the Museum of Science website than another website” on a five point Likert scale¹¹, just over one-third of the survey respondents (17 of 45) chose either 4 or 5, indicating that not that many people were interested in posting specifically to the Museum of Science website. In addition, just over one-quarter of the survey respondents (12 of 45) rated the statement “I am interested in posting content on the Museum of Science website” a four or five, while two-thirds of the survey respondents (30 of 45) chose a four or five when asked to rate their agreement with the statement “I am more likely to post content on the Museum of Science website if it will be posted in an exhibition” (Table 5). These data indicate that the “Baseball Stories” content and *Baseball As America* exhibition drove participation in the website, not the Museum of Science name.

TABLE 5. Mean Ratings and Participant Agreement with Statements about Posting Content.¹² (N=45)

	Mean	SD	Number of Survey Respondents >= 4
I am interested in posting content on the Museum of Science website.	3.1	1.1	12
I am more likely to post content on the Museum of Science website than another website.	3.2	1.2	17
I am more likely to post content on the Museum of Science website if it will be posted in an exhibition.	3.7	1.2	30

These data indicate that the people who posted content to the Museum user generated content website were likely to have posted content to other websites in the past. They also indicate the importance of the topic in prompting people to post content and indicate that the “reward” of seeing themselves in an exhibition may driven them to create content. In order to increase the number of people who post content, the Museum may want to consider the following:

- Creating websites that cover a topic of broader appeal than baseball, and
- Having the participants provide content that will be displayed in an exhibition as well as used in other ways such as *Firefly Watch* (Kollmann, 2009).

¹¹ On the five point Likert scale, 1 meant “strongly disagree” and 5 meant “strongly agree.”

¹² Web user survey respondents were asked to rate the statements on a scale of 1 “strongly disagree” to 5 “strongly agree.”

1.3 People posted stories to the website because they wanted to involve their family members and to share their stories and love of baseball.

Almost all (37 of 45) of the “Baseball Stories” website users that responded to the web survey reported that they created a story when asked what they did at the website. In addition, nearly three-quarters of the survey respondents (32 of 45) reported viewing other people’s stories. However, less than half of the survey respondents (20 of 45) reported that they viewed their own story on the website, and even fewer people (14 of 45) reported that they directed others to view their story while at the “Baseball Stories” website. These data indicate that “Baseball Stories” users primarily viewed the website as a place to post stories and view the stories of others, but they did not see it as a place to view their own story or to send their friends and family to view their story. One possible reason for this may be that users intended to view their story and have their friends/family view their story in the *Baseball As America* exhibition. It is also possible that “Baseball Stories” website users did not know they could send their friends and family a link to their stories through the website, or that they had difficulty finding their own stories on the website. See Table 6 below.

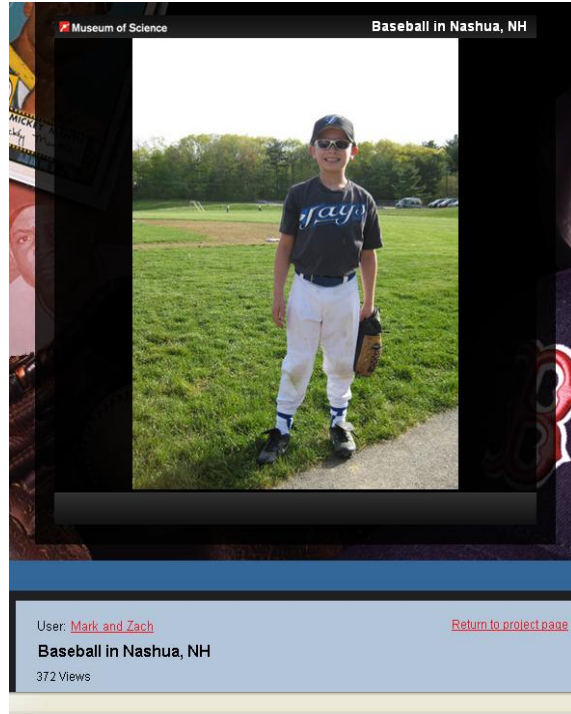
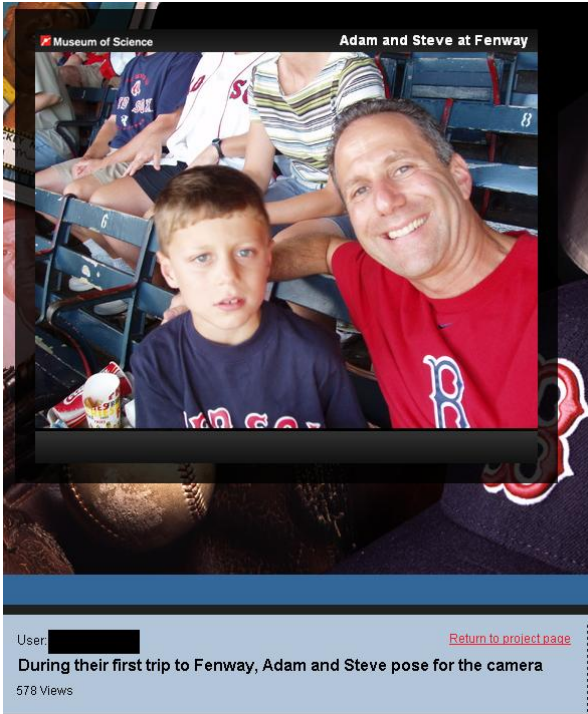
TABLE 6. Responses to Close-Ended User Web Survey Question: “What did you do when you visited the ‘Baseball Stories’ website?” (N=45)¹³

	Number of Survey Respondents	%
Created a story	37	82%
Viewed other stories	32	71%
Viewed my story	20	44%
Directed others to view my story	14	31%
Searched for but did not find my story	1	2%

Those that participated in the “Baseball Stories” website by posting content seemed to be using the website primarily as a sort of virtual scrapbook (as one would use a photo sharing website). A vast majority (95%, 200 of 211) of the non-Museum of Science stories posted were pictures rather than videos. In terms of the type of baseball presented, nearly three-quarters of posts that non-Museum of Science contributors (70%, 147 of 211) provided were about professional baseball. The remainder of these stories (30%, 64 of 211) related to amateur baseball. Examples of amateur baseball include stories having to do with little league baseball or college baseball. Pictures of a professional baseball story and amateur baseball story can be seen below (Figures 3 & 4).

¹³ Totals add up to more than 45 because participants were asked to indicate all activities they participated in on the website.

FIGURES 3 & 4. An Example of a Professional and Amateur Baseball Story Left on the “Baseball Stories” Website.



The analysis of content posted to the website also revealed that the majority of posts that participants contributed (70%, 147 of 211) were about their friends or family.¹⁴ Data indicate that people who posted were not necessarily concerned with stories about themselves as less than half of the stories (47%, 99 of 211) contained information about the poster. The following are examples of stories involving family that people posted to accompany their pictures:

I was able to get my little brother Red Sox tickets for his 14th birthday and his birthday was the exact same day as the game. The Red Sox won!

Our son, Brady, has been tossing a baseball since he was a toddler and now at the age of 4 he is playing baseball for the first time. He is playing on the Tigers T-Ball team and Dad is the head coach. He has had such a great season. For a little guy, he has quite an arm and can he hit the ball...watch out. Great Job Brady! Mom and Dad are very proud of you.

The following are examples of stories people posted that involved themselves:

¹⁴ Stories were coded for different aspects of content including whether the story referred to professional or amateur baseball and whether the focus of the story was the poster, family or friends, and/or a professional baseball player.

My father and I have been having a family feud for a few years now. He is a die-hard Boston Red Sox fan and I am a New York Yankee lover! It all started when I was younger and wanted to be the difficult child and started liking the Yankees. Ever since then I have become a huge fan. Every year we go to a Red Sox/Yankees game and have a great time. We even got interviewed on the FOX News Station at the last game we went to. It's all fun but when the playoffs come around, things get a little tense in the house! :-)

I had decided to forego the usual cap and gown setup and decided to wear my Red Sox cap to my college graduation.

Forty-three “Baseball Stories” website users that participated in the web survey answered a question about why they decided to sign up for the website. As shown in Table 7 below, the answers given reflect the findings from above. The most common reason survey respondents (12 of 45) said they signed up for the website was that they wanted to involve their family or friends. One participant wrote, “I thought it would be fun for my son to participate in this opportunity...” The second most common motivator for signing up (11 of 45) was that people had a meaningful connection with baseball. One of these participants said, “...[I decided to sign up because] we have been attending Red Sox games together since he was 6 years old...” The third most common motivator (10 of 45 survey respondents) that people reported was their love of baseball. One participant simply wrote, “I love baseball.”

TABLE 7. Responses to the Open-Ended Web User Survey Question: “Why did you decide to sign up for the ‘Baseball Stories’ website? (N=45)¹⁵

	Number of Survey Respondents	Example Response
Because of / or to involve my family / friends	12	"I wanted my daughter to see the story during the visit."
Because of a meaningful connection with baseball	11	"Baseball is not only a sport- it opens you up to your inner self and if you allow it, it can be a metaphor for life..."
I love/like baseball.	10	"I love baseball."
To share a story	8	"Wanted to share my baseball story."
To be part of an exhibit	6	"My family are huge baseball fans and I thought it would be fun to see us in the exhibit at the museum."
Other	4	"...because of history of Boston"
I wanted to post.	3	"So I could post content."
It sounded like a good idea.	2	"thought it was a great idea"
No answer	2	--

Data indicate that the factors that motivated people to sign up for the “Baseball Stories” website were similar to the factors that motivated people to post their stories. Of the 36 people who said they posted a story on the “Baseball Stories” website, 30 web user survey

¹⁵ Totals add up to more than 45 because some responses fit into more than one category.

participants answered a question about why they decided to post a story to the website. The most common answer that people gave (15 of 36 survey respondents) was that they posted a story because of their desire to share that story. One of these respondents said, “[I wanted to post a story because] I thought my story had a good Boston twist so I submitted it.” The second most common answer (9 of 36) was that they posted a story to the website for a particular family member. One such participant wrote, “[I posted a story] so my daughter could see her picture during the visit.” See Table 8 for more information.

TABLE 8. Responses to the Open-Ended Web User Survey Question: “Why did you decide to post a story to the ‘Baseball Stories’ website? (N=36)¹⁶

	Number of Question Respondents	Example Response
I wanted to share a story.	15	"We had a great story"
I posted for a family member.	9	"I wanted to bring attention to my uncle."
Other	4	"To see how it worked..."
I wanted to be part of an exhibit.	3	"I thought it would be cool for us to see it at the exhibit"
No answer	6	--

These data indicate that “Baseball Stories” website users saw the website as a place to express their personal connections to baseball. Collectively, these data indicate that there are three strong elements that motivated “Baseball Stories” website users who participated in the web survey to sign up for and post on the website:

1. The desire to involve their family;
2. The desire to share a story; and
3. A love of baseball.

These data seem to show that in order to encourage posts to future user generated content websites, the Museum should ensure that the content they are asking people to post is highly personal and involves their families.

1.4 Most website users found all the baseball stories engaging and showed little difference in their preference for videos or photographs.

Participants of the web user survey, who said they viewed stories on the “Baseball Stories” website, were asked an open-ended question to determine which stories they found the most engaging. Of the 32 people who said they viewed stories on the website, 29 people responded to this question. Nearly a quarter of the question respondents (7 of 32) found stories from famous people to be the most engaging. One of these participants said, “[I found] the stories

¹⁶ Totals add up to more than 36 because some responses fit into more than one category.

from some local sports legends [most engaging].” The same number of question respondents (7 of 32) found other families’ stories the most engaging. One of these participants said, “I enjoyed family-oriented stories, mostly those that involve older fans passing their love of the game to their kids.” As seen in the example responses in Table 9, web survey participants indicated that the personal aspect of the baseball stories they watched on the website was important to them, whether the stories were from famous people, other people’s families, or their own families.

TABLE 9. Responses to the Open-Ended User Web Survey Question: “Which baseball stories did you find the most engaging? Why?” (N=32)¹⁷

	Number of Question Respondents	Example Response
Stories from famous people	7	"Local celebs"
Other's family stories	7	"The heartwarming stories from other families were the best. Having shared my own gave me a great comfort in sharing theirs."
No stories in particular	6	"Some of them, because it would be interesting to write a book."
Other	3	"The story about the Bill Lee graffiti on the bridge next to the museum. ..."
Stories that contained a personal aspect	3	"personal experience by baseball fans"
I don't remember.	3	"I don't recall. It was a while ago that I visited..."
No answer	3	--
Red Sox stories	2	"Red Sox stories because that is the team I root for particularly Johnny Pesky."
My family's stories	2	"I really only wanted to see and show my kids their picture on the screen."

The 32 survey respondents, who said they viewed stories on the “Baseball Stories” website, were also asked which of the stories they felt were the least engaging. Of these 32 potential respondents, 29 people answered the question. Most of the question respondents (11 of 32) said that there were not any stories that they did not find engaging. However, just under one-fifth of the question respondents (6 of 32) reported being the least engaged in pictures that lacked context or story description. One participant said, “[The least engaging pictures were] when people just put up a snapshot of themselves at a game.” Also, three of the 32 question respondents noted that stories involving public figures or professional players were the least engaging. One such participant wrote, “The ones that involve public figures (e.g., sportswriters) [were least engaging to me]. These were fine and I enjoyed them, but not as much as those of average everyday people like me. For instance, I can relate to the excitement of meeting a favorite player more so than a media professional's interaction therewith.”

¹⁷ Totals add up to more than 32 because some responses fit into more than one category.

TABLE 10. Responses to the Open-Ended User Web Survey Question: “Which baseball stories did you find the least engaging? Why?” (N=32)¹⁸

	Number of Question Respondents	Example Response
Not applicable/none	11	"None"
Other	6	"College baseball because I am not interested."
Photos lacking supporting context or a story	6	"when people just put up a snapshot of themselves at a game"
No answer	3	--
Stories involving public figures or professional baseball players	3	"the interviews by the professional media"
I don't know / can't remember.	3	"Don't remember."

In addition to the above questions, all the survey respondents were asked five point Likert scale questions about whether they agreed that the picture stories and video stories were interesting. The mean ratings for each of the story types were the same (picture stories: N=45, M=4.2, SD=0.9; video stories: N=41, M=4.2, SD=0.9). However, the proportion of question respondents (38 of 45) who agreed that the picture stories were interesting was slightly higher than the proportion of question respondents (33 of 41) who agreed that the video stories were interesting, indicating that the website users had a slight preference for the picture stories.¹⁹

These data indicate that the “Baseball Stories” website users had almost an equal preference for the non-celebrity and celebrity stories. This is likely indicative of the strong attraction that the website users had to baseball and all the stories associated with it. These data also show that stories of individuals are interesting and important to users and were important to include as a part of the “Baseball Stories” project.

2. “BASEBALL STORIES” KIOSK USERS AND THEIR EXPERIENCES

The three main findings about the users of the “Baseball Stories” exhibition kiosk and their experiences are the following:

1. Most kiosk users said they were not interested in posting a story, but those who were said they would do so if they had a good story.
2. Most kiosk users used the kiosk to watch baseball stories rather than to send an email or add their story to the queue.
3. Most kiosk users found videos and stories about famous people to be the most engaging.

¹⁸ Totals add up to more than 32 because some responses fit into more than one category.

¹⁹ Question respondents were said to agree with the statement if they picked a 4 or 5 on the five point Likert scale (1 “strongly disagree” to 5 “strongly agree”).

2.1 Most kiosk users said they were not interested in posting a story, but those who were said they would do so if they had a good story.

“Baseball Stories” kiosk users who participated in the exit survey were asked whether they had posted a story, and almost all of them said no (41 of 43 survey respondents). They were also asked an open-ended question about what would make them decide to add a story to the exhibit. Again, most commonly participants (10 of 43 survey respondents) said they would not be interested in posting a story or that the question was not applicable to them. One of these visitors said, “I didn’t want to add a story.” However, other survey participants said they would be interested in posting a story. Some participants (6 of 43 survey respondents) indicated that having a good story would motivate them to post. One visitor said, “[I would post] if I had a monumental baseball story.” Other participants (4 of 43) stated that a particular family member would be a motivation for them to post. One participant wrote, “[I] want to do it as a family-[we] will probably [add a story] today” (Table 11).

TABLE 11. Responses to the Open-Ended Exit Survey Question: “What would/did make you decide to add your own story to the exhibit?” (N=43)

	Number of Survey Respondents	Example Response
No answer	19	--
Having a good story	6	"If I had a more interesting story to tell"
I'm not interested in posting a story.	5	"Nothing."
Not applicable	5	"N/A"
A family member would / did motivate me	4	"Partaking w/nephew & adding to story list is fun & a memory to share."
Having more time	2	"If I had the time to put it all together."
If better resources were provided at the MOS exhibit	2	"Better computer response time."

In order to learn more about why kiosk users may or may not want to post stories to “Baseball Stories,” the visitors who took part in the usability study were asked if they would add a story when they got home and why. Of the ten people who took part in the usability study, most of them (6 of 10 participants) said they would either not or probably not add a story. Only one participant (of 10) responded that he would add a story. He said, “Yeah, [I would] do it with my nephew. His first trip was Jason Bay's first game...” The other three participants (of 10) said they might add a story when they get home. One of these participants said, “[I] might tell my kids they can add [a story]” (Table 12).

TABLE 12. Responses to the Open-Ended Kiosk Usability Test Question: “Will you add a story when you get home? Why or why not?” (N=10)

	Number of Participants	Example Response
No	3	"No, I don't want to."
Probably not	3	"Probably not, don't really have one."
Maybe	3	"Maybe if I could find one. I have been to a few games."
Yes	1	"Yeah, do it with my nephew. His first trip was Jason Bay's first game. The exhibit's for all age levels - cool."

The motivations that the kiosk users have for adding a story are similar to those reported by web survey respondents who said they were motivated to post stories either because of their families or because they had a story they wanted to share. However, despite this similarity in motivation to post, a big difference between the kiosk users and the website users was that very few kiosk users appear to actually want to post a story to “Baseball Stories.” Therefore, it may be difficult to convince most exhibition visitors to post content. In order to increase the number of visitors posting to a website, the Museum may want to consider the following:

- Allowing visitors to post their stories in the exhibition or
- Increasing the types of content visitors can post so that they are not confined to only posting pictures or videos but can also post narratives and audio recordings.

2.2 Most kiosk users used the kiosk to watch baseball stories rather than to send an email or add their story to the queue.

Observations reveal that the 40 visitors who were observed using the “Baseball Stories” kiosk in *Baseball As America* spent a mean time of 1 minute and 39 seconds (SD=2 minutes, 3 seconds) at the component. Almost all of these visitors (36 of 40) were observed to watch the stories at the kiosk. Of the people who watched stories, most saw both a Museum of Science and non-Museum of Science story (18 of 36 visitors) while fewer saw only a non-Museum of Science story (11 of 36 visitors) or only a Museum of Science story (8 of 36 visitors). Few people (12 of 40) interacted with the computer attached to the kiosk that would allow them to send an email or find a story. Of those who picked “Find Your Story” (7 of 12 visitors), no one actually added a story to the cue. In addition, very few of the observed visitors (2 of 12) picked the option to send an email, and none of the people who picked this option actually followed through and sent an email (Table 13).

TABLE 13. Activities Visitors Were Observed Doing at the “Baseball Stories” Kiosk. (N=40)

	Number of Visitors
<i>Watch stories</i>	36
Watch both types of stories	18
Watch only a non-MOS story	11
Watch only a MOS story	8
<i>Interact with the computer</i>	12
Pick “Find Your Story”	6
Pick “Send an Email”	1
Pick both	1
Didn’t pick either	4
<i>Read the text label</i>	5

There may be a few reasons for these observed behaviors. First of all, watching the stories was a passive process. This made it very easy for those who decided to interact with the “Baseball Stories” kiosk to either stand around or sit down and watch the stories. Secondly, it seemed that visitors did not understand the function of the computer attached to the kiosk. Visitors seemed to think that the kiosk would allow them to add any story to the “Baseball Stories” cue. When visitors realized that this was not the case they discontinued their use of the computer because none of them had created a story before attending the exhibition. Visitors also did not know what email they would be sending to themselves before they picked this function. It seemed that when they realized that their options for sending an email only included reminding themselves or their families to post a story or joining the Museum’s E-News list that they were no longer interested and again discontinued their use of the computer.

“Baseball Stories” web users were asked also about their interactions with the exhibition kiosk. Most “Baseball Stories” web survey respondents said that they not only visited the *Baseball As America* exhibition (31 of 45 web survey respondents) but also that they had used the “Baseball Stories” kiosk (23 of 45 web survey respondents). These 23 web survey participants were asked to report the activities they participated in while at the “Baseball Stories” kiosk. The data show that almost all of these question respondents reported viewing others’ stories (19 of 23 question respondents) and/or their own stories (15 of 23 question respondents). Only a few web survey respondents said they had interacted with the kiosk computer in any way except adding their story to the cue or viewing a story. These web survey respondents said they interacted with the exhibition kiosk by sending an email to themselves (1 of 23 question respondents) or their friends (5 of 23 question respondents) or signing up for the Museum’s E-News (2 of 23 question respondents) (Table 14).

TABLE 14. Responses to Close-Ended User Web Survey Question: “What did you do when you used the ‘Baseball Stories’ computer interactive in the *Baseball As America* exhibition?” (N=23)²⁰

	Number of Question Respondents
Viewed other stories	19
Viewed my story	15
Sent an email reminder to my friends or family	5
Directed others to view my story	3
Other	3
Signed up for the Museum E-news	2
Sent an email reminder to myself	1

These data indicate that most of the website users attended the *Baseball As America* exhibition after they had created a story and that they used the “Baseball Stories” kiosk to view the “Baseball Stories” that they had created. This is unlike the general kiosk users who had no stories to add to the cue and generally only used the kiosk to view others’ stories. This may be because the website users created their stories specifically so that they could watch them in the exhibition. However, like the general *Baseball As America* visitors, the website users were likely to remember watching some stories other than their own. This is likely because stories added to the cue did not pop to the top of the cue. In addition, the website users tended not to use the email functions of the kiosk’s computer. This is likely because the most website users had created their stories before attending the exhibition and did not need a reminder to create their story. They were also unlikely to use the other kiosk email functions. This may be because they were already at the exhibition with their friends and family or because they did not want to place themselves or their family and friends on any Museum of Science email lists.

2.3 Most kiosk users tended to find the videos and stories about famous people to be the most engaging.

People who used the “Baseball Stories” website in *Baseball As America* were asked on the exit survey what they felt was the most engaging story that they viewed. The most common response (19 of 43 survey respondents) was that the most engaging stories on the “Baseball Stories” kiosk were those having to do with famous people. One of these visitors said, “[I found the story about] the reporter explaining his wife's delivery of their son [most engaging], because our 1st born daughter (who was 5 weeks early) was born while my husband was at the June 3, '97 Red Sox/Yankees game - but made it for her delivery.” The kinds of stories from famous people that participants referenced in the exit survey as being most engaging fell into the following distinct groups:

- Stories involving major league players: “Babe Ruth”

²⁰ Totals add up to more than 23 because some respondents took part in multiple activities.

- Stories involving other figures in the baseball industry: "Sports casters talking about personal accounts and the Red Sox management."
- Stories involving public figures: "Click & Clack..."

The second most common response that survey respondents gave to this question was that they found personal stories most engaging (12 of 43 survey respondents). One of these respondents said, “[The story I found most engaging was the one about] the young man seeing Fenway + Green Monster [for the] 1st time with his dad. Reminds me of when we brought our children and their reactions.” See Table 15 for other responses to this question.

TABLE 15. Responses to the Open-Ended Exit Survey Question: “Which of the stories that you viewed did you find the most engaging? Why?” (N=43)²¹

	Number of Survey Respondents	Example Response
Stories from famous people	19	"Ted Williams"
Personal Stories	12	"First time at Fenway ... wanted to see if it was like my story."
No answer	8	--
Only read a small number / not enough to answer question	5	"Did not see all"
Stories involving baseball fans	4	"...I like to hear other fans' experiences."
Stories involving baseball history	2	"... Shows the history & past appeal!"
Videos better for story telling	1	"I saw one video + two pictures video is more engaging - it changes + tells more of a complete story"

In addition to the above question, the visitors who participated in the exit survey were asked to indicate if they found the videos and pictures at the “Baseball Stories” kiosk “not at all engaging”, “somewhat engaging”, “engaging”, or “very engaging.” Surveyed visitors found the video stories (N=43, M=3.3, SD=0.7) significantly more engaging than the picture stories (n=40, M=2.9, SD=0.9)²² (t=2.36, df=71.08, p=0.021).

Unlike the web survey users, the kiosk users showed a clear preference for the video “celebrity” stories. This may be because the kiosk users felt more of an attraction to hearing the stories of the people they were familiar with – celebrities – while the web users felt an attraction to all baseball stories because they reflected the stories they were telling themselves. The general kiosk users were also more interested in the videos than the website users. It is possible that this is because they found the videos more interactive and engaging than the passive photographs. These data indicate the importance of not just placing visitor stories in an exhibition but also creating a space for “celebrity” stories which may be attractive to a broader range of visitors.

²¹ Totals add up to more than 43 because some responses fit into more than one category.

²² Three people did not answer the question about how engaging the picture stories were.

3. SUGGESTED IMPROVEMENTS TO THE “BASEBALL STORIES” DELIVERABLES

Despite generally liking the “Baseball Stories” deliverables, there were some ways that people felt the exhibition kiosk and website could be improved. The two main suggested improvements to the “Baseball Stories” website and kiosk were the following:

1. Website users said the “Baseball Stories” website was fairly easy to use but that they wanted to be able to more easily find stories on the website.
2. Kiosk users felt that there were some usability issues with the “Baseball Stories” kiosk and that they wanted to be able to search for stories.

3.1 Website users said the “Baseball Stories” website was fairly easy to use but that they wanted to be able to more easily find stories.

Overall, it was found that people liked the “Baseball Stories” website and felt it was different from other museum websites. The people who answered the web survey were asked to rate their agreement with the statement “I liked the ‘Baseball Stories’ website” on a scale of 1 (strongly disagree) to 5 (strongly agree). The mean rating given by the web survey respondents was 4.3 (N=45, SD=0.9) with most of the respondents (40 of 45) choosing either a 4 or 5 for their rating. The web survey respondents were also asked to rate the statement “The ‘Baseball Stories’ website is different from other museum websites” on a scale of 1 (strongly disagree) to 5 (strongly agree). The mean rating question respondents gave this statement was 4.2 (n=40, SD=1.0) with most of the most respondents (33 of 40) choosing either a 4 or 5.²³

The website users were also asked about the usability of the website. Generally website users seemed to have few problems using the “Baseball Stories” website. People who answered the user web survey were asked to rate the statement “It is easy to create a profile” on a scale of 1 (strongly disagree) to 5 (strongly agree). The mean rating was 4.2 (n=43, SD=1.1) with most of the respondents (35 of 43) choosing a rating of 4 or 5.²⁴ The web users were also asked to rank the statement “It is easy to upload a story” on a scale of 1 (strongly disagree) to 5 (strongly agree). The mean rating was 4.0 (n=41, SD=1.3) with most question respondents (30 of 41) rating the statement a 4 or 5.²⁵ These data indicate that website users felt that it was relatively easy to both join the “Baseball Stories” website and add a story to it.

However, when the website users were asked what improvements should be made to the “Baseball Stories” website, they did have some suggestions. Many participants (16 of 45) did not answer this question and some users (5 of 45) felt the website did not need to be improved. Still, the most common response (8 of 45) of those that did answer the question

²³ Five people said that the statement “The ‘Baseball Stories’ website is different from other museum websites” was not applicable to them and so did not provide a rating for the statement.

²⁴ Two people said that the statement “It was easy to create a profile” was not applicable to them and so did not provide a rating for the statement

²⁵ One web user survey respondent did not rate the statement “It is easy to upload a story.” Another three survey respondents said this statement was not applicable to them and so did not provide a rating for the statement.

was that they felt it should be easier to search for stories on the website. One of these participants said, “It would be nice for visitors to look up a specific story with a name or keyword.” Another said, “[It would be nice to be able to do] sorting and filtering by type of story.” In addition, some of the survey respondents (5 of 45) asked for the website to be more user-friendly. One participant said, “Make it easier to upload photos and stories.” Other responses to this question can be seen in Table 16.

TABLE 16. Responses to the Open-Ended User Web Survey Question: “How could we improve the ‘Baseball Stories’ website?” (N=45)

	Number of Survey Respondents	Example Responses
No answer	16	--
Make it easier to find / search for stories	8	"Better sorting/searching of photos/videos"
There are no improvements.	5	"Keep it open the way it is it includes everyone"
Make it more user friendly	5	"Make sure mac users can use."
I'm not sure.	4	"I don't know."
Improve the presentation of media	4	"Time limit on videos."
No comment	3	"No comment"

These data indicate that though web users were by and large happy with the “Baseball Stories” website, they did feel there was some room for improvement. Most especially, the website users seemed concerned with their ability to search for stories on the website. Therefore, in future user generated content projects, the Museum should consider ways they can help users easily search for their own stories as well as include additional search parameters such as content or file type.

3.2 Kiosk users felt that there were some usability issues with the “Baseball Stories” kiosk and that they wanted to be able to search for stories.

Overall, people liked the “Baseball Stories” kiosk in *Baseball As America*, though web users liked the kiosk less and were less likely to think the kiosk was different from other Museum of Science interactives. The “Baseball Stories” kiosk users that participated in the exit survey were given a Likert scale that asked them to rate the kiosk on a scale of 1 (disliked the story component) to 5 (liked the story component). The mean rating was 4.6 (n=40, SD=0.7) with almost all the participants choosing a 4 or 5 (38 of 40).²⁶ Exit survey respondents were also asked to rank the kiosk on a scale of 1 (similar to other components) to 5 (different from other components). The mean rating for this Likert question was 4.2 (n=37, SD=0.9) with most question respondents (29 of 37) rating the question a 4 or 5.²⁷ These data indicate that “Baseball Stories” kiosk users who answered the exit survey generally liked the component and felt it was different from other Museum components.

²⁶ Three exit survey respondents did not rate how much they liked or disliked the story component.

²⁷ Six exit survey respondents did not rate how similar or different the kiosk was to other Museum components.

Website users did not rate the kiosk component as highly. The 23 web user survey respondents, who said they used the “Baseball Stories” kiosk, were asked to rate their agreement with the statement “I liked the ‘Baseball Stories’ computer interactive” on a scale of 1 (strongly disagree) to 5 (strongly agree). The mean rating was 3.7 (n=22, SD=1.5) with most question respondents (14 of 22) rating the statement a 4 or 5.²⁸ These web user survey respondents were also asked to rank the statement “The computer interactive was different from other Museum of Science interactives” on a scale of 1 (strongly disagree) to 5 (strongly agree). The 18 question respondents gave this statement a mean rating of 3.8 (SD=1.4) with most question respondents (11 of 18) ranking this statement a 4 or 5.²⁹ Though these ratings are lower than the ratings found on the exit survey, they still indicate that the website users generally liked the “Baseball Stories” component and felt it was different from other Museum of Science components.

When the “Baseball Stories” website users that participated in the web survey were asked how the computer interactive in the *Baseball As America* exhibition could be improved, the most common response (6 of 23 question respondents) was that they wanted to be able to more easily find and search for stories on the computer interactive (Table 17). One participant wrote, “Make it possible to choose which stories to view, and easier for you or other people to find your own story/picture.” The 23 survey respondents who said they had seen or used the kiosk in *Baseball As America* were also asked to rate their agreement with the statement “It was easy to find my story” on a scale of 1 (strongly agree) to 5 (strongly disagree). The mean rating of this statement was 3.1 (n=20, SD=1.9) and half the respondents (10 of 20) rated the statement a 4 or 5.³⁰ This means that visitors were split as to whether it was easy to find their story on the kiosk.

²⁸ One web user survey respondent, who said they had seen or used the computer interactive in *Baseball As America*, did not rate the statement “I liked the ‘Baseball Stories’ computer interactive.”

²⁹ One web user survey respondent, who said they had seen or used the computer interactive in *Baseball As America*, did not rate the statement “The computer interactive was different from other Museum of Science interactives.” Another four survey respondents said this statement was not applicable to them and so did not provide a rating for the statement.

³⁰ One web user survey respondent, who said they had seen or used the computer interactive in *Baseball As America*, did not rate the statement “It was easy to find my story.” Another two survey respondents said this statement was not applicable to them and so did not provide a rating for the statement.

TABLE 17. Responses to the Open-Ended User Web Survey Question: “How could we improve the ‘Baseball Stories’ computer interactive in the *Baseball As America* exhibition?” (N=23)³¹

	Number of Question Respondents	Example Responses
Make it easier to find / search for stories	6	“It would be nice to find a story by keyword or name without a password so I could look up friend's stories.”
No answer	6	--
It is good / great as it is.	4	“keep it the same”
Make it work faster	3	“Get stories up faster.”
Other	3	“I can't remember the specifics now, but I don't think that it was too difficult.”
Fix technical problems	2	“You could make sure that it works !!!”

The actions of the visitors who were observed using the “Baseball Stories” kiosk illustrated that many of them thought that they should be able to pick the stories they wanted to watch on the kiosk. Of the 40 people who were observed using the “Baseball Stories” kiosk, 15 of them either touched the “On Deck” screen to attempt to pick a story or seemed to try to pick a story by touching “Find your story” on the kiosk computer. In addition, of the 10 visitors who took part in the usability study, seven of them had some difficulty adding a story to the cue. These seven participants collectively had several problems. These problems ranged from having trouble figuring out how to select a story to problems with the keyboard. The second task that visitors were asked to perform was to use a given name and email address to send a reminder email through the kiosk. Of the seven focus subjects asked to perform this task, six were able to successfully send an email and had no problems doing so. The data indicate that this second task was less complicated than adding a story to the cue.

The usability study participants were also asked what improvements could be made to the kiosk. A few of these visitors (2 of 10) felt that they would like to be able to search the stories. One of these participants said, “[The kiosk is] too confusing - unclear what the purpose is. It seems it should be able to pick the stories and you can't.” Other participants of the usability study (3 of 10) said that the kiosk would be better if different stories were added. One participant said, “Nothing confusing about it. What would make it neat - if you want my opinion - set something up to make a live story. That's interaction. People want to interact when they're here.” See Table 18 for other responses to this question.

³¹ Totals add up to more than 23 because some responses fit into more than one category.

TABLE 18. Responses to the Open-Ended Kiosk Usability Testing Question: “What changes could we make to improve this interactive?” (N=10)³²

	Number of Usability Study Participants	Example Responses
Add different stories.	3	"Yankees stories need to be added."
I needed to read the label.	3	"Pretty explanatory if I had read the label."
It was good.	2	"really good."
Other	2	"Didn't understand the whole process. I can't think of what to do to change it though."
Change technical aspect	2	"make it lower for kids to be involved in it. pressed the screen..."
Allow people to choose story	2	"Cool if could search stories and make them play."

The “Baseball Stories” kiosk users that participated in the exit survey were also asked an open-ended question about what changes could be made to improve the story component. The greatest proportion of the survey respondents did not answer the question (13 of 43). Of those who did answer the question, many thought that it was great (10 of 43 survey respondents) or that nothing needs to be changed (5 of 43 survey respondents). One of these participants said, “I think it is great exactly the way it is presented.” However, other survey respondents (7 of 43) thought that the kiosk could be improved if it worked faster. A visitor wrote, “[The kiosk could be improved with] quicker picture times.” Still other respondents (6 of 43) suggested adding more stories of a particular nature. One participant said, “It would be great to hear from players’ families. What players were like during their little league years.” See Table 19 for more information.

TABLE 19. Responses to the Open-Ended Exit Survey Question: “What changes could we make to improve the story component?” (N=43)³³

	Number of Survey Respondents	Example Responses
No answer	13	--
It was great / interesting.	10	"I think it is great exactly the way it is presented."
Make it work faster	7	"Picture stories – stayed on the screen too long."
More stories of a particular nature	6	"more baseball stories from players and fans ..."
Nothing	5	"Nothing"
Other	5	"It might be nice to be able to select which one to see."

It is important to put the answers that the exit survey generated to the question of how the exhibit can be improved into the proper context. The vast majority of participants in this

³² Totals add up to more than 10 because some responses fit into more than one category.

³³ Totals add up to more than 43 because some responses fit into more than one category.

survey were visitors who solely engaged with the “Baseball Stories” kiosk but did not create a story for the website. Consequently, they came to the kiosk with differing objectives than those visitors who had posted stories. Exit survey participants were concerned with the aesthetics of the presentation of the stories (how fast or slow the pictures appeared on the screen) over the technical concerns about how to cue stories on the kiosk.

These data indicate that when creating future user generated content kiosks, the Museum should consider the following:

- Making sure that any stories cycle at an appropriate pace,
- Allowing visitors to choose the stories that they watch whether they created the content or not, and
- Making sure that the method to cue stories is as intuitive and simple as possible.

IV. CONCLUSION

The purpose of this evaluation was to understand who used the user generated content “Baseball Stories” deliverables created for *Baseball As America* by the Museum of Science, how they were used, and what lessons could be learned that can be applied to future user generated content projects. The Information and Interactive Technology Department at the Museum of Science created two deliverables for the “Baseball Stories” project: a website where visitors could post and watch stories about peoples’ experiences with baseball and an exhibition kiosk where visitors could view stories as well as email themselves reminders to post stories or join the Museum’s E-News list.

The evaluation results indicate that males and females of many ages used both the website and the *Baseball As America* kiosk. However, the people who joined the online community and posted stories were different from the general exhibition users. Those who decided to post a story were likely to have had past experience posting content to a website – particularly Facebook – and they seemed to view the “Baseball Stories” website as another kind of social networking experience. In addition, those who posted stories seemed compelled to do so because of their interest in baseball, their feeling that they had a story to share, and their sense that they wanted to involve their family in the exhibition and this project. The kiosk users in contrast generally did not feel compelled to create or post a story, but felt that they may post a story if they had one to share or if they had family members who they felt should be a part of this project.

People who joined the “Baseball Stories” online community used the website in a variety of ways. They almost always created and posted a story. In addition, they were likely to use the website to view stories—particularly those besides their own. Many of the “Baseball Stories” online community members also used the kiosk located in the *Baseball As America* exhibition. In this case they were more likely to try to view their own stories rather than others’ stories indicating that one of the reasons they wanted to create a story was to be a part of the exhibition. The online community members were not likely to send themselves emails from the kiosk. Instead they created their stories and joined the online community based on prompting from the Museum website before they attended the exhibition.

Other “Baseball Stories” users who had not joined the online community used the exhibition kiosk differently. They were very unlikely to cue their own stories – indicating that the community of people who created stories was small and that most of those who used the kiosk had not created a story. However, they were very likely to view some of the stories and tried to exert some control over the stories they watched. They were not very likely to use the kiosk computer to send themselves email. Very few people were observed to go through the process of sending an email. Those who started this process often quit before they sent an email once they realized that the emails would send them a reminder or let them join the Museum’s E-News list.

While users of the kiosk and the website were happy with these deliverables by and large, they did have some suggestions for improvements. Users of both the kiosk and website seemed to want to have more control over which stories they were able to view. Many kiosk users seemed to think the “On Deck” queue was a touch screen that would allow them to choose which story

they viewed. In addition, it seemed that many people who attempted to use the kiosk computer were trying to find and queue stories. Users of the website also expressed that they wished it had been easier to find and view stories based on the type of media or content they contained. Kiosk users and website users also expressed a desire for these deliverables to be more user-friendly. Kiosk users wanted the stories to cycle more quickly, and website users wanted to be able to upload their stories and navigate the website more easily.

Based on these findings, the following are suggestions for ways to increase the number of people posting stories:

- Market the website through not only Museum sources like the exhibition, website, and *Sparks!* member newsletter but also through external sources like newspapers and related interest groups;
- Encourage people to create stories using many different types of media (not just pictures or video but also text, audio, or PowerPoint);
- Choose topics that allow people to express a personal or family connection through their stories; and
- Allow people to post stories in various locations (not just through the website but also at the Museum or other locations).

Based on these findings, the following are suggestions for the “Baseball Stories” or other user generated content websites:

- Make sure the website will work for people no matter what the computer type (Mac or PC) or web viewing software (Internet Explorer, Mozilla, etc.) they use;
- Place limits on the stories as needed (make sure the text, audio, or video cannot be too long and that the pictures are appropriate);
- Allow visitors to search for stories in various ways such as by number of views, content of story, or media used (picture or video); and
- Emphasize to users ways that they may share their content with others (such as at the exhibition or through an email link sent to friends and family).

Based on these findings, the following are suggestions for the “Baseball Stories” or other user generated content exhibition kiosks:

- Make sure that stories cycle in an appropriate amount of time;
- Allow visitors to search for stories in various ways such as by number of views, content of story, or media used (picture or video);
- Allow visitors to pick which stories they view;
- Provide a variety of story types including “celebrity” stories which may be of more interest to those who do not wish to create their own stories; and
- Make it easy for people who have created stories to be able to view them in the exhibition (allow them to cue up their story without a password).

REFERENCES

Kollmann, E. K. (2009). *2008 Firefly Watch Citizen Science Project*. Boston: Museum of Science.

Patton, M. Q. (2002). *Qualitative research and evaluation methods*. Thousand Oaks, CA: Sage Publications, Inc.

APPENDIX A: USER WEB SURVEY EMAIL SOLICITATION

From: "Museum of Science" <reply@email.mos.org>
To: [REDACTED]
Date: 09/23/2008 12:44 PM
Subject: We Want Your Feedback

 **Museum of Science**

September 23, 2008

The Museum of Science wants to hear from you! We are looking for feedback from people who have signed up for our Baseball Stories website (mos.org/baseball). Please take 5 - 10 minutes to fill out [this survey](#) and tell us about your experiences with the Baseball Stories website and the companion interactive located in the *Baseball As America* exhibit. In return for your participation, you are invited to join our drawing for two free Omni passes.

[Take the Survey](#)

Thanks for your help!

Elizabeth Kunz Kollmann
Research Associate
Museum of Science, Boston

APPENDIX B: USER WEB SURVEY

Page 1

The Museum of Science is looking for help from people who have signed up for the Baseball Stories website (<http://www.mos.org/create/baseball>) to give us feedback about their experiences. The following survey includes questions to help us better understand your experiences using the website and the companion interactive in *Baseball As America*. After you submit your responses, you will be able to sign up for a drawing for two free Omni passes.

*1. How did you find out about the Baseball Stories website?

(Please check all that apply)

- At the Museum of Science From another email
 From the Museum of Science website From *Sparks!* (Museum of Science member magazine)
 From another website From a friend/family member
 From a Museum of Science email Other:

2. When did you sign up for the Baseball Stories website?

- Before I visited *Baseball As America*.
 During my visit to *Baseball As America*.
 After I visited *Baseball As America*.
 I have not visited *Baseball As America*.

3. Why did you decide to sign up for the Baseball Stories website?

*4. What did you do when you visited the Baseball Stories website (<http://www.mos.org/create/baseball>)?

(Please check all that apply)

- Created and posted a story
 Viewed my story
 Viewed other stories
 Directed others to view my story
 Other:

Done

Local intranet

100%

Page 2 – If the respondent created and viewed stories on the “Baseball Stories” website

Page 2 of 6

5. When did you post your picture or video to the Baseball Stories website?
 (Please check all that apply)

Before I visited *Baseball As America*.
 After I visited *Baseball As America*.
 I have not visited *Baseball As America*.

6. Why did you decide to post a story to the Baseball Stories website?

7. How do you feel about the Baseball Stories website?
 Choose one number on the scale of 1 to 5 for each statement below. Read each statement carefully.

	Strongly Disagree				Strongly Agree	N/A
	1	2	3	4	5	
I like the Baseball Stories website.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The picture stories are interesting.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The video stories are interesting.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is easy to create a profile.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is easy to upload a story.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Baseball Stories website is different from other museum websites.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. Which baseball stories did you find the most engaging? Why?

9. Which baseball stories did you find the least engaging? Why?

10. How could we improve the Baseball Stories website?

<< Back Next >>

Page 2 – If the respondent did not create or view stories on the “Baseball Stories” website

Page 2 of 6

5. Why haven't you posted a picture or video to the Baseball Stories website?


6. How do you feel about the Baseball Stories website?
Choose one number on the scale of 1 to 5 for each statement below. Read each statement carefully.

	Strongly Disagree	1	2	3	4	5	Strongly Agree	N/A
I like the Baseball Stories website.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The picture stories are interesting.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The video stories are interesting.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is easy to create a profile.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is easy to upload a story.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Baseball Stories website is different from other museum websites.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. How could we improve the Baseball Stories website?

Done Local intranet 100%

Page 3

 **Museum of Science**

Page 3 of 6

*8. Did you visit the *Baseball As America* exhibition at the Museum of Science?

Yes
 No

*9. Have seen or used the you the Baseball Stories computer interactive in the *Baseball As America* exhibition?

Yes
 No
 Not Sure

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Page 4 – Only asked if the respondent said they saw the “Baseball Stories” computer interactive

Page 4 of 6

10. What did you do when you used the Baseball Stories computer interactive in the *Baseball As America* exhibition?
 (Please check all that apply)

Viewed my story Sent an email reminder to my friends or family
 Viewed other stories Signed up for the Museum of Science E-News
 Directed others to view my story Other:
 Sent an email reminder to myself

11. How do you feel about the Baseball Stories computer interactive in the *Baseball As America* exhibition?
 Choose one number on the scale of 1 to 5 for each statement below. Read each statement carefully.

	Strongly Disagree	1	2	3	4	Strongly Agree	N/A
I liked the Baseball Stories computer interactive.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It was engaging to view the stories.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It was easy to send an email reminder.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It was easy to find my story.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The computer interactive was different from other Museum of Science interactives.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12. How could we improve the Baseball Stories computer interactive in the *Baseball As America* exhibition?

Done Local intranet 100%

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10. Have you ever placed pictures or video on any of the following websites?
 (Please check all that apply)

No, I have not placed pictures or videos on a website.
 Picnic
 Facebook
 Flickr
 My Space
 YouTube
 Shutterfly
 Other:
 Picasa

11. Please rate your agreement with the following statements.

	Strongly Disagree	1	2	3	4	5	Strongly Agree
I am interested in posting content on the Museum of Science website.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I trust the Museum of Science to appropriately use any content that I post on their website.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am more likely to post content on the Museum of Science website than another website.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am more likely to post content on the Museum of Science website if it will be posted in an exhibition.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12. What science or technology topics would you like to post content about on the Museum of Science website?
 (Please check all that apply)

Animals
 Engineering
 Astronomy
 Geology
 Computers
 Human biology
 Current science and technology
 Nanotechnology
 Dinosaurs
 Other:
 Ecology

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Done Local intranet 100%

Page 6

Museum of Science.

Page 6 of 6

16. What is your gender?

Male

Female

17. What is your age?

18. What is your zip code?

19. What is your relationship to the Museum of Science?
(Please check all that apply)

Museum member Volunteer

Museum visitor Other:

Staff member

20. In what racial or ethnic group do you identify yourself?
(Please check all that apply)

African-American Hispanic/Latino

American Indian or Alaskan Native White, not of Hispanic origin

Asian-American Other:

21. Do you have a temporary or permanent disability?

Yes

No

Done Local intranet 100%

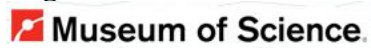
Page 7

Museum of Science.

Thank you for completing the survey. Your responses will be used to help us improve future Museum of Science experiences.

Would you like to enter our prize drawing for two free Omni passes? If so, please click [here](#).

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Your survey responses have been submitted and will remain anonymous. Prize drawings will be conducted in October and winners will be notified by the Museum.

To enter the Museum of Science prize drawing, please provide the following information.

*Name:

Mailing Address:

Email Address:

Finish

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Thank you again for taking the time to complete our survey.

The survey and prize drawing entry process are now complete.

APPENDIX C: EXHIBITION KIOSK OBSERVATION SHEET

Survey #: _____

Date: _____

**Baseball As America User Generated Content
Observation Sheet**

Visitor Information	
Visitors: # Females: _____ Ages: _____ / # Males: _____ Ages: _____	
Group Type: <input type="checkbox"/> Kids only <input type="checkbox"/> Adults only <input type="checkbox"/> Adults and Kids <input type="checkbox"/> Other: _____	
Focus Subject: Gender: _____ Age: _____	

Observation Information

Do the visitors:

- Sit on the bench
- Stand up
- Watch the stories

How many Museum of Science stories do they watch? _____

How many other stories do they watch? _____

- Read the text label

- Interact with the computer
- Send an email reminder to themselves
- Send an email invitation to friends/family
- Sign up for the Museum of Science E-Newsletter
- Sign in to their account
- Add their story(ies) to the cue
- How many stories do they add to the cue? _____
- Have a staff member help them find their story(ies)

- Talk with others
- What do they say?

Amount of time spent at component:

Notes:

APPENDIX D: EXHIBITION KIOSK EXIT SURVEY

Survey #: _____

Date: _____

***Baseball As America* User Generated Content Survey**

Help the Museum of Science improve future exhibits by providing us with feedback.

What is your gender? Male Female **What is your age?** _____ years

How do you feel about the story component? Circle one number on the scale of 1 to 5 for each pair of descriptions below. Read the opposite descriptions carefully.

Disliked the story component	1	2	3	4	5	Liked the story component
Uninteresting content	1	2	3	4	5	Interesting content
Similar to other components	1	2	3	4	5	Different from other components

How engaging were the two kinds of baseball stories?

	Not at all Engaging	Somewhat Engaging	Engaging	Very Engaging
The video stories	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The picture stories	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Which of the stories that you viewed did you find the most engaging? Why?

Did you know you could add your own story to this exhibit? Yes No

Have you posted a story to the exhibit? Yes No

What would / did make you decide to add your own story to the exhibit?

Have you ever placed pictures or video on any of the following websites? (Please check all that apply)

- | | |
|---|---|
| <input type="checkbox"/> No, I have not placed pictures or videos on a website.
<input type="checkbox"/> Facebook
<input type="checkbox"/> My Space | <input type="checkbox"/> Picasa
<input type="checkbox"/> Flickr
<input type="checkbox"/> YouTube
<input type="checkbox"/> Other: _____ |
|---|---|

What changes could we make to improve the story component?

Thank you for your help! Have a great day at the Museum.

APPENDIX E: EXHIBITION KIOSK USABILITY TEST INSTRUMENT

Group #: _____

Date: _____

**Baseball As America User Generated Content
Usability Testing Sheet**

Visitor Information	
Visitors: # Females: _____	Ages: _____ / # Males: _____ Ages: _____
Group Type: <input type="checkbox"/> Kids only <input type="checkbox"/> Adults only <input type="checkbox"/> Adults and Kids <input type="checkbox"/> Other: _____	

ON THEIR OWN, do the visitor(s):

<input type="checkbox"/> Read the text label <u>Notes:</u>	
<input type="checkbox"/> Interact with the computer kiosk <input type="checkbox"/> Choose “Find Your Story” <u>Notes:</u>	<input type="checkbox"/> Choose “Send an Email” <u>Notes:</u>
<input type="checkbox"/> Watch the stories How many MoS stories do they watch? _____ How many other stories do they watch? _____ <u>Notes:</u>	

IF THEY HAVEN’T ALREADY DONE SO, ask the visitor(s) to:

<p>(1) “Please find a story on the kiosk using this email address and password.”</p> <input type="checkbox"/> Successfully add story to the cue <u>Notes:</u>	
<p>(2) “Please use this name and email address to send a reminder email through the kiosk.”</p> <input type="checkbox"/> Successfully send email <u>Notes:</u>	
<p>(3) “Please watch a few of the baseball stories on this monitor.”</p> How many MoS stories do they watch? _____ How many other stories do they watch? _____ <u>Notes:</u>	

Interview Questions

1. What did you think about the computer interactive? [Probes: Likes? Dislikes?]

2. Do you think this computer interactive is different from other Museum of Science interactives? Why or why not?

3. Where do you think the stories came from? [Probe: Were you aware that they were gathered through the Museum's website?]

4. Did you know that you can add your own baseball story to this interactive?
 Yes No

5. Will you add a story when you get home? Why or why not?

6. What changes could we make to improve this interactive? [Probe: Were there any times while you were using the interactive when you were confused or didn't know what to do?]

7. Is there anything else you'd like to add?

APPENDIX F: PRELIMINARY FINDINGS EMAIL

From: "ekollmann" <ekollmann@mos.org>
To: ebottis@mos.org
Cc: creich@mos.org,alstreicher@mos.org
Date: 09/26/2008 05:04 PM
Subject: Baseball Update

Emily-- I just had a chance to look over the Baseball As America data, and I wanted to give you an update about what I've found so far. You can find my very early, very preliminary findings below...

First of all, it appears that the people who signed up for the website and the people attending BAA wanted different things from the Baseball Stories. The people who signed up for the website were split as to whether they found the MoS videos or the other stories more engaging. These users seemed to have a greater appreciation for the baseball stories of regular citizens possibly because they could relate the stories they created to the stories others created. The BAA exhibition visitors found the MoS videos much more engaging than the stories from ordinary citizens.

Overall, everyone said they found the computer interactive and the website usable, but many people said that they wanted to more easily search for stories, and that they wanted to be able to pick which stories they watch. People did not only tell us that they wanted to be able to choose stories, some of their actions indicated that they were trying to make choices about the stories they wanted to watch. Observations and a usability study of the computer interactive showed that visitors tried to pick stories by touching the "On Deck" screen and that some visitors seemed to think that if they touched "Find your story" they would be able to search for and pick stories to watch.

People did not interact with the computer interactive in the exhibition for a very long period of time. On average, visitors spent 1 minute and 39 seconds at the computer interactive watching on average about 2 stories (one MoS and one non-MoS story). Only 2 of the people we observed said that they had already created and posted a baseball story at home. However, a few people said they might create a story when they got home. People were much more likely to watch the stories than interact with the kiosk. Very few people signed up for an email reminder or tried to find a story.

People who created baseball stories did so before they came to the Exhibition, and many said that they said that they watched their story in the exhibition. These people said they decided to post a story because they had a story they felt needed to be shared, because they wanted to be in the exhibition, or because they love baseball. It appears that many of those who signed up for the Baseball Stories website are not necessarily interested in posting to the MoS website again but were really interested in the project because of the baseball topic.

It would be good if we could send out an email to those who have not answered the online survey one more time. I will be gone next week, but it would be best if the email was sent out about Wednesday (a week after the first email was sent out). If you can't get the email sent out next week, that's fine. We can just send the email out when I get back.

Have a great week.

-- Liz

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APPENDIX G: OTHER USER WEB SURVEY DATA

TABLE G1. “Other” Responses to the Close-Ended User Web Survey Question: “How did you find out about the ‘Baseball Stories’ website?” (n=5)

“Other” Responses
“Brochure”
“Harvard Outings and Innings”
“I don’t remember.”
“Newspaper”
“TV”

TABLE G2. Responses to the Open-Ended User Web Survey Question: “Why haven’t you posted a picture or video to the ‘Baseball Stories’ website?” (n=8)

	Number of Question Respondents	Example Response
I haven’t had time.	2	"Have not had time."
No answer	3	--
I encountered usability problems.	2	"I tried but had trouble. I work on a mac with the most up-to-date programs and sometimes these things don't always sync with macs."
Other	1	"My son didn't want me to!"

TABLE G3. Responses to Close-Ended User Web Survey Question: “What did you do when you used the ‘Baseball Stories’ computer interactive in the *Baseball As America* exhibition?” (n=3)

	Number of “Other” Responses	Example Response
Tried to view my story	2	"Tried to view my story"
The kiosk was not working.	1	"It was not working."

TABLE G4. Mean Rating and Participant Agreement with the User Web Survey Statement: “It was engaging to view the stories.” (n=22)³⁴

Mean Rating	SD	Number of Question Respondents ≥ 4
4.0	1.3	17

³⁴ The 23 web user survey respondents who said they used the “Baseball Stories” kiosk in the *Baseball As America* exhibition were asked to rate the statement on a scale of 1 (strongly disagree) to 5 (strongly agree). One web user survey respondent did not rate the statement.

TABLE G5. "Other" Responses to the Close-Ended User Web Survey Question: "Have you ever placed pictures or video on any of the following websites?" (n=4)

"Other" Responses
"Fotki"
"LinkedIn"
"My family"
"My personal web site"

TABLE G6. Mean Rating and Participant Agreement with the User Web Survey Statement: "I trust the Museum of Science to appropriately use any content that I post on their website." (N=45)³⁵

Mean Rating	SD	Number of Question Respondents ≥ 4
4.0	0.9	35

TABLE G7. Responses to the Close-Ended User Web Survey Question: "What science or technology topics would you like to post content about on the Museum of Science website?" (n=45)³⁶

	Number of Survey Respondents
No answer	14
Animals	13
Current science and technology	11
Human biology	10
Astronomy	9
Computers	8
Dinosaurs	7
Engineering	7
Ecology	4
Other	4
Geology	3
Nanotechnology	3
Not sure	3
Genealogy	2
None	2

³⁵ The web user survey respondents were asked to rate the statement on a scale of 1 (strongly disagree) to 5 (strongly agree).

³⁶ Totals add up to more than 45 because some participants said they were interested in posting content about multiple topics.

**TABLE G8. Responses to the Open-Ended User Web Survey Question: “What is your zip code?”
(N=45)**

Zip Code	Number of Survey Respondents
01440	1
01450	1
01453	1
01603	1
01746	1
01772	1
01801	1
01824	1
01867	1
01940	1
01945	1
02045	1
02053	1
02090	1
02127	1
02138	1
02144	1
02155	1
02171	1
02370	1
02452	1
02458	2
02459	1
02482	1
02492	1
02769	1
02882	1
03060	1
03062	1
03102	1
03106	1
03833	1
04061	1
05403	1
06385	1
06443	1
08865	1
11561	1
27705	1
52783	1
77429	1
81005	1
93023	1
No answer	1

APPENDIX H: OTHER EXHIBITION KIOSK EXIT SURVEY DATA

TABLE H1. Responses to the Close-Ended Kiosk Exit Survey Question: “What is your gender?” (N=43)

	Number of Survey Respondents
Male	15
Female	28

TABLE H2. Mean Rating and Participant Agreement with the Kiosk Exit Survey Question: “How do you feel about the story component?” (n=39)³⁷

	Mean Rating	SD	Number of Question Respondents >=4
Uninteresting content - Interesting content	4.5	0.6	36

TABLE H3. Responses to the Close-Ended Kiosk Exit Survey Question: “Did you know you could add your own story to this exhibit?” (N=43)

	Number of Survey Respondents
Yes	28
No	15

³⁷ The 43 kiosk exit survey respondents were asked to rate the statement on a scale of 1 (uninteresting content) to 5 (interesting content). Four kiosk exit survey respondents did not rate the statement.

APPENDIX I: OTHER EXHIBITION KIOSK USABILITY TEST DATA

TABLE I1. Gender of Kiosk Usability Test Focus Subjects. (N=10)

	Number of Usability Study Participants
Male	3
Female	7

TABLE I2. Usability Test Subject Group Types. (N=10)

	Number of Usability Study Participants
Adults only	5
Kids only	0
Adults and kids	5

TABLE I3. Behaviors Usability Test Subjects Were Observed Doing at the “Baseball Stories” Kiosk. (N=10)

	Number of Usability Study Participants
Behaviors subjects did on their own	
<i>Watch stories</i>	5
Watch both types of stories	5
Watch only a non-MOS story	0
Watch only a MOS story	0
<i>Interact with the computer</i>	5
Pick “Find Your Story”	5
Pick “Send an Email”	0
<i>Read the text label</i>	3
Behaviors subjects did with prompting	
<i>Watch stories</i>	5
Watch both types of stories	4
Watch only a non-MOS story	0
Watch only a MOS story	1
<i>Pick “Find Your Story”</i>	10
Successfully cue a story	8
Could not successfully cue a story	2
<i>Pick “Send an Email”</i>	7
Successfully send an email	6
Could not successfully send an email	1

TABLE I4. Responses to the Open-Ended Kiosk Usability Test Question: “What did you think about the computer interactive?” (N=10)³⁸

	Number of Usability Study Subjects	Example Response
I had problems with/didn't like the keyboard.	4	"The keyboard was weird - I liked how raised they were but the keys were too far apart and I had to keep looking at them."
Other	3	"I don't like the stories because they're not Yankee stories..."
It is confusing / has some kinks.	3	"...Took me a minute to figure it [exhibit] out..."
I like the stories.	3	"Pretty cool... that everyone has a story about how baseball affects their life."
I want to be able to cue stories.	2	"Too confusing - unclear what the purpose is. It seems it should be able to pick the stories and you can't."

TABLE I5. Responses to the Open-Ended Kiosk Usability Test Question: “Do you think this computer interactive is different from other Museum of Science interactives? Why or why not?” (N=10)

	Number of Usability Test Subjects	Example Response
Yes, for another reason.	5	"A step above because you get to actually get to see what's on deck, can stay as long as you want to watch the stories."
Yes, because you get to share stories.	2	"I guess in the sense we're seeing local people's stories and not just MOS stories."
No, because it was not interactive.	2	"[I] don't find it interactive..."
Other	1	"Can't answer, haven't been to MOS in 20 years and this is the first exhibit I've been to."

³⁸ Totals add up to more than 10 because some responses fit into more than one category.

TABLE I6. Responses to the Open-Ended Kiosk Usability Test Question: “Where do you think the stories came from?” (N=10)³⁹

	Number of Usability Test Subjects	Example Response
They were contributed by ordinary people.	5	"Different people submitted them online."
Other	3	"Preloaded put in for demo purposes. [I] don't think people wandering here can put them in. Have to know it was here to begin with. [I] don't see a random person saying I have a story to add."
The Museum asked people to contribute a story.	2	"Some MOS asked to contribute. Others I don't know."
Not asked	1	--

TABLE I7. Responses to the Close-Ended Kiosk Usability Test Question: “Did you know that you can add your own baseball story to this interactive?” (N=10)

	Number of Usability Study Participants
Yes	6
No	4

³⁹ Totals add up to more than 10 because some responses fit into more than one category.