
Video iPod Pilot Study

The Objective

The objective of this pilot study was to evaluate the impact on museum visitors regarding their overall experience, orientation, and content enhancement by the inclusion of an iPod-style video interpretive device.

This research project, conducted over the summer of 2006, was a combined effort of The Cleveland Museum of Natural History (CMNH), the Nance School of Business Administration at Cleveland State University, and IMPACT Communications, Inc.

In many institutions, the use of docents, guides, or rangers as interpreters has been reduced and is becoming less practical. This study compared the effect of alternative interpretation through traditional labels and signage, audio tours, and iPod-style video playback devices.

While the pilot study was completed within a natural history museum setting, it is assumed that the results could be similar in informal learning venues such as art museums, historical societies, house museums, botanical gardens, and parks. While further research should be undertaken, this pilot study was designed to evaluate whether video iPods could be a convenient, transparent, and non-invasive interpretive option.

The study was designed to measure visitor satisfaction of the use of various traditional and new media interpretation.

In order to assure that visitors will place an appropriate value on their experiences, the need for interpretation is imperative. Through an interpretive process, visitors can make a personal connection with the subject matter. Because people connect in different ways, the objective is to explore approaches that will maximize the visitor experience. Or, in the words of CMNH, "Discover the nature of *YOUR* universe."™ Additionally, we wanted to discover if this experience is cross-generational, or if its appeal is only to younger visitors.

Since iPod video content can be downloaded from the Internet, in the future we will evaluate its effectiveness as a pre-learning experience and determine if it establishes desired visitor expectations. We will also examine how iPod tours could be used as a valuable informational and promotional tool for the museum.

Technology: Intrusion or Enhancement

The introduction of simple, media-rich, visitor-directed video content in informal learning venues would seem to enhance the interpretive experience. Yet there are some who argue that this type of device could distract from the artifacts and therefore devalue the location.

Similar concerns were expressed when audio interpretive tours were first introduced. Audio tours have been in existence for decades and have gradually gained acceptance.

While in the past these tours required expensive, proprietary equipment with limited functionality, the introduction of cell phones, PDAs, and downloadable audio MP3s have extended the reach of this style of tour. Nevertheless, they remain a single-sensory medium.

In November 2005, Apple Computer introduced the video iPod. Apple reported that 2005 sales of iPods were 32 million units. First quarter sales in 2006 were 14 million units (not broken down by style). While upgrades are assured, most likely including a wireless interface and larger screen, program applications are expected to remain the same and, therefore, content delivery software will be forward compatible.

With public acceptance, the use of a personal video interpretive device, or video iPod, is becoming a popular form of entertainment. Microsoft is projected to enter the market before the Christmas 2006 selling season with comparable technologies.

The Usage

While iPods may be an icon of the young, their acceptance is quickly becoming cross-generational.

- 2005 sales of iPod-style devices represented \$4.23 billion
- Apple maintained a 77% market share
Source: June 30, 2006 Ipsos report

- 54% of Americans 12-17 years old have iPods or similar devices
- 30% of Americans 18-34
- 13% of Americans 35-54
- 5% of Americans 55+
Source: June 30, 2006 Ipsos (a global market research firm) report

- 1 in 5 Americans over the age of 12 owns an iPod-style player
- 1 in 20 Americans owns multiple players
Source: June 30, 2006 Ipsos report

- iPod ownership directly correlates with household income
- It is 40% more likely for African-Americans and English-speaking Latinos to own iPods than non-Latino whites.
Source: 2005 PEW Study of American Life Project

- Approximately 25% of iPod owners claim that their devices have the TV shows, movies, and similar content. The desire to view visual content was particularly strong among younger consumers who have experience with downloading.
Source: June 30, 2006 Ipsos report

- “The desire for multimedia content is reaching a turning point where consumers are truly recognizing the value of anytime, anywhere content on-the-go.”
Source: June 30, 2006 Ipsos report

Crafting the Message

For the pilot study, all stops were selected and developed by IMPACT with input and approval from CMNH. Various presentation styles were used to evaluate visitor preference. Styles included third-person narrative, on-camera authority figure, and storytelling.

Visitors were not expected to follow a specific route; all stops were independent of one another (nonlinear). Numbered signage denoted stops on the tour.

Video segments included original video, historic photos and film, graphics, and animations. Audio included voiceover narration, music, and sound effects.

Digital media was compressed for video or audio downloads on iTunes.

Existing label copy was not modified nor developed for this study.

The Evaluation Process

The CMNH docent staff randomly selected museum visitors for evaluation. They ranged in ages from 13 to 65+ with a sample size of 100.

Visitors were told that research was being conducted using their opinions on interpretive approaches, and their experiences with exhibits within the museum.

Upon agreement to participate, they were given a map of the museum with three specifically marked stops. Participants were asked to read the label, listen to audio, and watch a video clip at each of the stops. They were also asked to circle how they felt about the experience on a scale from 1 to 10; 1 being "Didn't do much for me" and 10 being "I liked it!"

A short questionnaire to be completed and returned before leaving the museum was also distributed to the study participants. In the questionnaire, they were asked to select their age group and circle when, or if, they have visited the museum.

In addition, participants were asked to rate the ease of the hardware operation and to indicate their general satisfaction with the experience.

The Results

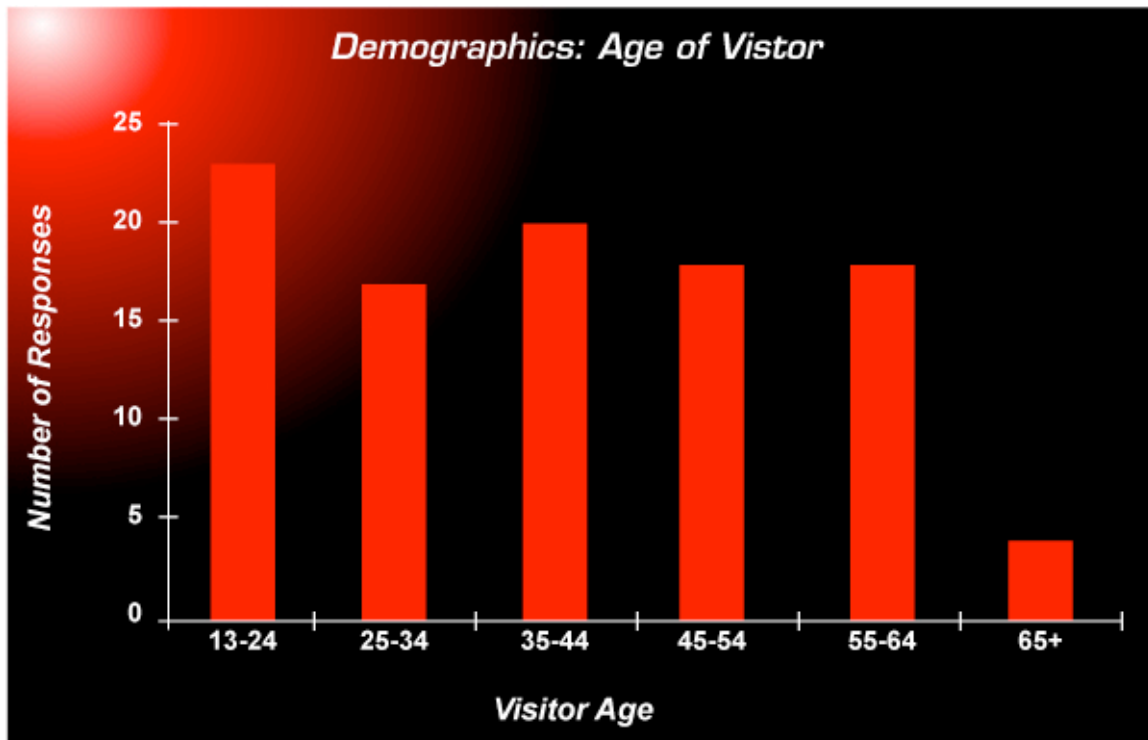
This study was designed to test assumptions and determine their validity in a real-world environment. Primary assumptions made were as follows:

1) Media-rich devices engage visitors and allow both audio and visual enhancement of exhibits. Complex ideas can be appropriately expressed to appeal to a variety of learning styles.

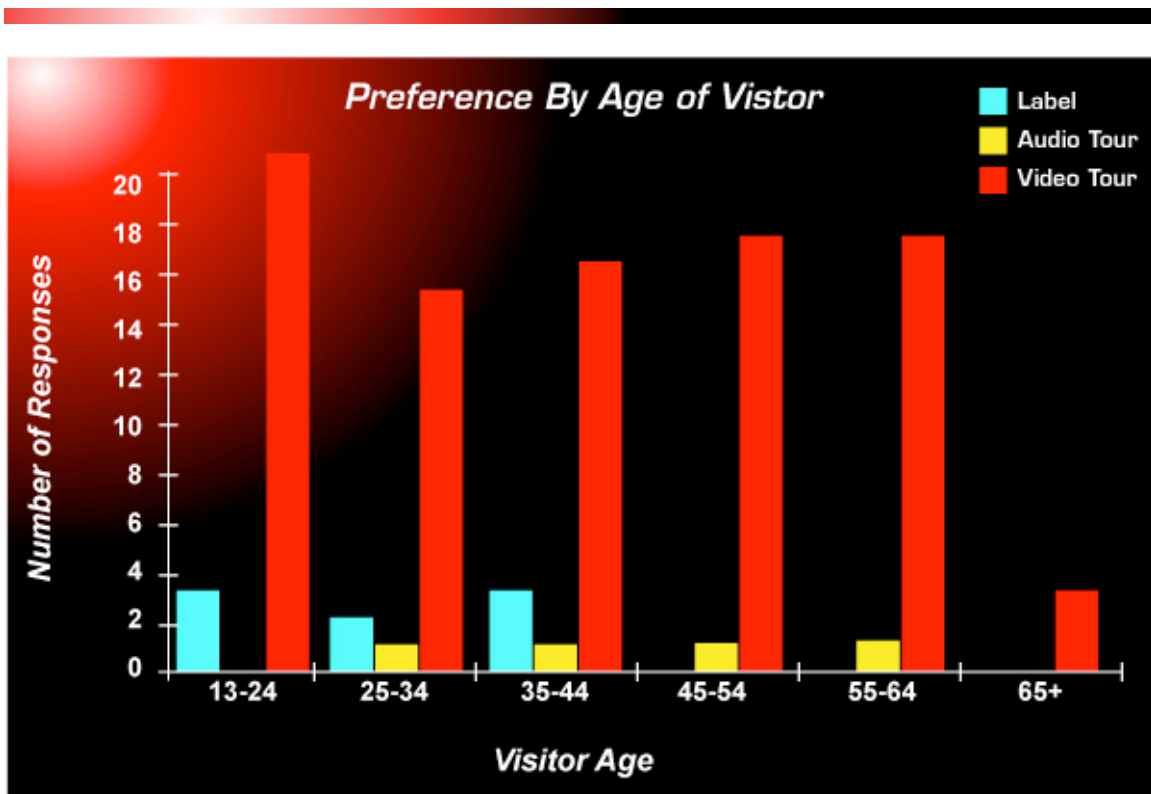
2) Media-rich devices distract visitors who have come to an institution to experience a personal interaction with an artifact or a primary source. Traditional labeling or audio-only programs will not diminish the value of the artifact.

3) A third possibility is that both assumptions are correct, depending on individual visitors. Audience determinants may be age, interest, and/or personal experience.

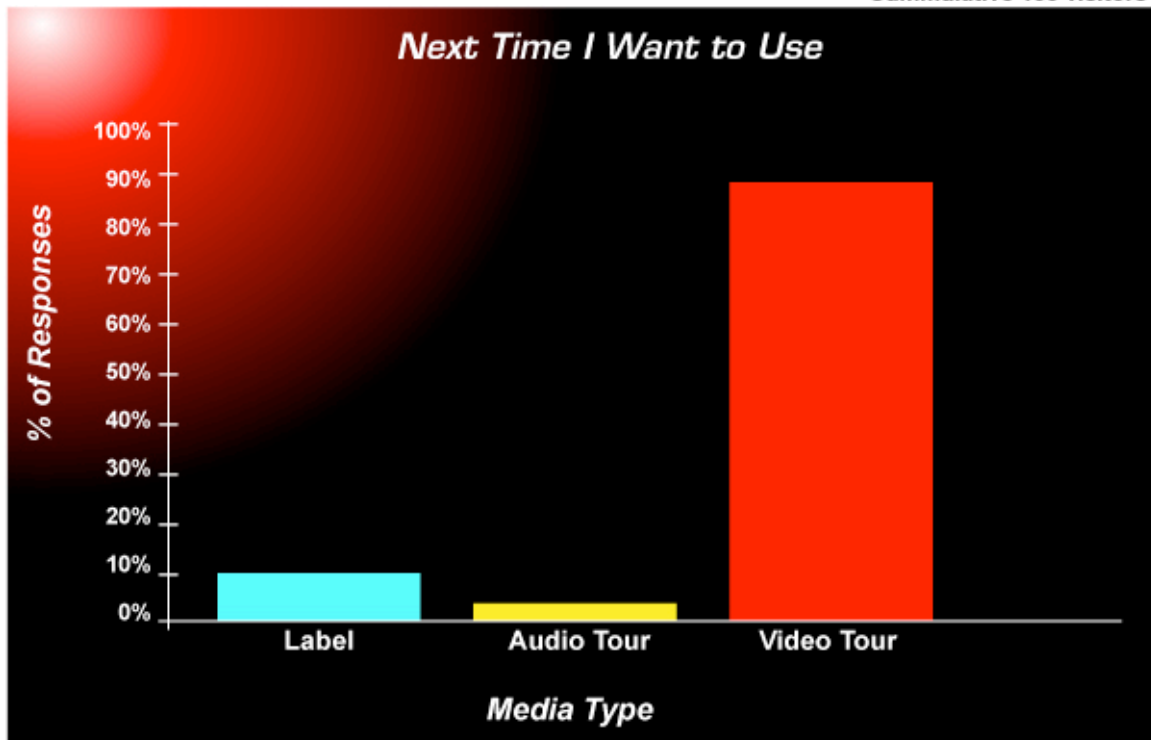
Through random visitor selection and evaluation at CMNH, the goal of the pilot study was to understand the viability of handheld personal video devices to enhance the visitor experience and to add relevance to artifacts, exhibits, and processes.



Cummulative 100 visitors



Cummulative 100 visitors



Cummulative 100 visitors



Interpreting the Evaluation

The pilot study produced positive responses toward the use of the video iPod as an interpretive device. The results modified assumptions that had been made about the audience. Most importantly, the study confirmed the basic premise that a video interpretive device enhances the museum or park experience.

Over a two-month period, 104 museum visitors responded to the survey at the Cleveland Museum of Natural History. Museum volunteer docents and a professional interviewer randomly administered the survey. Of the 104 surveys, 100 were considered complete and used in the analysis. Questionnaires were tabulated and interpreted by the Nance School of Business at Cleveland State University.

Participating visitors were instructed to make three stops, in any order, to compare signage, audio, and video. The three stops were 1) an overview of the dinosaur exhibit (Kirtland Hall) prior to entering it; 2) a third-person interpretive description of an Allosaurus artifact on display; and 3) a museum curator sharing a story about a red-tailed hawk on exhibit in an outdoor cage.

Visitors were asked their age group, how they felt about the ease of operating the iPod, and the frequency of their past visits.

While research shows that younger people tend to be iPod owners, age did not appear to be a factor when expressing ease of use or preference to utilize. Fully 89% of the participants thought the video iPod was easy to use and the remaining 11% were spread evenly throughout the age groups. We were also surprised to see the high level of enthusiasm expressed by participants in the 55+ age groups.

From these responses, the study concluded that iPod ownership does not parallel the desire to use one in the museum environment. It may just be that the appeal of iPod-style devices has not reached the more mature market. In this application, the device appeared to have immediate perceived value by all ages even though the manufacturer's marketing effort has been focused on the young.

When asked for their first choice, 88% of the participants would like to see the inclusion of a video iPod tour at the museum. Only 8% preferred the signage or labeling option, and 4% preferred audio enhancement. This would imply that there is little middle ground in learning styles. Most visitors preferred the enhanced video interpretation, while some remain avid label readers, and we conclude that the traditional audio tour seems to be losing general interest.

When selecting a favorite stop, age seemed to be irrelevant. Of the participants, 71% preferred the storytelling video about the live hawk and 22% favored the third-person video interpretation about the Allosaurus. Favorites among all remaining video, audio, and labeling stops were 7%.

While the overview stop did not attract a lot of attention in this study, it should be considered an advance organizer rather than a source of rich content. The value of the overview should be primarily to establish visitor expectations.

By cross-tabulating equipment preference with visitor recommendation, 77% preferred the video iPod and, as a result, would recommend it and the museum to others.

Participants indicated that the added level of interpretation helps them to better comprehend and relate to the exhibits while they are in physical proximity, thus providing a higher level of appreciation. This indication diminishes the concern that electronic media distracts from exhibits.

In Conclusion

The handheld video device represents a change in the infrastructure required to support interpretive media. Museums and other informal learning venues will be expected to provide content that visitors can download from a website onto their own personal device. In the process, content can be positioned to encourage virtual users to make a personal visit.

This pilot study revealed (as did the Ipsos study, mentioned in the *Numbers* section of this report) that visitors are quick to embrace the value of anytime, anywhere interpretive content. Regardless of age, most participants expect concentrated information that they can process in their own way.

The video iPod is a transitional device that will advance future technologies. This study illustrated the adaptability of the sample audience to welcome the value of technology that is small in size yet large in its capabilities. The video iPod is a cost-effective and powerful way to enhance the visitor experience.