

Finding Information

Factors that improve online experiences

July 2008

Institute for Dynamic Educational Advancement (IDEA)



Executive summary

This report outlines key findings from surveys that explored factors that drive online experience as expressed by the three different subject groups – nonprofit organizations and cities, web designers and firms, and the general public. The survey's major findings are:

- **Designers underestimate the thresholds for an effective site.** Respondents consider a site “effective” when visitors are satisfied with respect to enjoyment, can find information somewhat easily, and never get lost in the site. By at least one point on a five-point scale, visitors have higher expectations for effectiveness than do designers. Nonprofit organizations believe that effective sites do not have “information gaps between what visitors want and what the site provides” and that visitors are at least “somewhat satisfied” with their sites. *Designers should give greater consideration to overall effectiveness, thereby reducing the chance of failure for a user to find the information they seek.*
- **Easy access to complete information is key to visitor enjoyment.** All three survey groups believe that the ease with which visitors can find information and the ability to maintain orientation is critical to enjoyment. Both organizations and visitors believe that reducing the gap between what web sites provide and what visitors seek is critical to enjoyment. These variables explain 25% to 30% of the variance in visitor enjoyment; hence, ease of finding information is an important foundation for most sites.
- **Good visual design and up-to-date information are critical.** Over 80% of designers and organizations believe that good visual design is important. A healthy 50% of the visitors agree. Fully 80% of visitors and organizations believe that up-to-date information is very important. Only 60% of designers believe that to be the case. *When budgeting for your project, don't be overly seduced by fancy graphics and multimedia. Invest in strong, clear design and simple methods to quickly deliver current information to your visitors.*
- **Visitors want information fast.** Web site visitors are looking for simple, accurate, fast, and easy to navigate web sites - preferably with links to information they seek. A significant number of comments revolved around the need for speedy access, including but not limited to download speed, in order to find the information visitors are looking for. *Even in a broadband age, visitors value fast sites, both those that are fast loading and those that quickly deliver sought-after information.*
- **Visitors want a broad range of topics.** Relative to designers and organizations, visitors more strongly believe that a broad range of topics is important. Visitors believe sites can be more effective by helping visitors find interesting information - even if they are not looking for it. *Designers and content developers can provide ample sidebars that link to other recommended pages, and extensively cross-link to other pages based on keywords.*
- **Designers are overly optimistic about visitors' ability to maintain orientation.** In the survey, the ability to maintain orientation was defined as visitors' ability to know “where they are, where they can go next, and which pages are related.” About 70% of designers believe that visitors are almost always able to maintain orientation. That drops to about 30% when non-profit organizations express their view. In contrast, only about 10% of visitors report being able to almost always maintain their orientation. Fewer than 5% report that they tend to get lost frequently. *Said another way, your visitors don't know your site as well as you do, so make sure it is obvious how to find information through meaningful menus, prompts, and not too much clutter.*
- **Visitors still need handholding.** The study asked about hypothetically providing visitors with personal assistance using a site. About 70% of organizations and visitors believe that

a personal guide would increase the effectiveness of a web site. Only about 50% of designers believe the same. *Designers tend to overestimate the clarity of their designs.*

- **Visitors point to the lack of breadth and depth of site content as causing an “Information Gap.”** Although over 90% of visitors say that they are able to find the information they are looking for, over 50% report that there is a gap between what they are looking for and what typical web sites provide, and 60% think that a personal guide would help them navigate web sites. The reported gap is negatively correlated to visitors’ ability to find information, and positively correlated to the need for a local search engine. This indicates that most web sites are unable to provide the breadth of information that visitors seek. *Visitors often request broader and deeper information, when in fact they need to find existing information more easily.*

Introduction

The Institute for Dynamic Educational Advancement (IDEA), a nonprofit organization working to improve the ways people interact with technology, conducted a study using three complementary surveys to determine how people find information online and how the experience of web site visitors can be improved. In order to understand the differences between the actual and perceived needs of end users, the three surveys focused on three different groups of subjects – nonprofit organizations, web designers, and general public (visitors).

The survey questions were designed to answer the following questions:

- What makes a web site effective?
- What factors contribute to visitors’ enjoyment of a web site? Does this vary by segments within each population?
- From a visitor’s perspective, what factors determine a quality web site?

- Are there differences between visitors’ needs as perceived by organizations and designers, and those reported by visitors themselves?

This is the first survey that IDEA has conducted to gather information about online design and visitors’ experiences. The goal was to gain a broad understanding of visitor experience, and hence was not designed to explore any subject in detail. Future surveys may expand questions to refine this survey’s findings and to explore new concepts. The survey instruments are provided in the appendix. We welcome your feedback on this study via email to study2008@idea.org.

Methodology

All three surveys had identical or similar questions regarding online experiences, which were used for comparative analysis. *Table 1* provides characteristics of the three subject pools. Invitations were sent to respondents worldwide, including non-native English speakers, via email. An unknown number of invitations were lost by email filters.

Two incentives were provided to organizations and web designers to encourage their participation in the survey. First, IDEA pledged to contribute US\$1 to One Laptop Per Child (OLPC) for each survey completed. Second, respondents were offered a summary of the study results if they provided IDEA with their email addresses. IDEA contributed US\$813 to OLPC.

In order to measure the index of effectiveness, a regression analysis was performed to identify key drivers. Cluster analysis was then performed to create groups of high/medium/low complexity and effectiveness. Further, several cross-tabulations were developed to identify the impact of site type, number of pages, number of visitors, number of visits, and so forth, for a variety of survey questions. Logistic and multiple linear regression models were used to identify relationships between questions regarding ability to find information and the presence or absence of an information gap.

During data cleansing, all records that were grossly incomplete were discarded (e.g., abusive records with the value “1” for every field and responses with less than 25% of the questions completed). Further, selected incomplete records were automatically rejected during statistical analysis. The number of records eliminated varied depending upon the type of statistical analysis and variables involved.

This study was designed and implemented by IDEA staff, led by Michael Douma. Primary data analysis and report writing was performed by Sathish Menon of *Analytic Dimension*, San Diego, California.

Measuring effectiveness

Based on the responses from visitors, effectiveness was measured relative to visitor enjoyment, ease of finding information, and ability to maintain orientation on the site (ability to maintain

orientation was defined on the survey as visitors’ ability to know “where they are, where they can go next, and which pages are related”). An ineffective site is one where visitors are at best somewhat unsatisfied with respect to enjoyment, where it is not very easy (or worse) to find information, and where visitors occasionally (or worse) get “lost” on the site. An effective site is one where visitors are at least satisfied with respect to enjoyment, can find information at least somewhat easily, and never get lost on the site.

Based on the responses from designers, the effectiveness of a site was estimated using their perception of ease with which visitors can find information on the site, maintain orientation, and enjoy the visiting the site. An ineffective site is one where visitors cannot find information very easily, visitor enjoyment is at best neutral, and visitors are rarely able to maintain orientation on the web site. This is in line with the visitor expectations outlined in the paragraph above. With effective sites, according to designers, visitors can find information very easily or somewhat easily, visitor enjoyment is at least neutral, and visitors are able to maintain orientation almost always or most of the time. By at least one point on a five-point scale, visitors have higher expectations of effectiveness than designers. This suggests that designers should give greater consideration to overall effectiveness, thereby reducing the chance of failure for a user to find the information they seek.

Table 1. Respondent pools

Group	Description	Invitation method	Invited / clean responses
Nonprofit organizations & cities	Executives and communications directors from educational organizations, museums, and associations; usability experts; city webmasters.	Email invitations and discussion list posts	5200 / 563
Web designers & firms	Solo web designers and principals in design firms.	Email invitations	4058 / 250
General public	Visitors to WebExhibits museum exhibit on “Daylight Saving Time”	Unobtrusive text link on web site	Approx 1 million / 1675

Using responses from organizations, an effective web site was defined using visitor enjoyment, influence of personal navigational aids, and the perceived gap between the information provided by the web site and what visitor wants. An effective site is one where organizations believe that gaps do not really exist, visitors are at least “somewhat satisfied,” and organizations express skepticism about improving visitor experience if a “personal navigation aid” is present. An ineffective site is where organizations admit that some gaps exist, visitors are at best neutral with respect to enjoying the site, and organizations are somewhat certain that a personal navigation aid would improve visitor experience.

It is interesting to note that the information gap surfaced as a critical factor for organizations but not for visitors. One possible explanation is that the general public views the entire World Wide Web as the information source rather than a particular web site. Hence, if sought-after information is not available from a particular web site, visitors will move on to the next one. This is consistent with the Pew Internet survey that searchers usually end up satisfied and that people tended to use two or three information sources in their quests.

Factors that drive visitors' enjoyment

According to organizations, ease with which visitors can find information and orient themselves on the web site (i.e., know where they are, where they can go next, and which pages are related) is positively correlated to visitors' enjoyment. Also, non-profit organizations that believe a gap exists between the content of their site and visitors' expectations think that their sites are difficult to navigate, that it is not easy to find information, and that visitors dislike using the web site.

Designers believe the ability to maintain orientation on a web site, good visual design, and the ease with which visitors can find information significantly impacts whether or not visitors enjoy a particular web site.

According to visitors, key contributing factors to enjoyment are the ease with which they can find

information, the ability to maintain orientation, and, to a lesser extent, reducing the gap between what they expect and what sites provide.

Thus, all three survey groups believe that the ease with which visitors can find information and the ability to maintain orientation is critical to enjoyment. Both organizations and visitors believe that reducing the gap between what web sites provide and what visitors seek is critical to enjoyment. Although good visual design is not a key driver of enjoyment for visitors, more than 50% of visitors think that good visual design is a “very important” part of web design. (About 90% of visitors believe that good visual design is “somewhat important.”) One possible explanation is that visitors expect good visual design from all web sites, so it is not a differentiating factor but, rather, an essential factor.

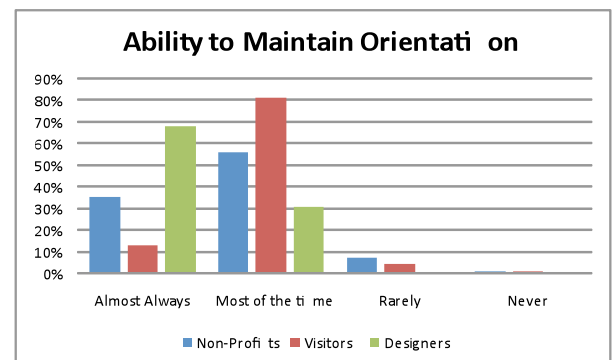
Since these variables explain only 25% to 30% of the variance in visitor enjoyment, additional factors need to be considered during site design.

Summary of findings

Important elements of web site design

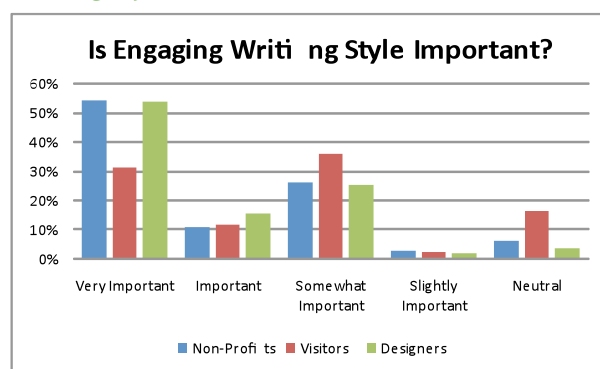
Each of the three surveys incorporated several questions regarding important elements of web site design, ability to find information, the presence of an information gap, and how to make sites more effective. A summary of findings is provided below.

Designers too optimistic about visitors' ability to maintain orientation



The ability to maintain orientation on a web site was defined in the survey as visitors' ability to know "where they are, where they can go next, and which pages are related." The majority (about 70%) of designers believe that visitors are almost always able to maintain orientation. That drops to about 30% when organizations express their views. In contrast, only about 10% of visitors report being able to almost always maintain their orientation. Fewer than 5% report that they tend to get lost frequently.

Writing style not vital to visitors



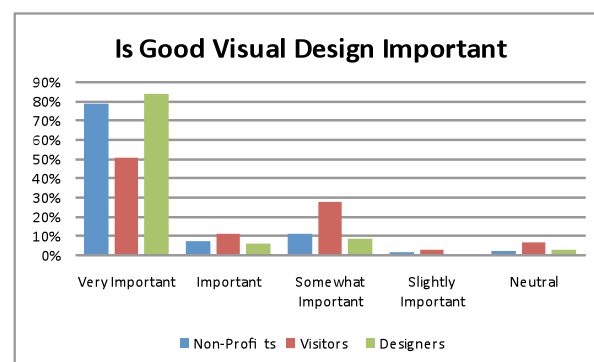
Over 50% of designers and organizations believe that an engaging writing style is very important. However, only about 30% of the visitors believe the same. This could be because designers and organizations place a greater value on quality writing than does the public. However, visitors appear to have low tolerance for spelling and grammatical errors. Among the designers, those who spend most of their week on web design think that an engaging writing style is important, perhaps because they are more immersed in the overall process of visitor satisfaction on an aesthetic and communication level, as opposed to thinking more about technical functionality.

Visitors want information fast

While designers focus on complex functionality and organizations focus on good visual design, web site visitors are looking for simple, accurate, fast, and easily navigable web sites, preferably with links to information they seek. A significant number of comments revolved around the need for speedy access, including but not limited to

download speed, in order to find the information visitors are looking for. Only a handful of designers and organizations mentioned speed of access (including download speed) as a critical element of site design. Since the importance of speed of access was not a question on the survey, the results were gathered from information typed in the comment field by the respondents. Even in a broadband age, visitors value fast sites, both those that are fast loading and those that quickly deliver sought-after information.

Good visual design and up-to-date information extremely important

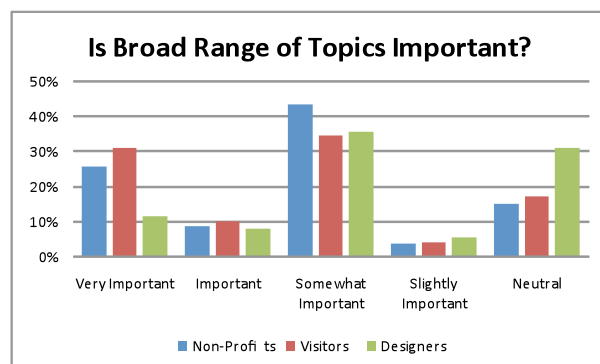


Over 80% of designers and organizations believe that good visual design is important. A healthy 50% of the visitors agree. Visitors also commented that they prefer designs that are easy to read, quick to download, and clutter-free. There was no observable difference in opinion by site type. Visual design matters, but it is not as important to visitors as organizations and designers think. Organizations whose web sites had fewer pages believe that good visual design is more important. Likewise, designers who design fewer pages tend to believe visual design is more important, probably because small/boutique sites focus more heavily on design. Organizations with fewer visitors believe that good visual design is important, perhaps because they consider the site more personal, as opposed to large sites with separate communications staff who focus on content over presentation.

Fully 80% of visitors and organizations believe that up-to-date information is very important. Only 60% of the designers believe that to be the case.

Compared to other designers, designers of social networking sites are more likely to consider up-to-date information important. This finding makes the case for emphasizing strong, clear design and simple methods to quickly deliver current information to visitors.

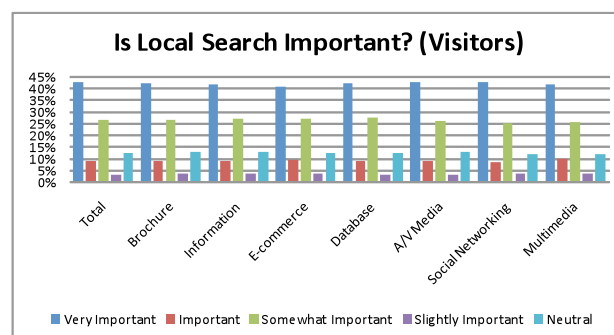
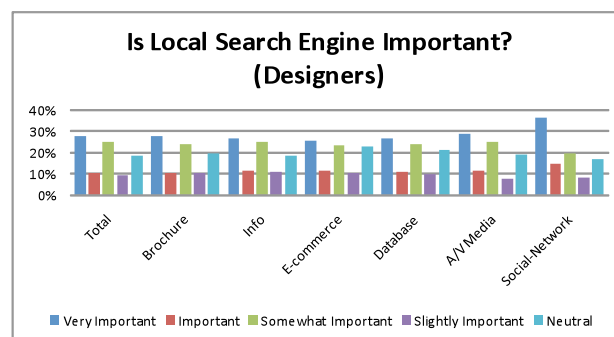
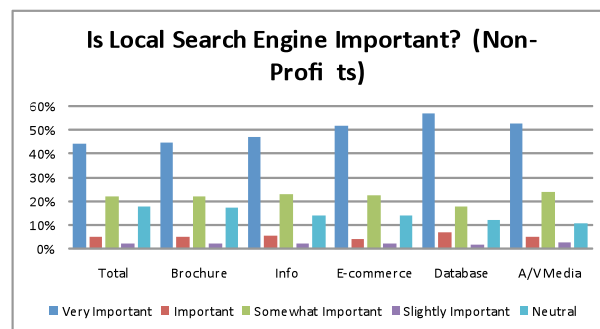
Broad range of topics important to visitors



Relative to designers and organizations, visitors more strongly believe that a broad range of topics is important. Compared to visitors, designers in particular underplay this factor. Organizations with large numbers of visitors believe in the importance of a broad range of topics, probably to cater to the diverse tastes of and to provide more content for their visitors. Designers and content developers can address this issue by providing ample sidebars that link to other recommended pages, and extensively cross-linking to other pages based on keywords.

Local search engines improves visitor experience

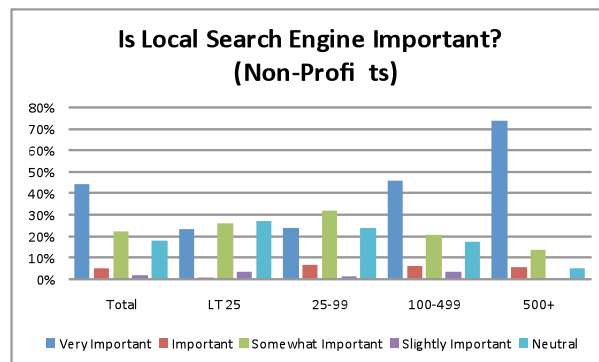
The following charts depict the importance of local search engine by the type of transaction on the web site (e.g. company brochure, product information, e-commerce, database based information, audio-video etc.).



Organizations believe the need for a local search engine increases as the complexity of the web site increases. (Based on cluster analysis, a complex site was defined as a site with more than 100 pages, more than 3 types of transactions, more than 1,000 visitors per day and where designers feel challenged in organizing large volumes of data.) About 40% of both organizations and visitors believe that a local search engine is important, while fewer than 30% of the designers (except for social networking designers at 40%) believe that a local search engine is important. This could be because designers think the navigation is clear, and that a search box can conflict with their aesthetic

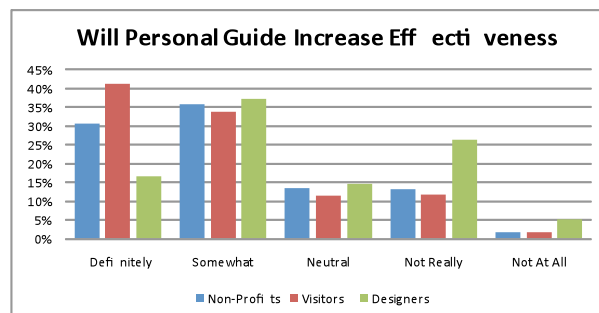
design. Although the need for local search engines and site maps do not statistically correlate to the enjoyment of web site, the fact that the ability to maintain orientation and find information on the web site is critical to enjoyment leads one to believe that these tools eventually drive visitor enjoyment.

Sites with large number of visitors favor local search engines



Organizations that have a large number of web site visitors also believe that a local search engine is important. This can be expected, since a search engine is most helpful when traditional navigation fails because there are so many pages that users cannot realistically browse their way through a web site.

'Personal Guide' widely expected to improve effectiveness of a web site



About 70% of organizations and visitors believe that a personal guide would increase the effectiveness of a web site. Only about 50% of designers believe the same. The disparity in opinion is even sharper when we look at the percentages that "definitely believe" in improvement (30% for organizations and 15% for

designers). This could be because designers are more removed from the end users, and overestimate the clarity of their work. Designers also believe visitors are very satisfied with respect to enjoyment more often than do organizations and visitors. Designers of large sites do not believe in personal guides, perhaps due to additional navigational aids like local search engines. There could also be a degree of skepticism about how much a human being could help navigation on a complex web site.

Visitors unwilling to sacrifice quality for "access to low-literacy readers"

About 30% of the respondents from all three surveys think access to visitors with disabilities is an important aspect of site design. However, most respondents do not think access to low literacy is important. Some of the visitors expressed concern that the contents of a web site run the risk of being "dumbed down" if such aspects are considered during design.

Visitors point to the lack of breadth and depth of site content as a cause of an "Information Gap"

Although over 90% of visitors say that they are able to find the information they are looking for, over 50% report that there is a gap between what they are looking for and what typical web sites provide, and 60% think that a personal guide to help navigate web sites would help. The reported gap is negatively correlated to visitors' ability to find information, and positively correlated to the need for a local search engine. This indicates that most web sites are unable to provide the breadth of information that visitors seek. In other words, they are able to find information provided on the site, but are not able to gather all of the information they need. A personal navigational aid would help clarify whether or not the information they are looking for is present without having to conduct an extensive search. Organizations that have a large number of site visitors believe that they are less capable of serving the diverse needs of visitors. As the number of pages on the site increases, both organizations and designers believe the information

gap increases. Visitors who visit a large number of sites believe that the gap is marginally less compared to those who visit a fewer number of sites. Less frequent visitors to social networking sites more strongly believe in the existence of information gap. This may be because they spend time visiting sites other than social networking sites. Also, designers who spend the bulk of their time on site design are more aware of the information gap.

Visitor sophistication influences their needs and wants

Visitors who visit social networking sites are more apt to value audio and video content on other web sites than visitors who do not. Multimedia usage and the value of a personal navigational aid are negatively correlated, implying that these visitors are comfortable navigating the Web on their own.

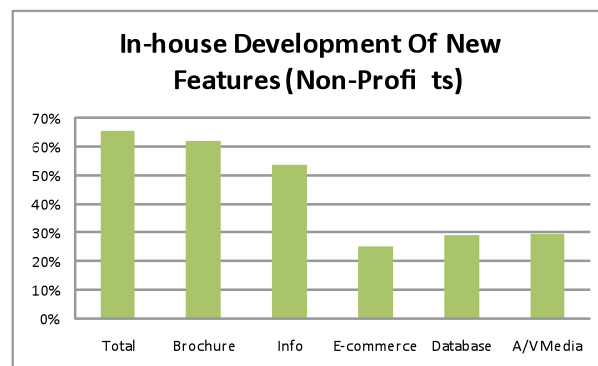
Overall, there are three types of visitors to web sites who have distinct needs: visitors to social networking and multimedia sites, visitors who look for audio/video media, and the remainder of visitors.

Visitors want interesting information

Apart from the key elements for effectiveness discussed earlier in this report, visitors believe sites can be more effective by helping them find interesting information even if they are not looking for it. This could be accomplished by creating links to relevant sites that have complementary information.

Analysis of outsourcing trends

Content development via consultants or outsourcing did not exhibit any pattern in the data set.



The relationship between in-house versus outsourced content development was explored against the type of web site features and method of information organization, but no statistically significant trends were observed. There was weak evidence that non-profit organizations tend to seek outside help more often than any other organizations. When development is not done in-house, it is most likely because they are complex sites that handle e-commerce, database information, or audio/video content.

Enjoyed completing the survey?

Approximately 75% of the developer respondents enjoyed completing the survey. On a relative scale, people who develop sites that handle e-commerce transactions enjoyed the survey, while the others did not. The greater the number of pages designed by a developer, the less he or she liked the survey. Also, respondents who believe that information on design methods would help them with their work also liked completing the survey.

Internet is the key source of information

According to a December 2007 Pew Internet report, more people turn to the Internet than any other source of information and support, including experts, family members, government agencies, or libraries. About 63% are able to find information that they want on the Internet. The report also indicates that broadband users have a significantly different approach to the Internet than dial-up users. Broadband users are more intense and engaged in their Internet experiences. They spend more time online, do many more things online,

and report notably happier outcomes from their online experiences.

Although no questions were asked regarding connectivity speed, responses from visitors to sites designed predominantly for broadband users (like audio/video sites and social networking sites) indicate that they believe less in the effectiveness of a “personal navigation aid,” and complain less about a perceived “information gap.” Clearly, broadband connection provides superior quantity, quality, and accessibility of information to users. This reinforces the importance of “speed of access” during site design.

Conclusion

According to visitors, an effective site is one where visitors are satisfied with respect to enjoyment, can find information somewhat easily, and never get lost on the site. On effective sites, according to designers, visitors can find information very easily or somewhat easily, visitor enjoyment is at least neutral, and visitors are able to maintain orientation almost always or most of the time. Organizations with effective sites believe that information gaps do not really exist and that visitors (enjoyment) are at least “somewhat satisfied.” They do not believe that visitor experience could be improved with the presences of a “personal navigation aid.”

There is a wide gap between the extent to which visitors believe they can maintain orientation and find information on a web site and what designers and organizations believe. The majority of visitors are not confident in their ability to find the information that they need on a particular site; hence, designers and organizations should further emphasize ease of navigation in web site design.

Good visual design and up-to-date information is critical in visitors’ minds. These site elements consistently ranked high in visitor responses, indicating that they are essential (but not differentiating) to improving online experience.

Throughout the survey, designers were optimistic about visitor experience compared to organizations and the general public. For example, visitors have higher expectations, by at least one point on a five-point scale, compared to what designers believe as an effectiveness standard. When asked if a personal navigational aid would help improve the effectiveness of the site, a majority of designers downplayed the effect while visitors overwhelmingly supported the idea. The gap between visitors’ needs and designer perceptions is a serious issue that should be addressed.

Reference

Leigh Estabrook, Evans Witt and Lee Rainie.
“Information searches that solve problems.” *Pew Internet & American Life*, 30 December 2007.
http://www.pewinternet.org/pdfs/Pew_UI_LibrariesReport.pdf

Appendices

These appendices follow.

- A. Survey instrument to executives of nonprofit organizations and webmasters of cities.*
- B. Survey instrument to web designers and firms.*
- C. Survey instrument to the general public.*

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The *Institute for Dynamic Educational Advancement* (IDEA) is a nonprofit organization that takes bold ideas about facilitating and broadening the learning process and transforms them into information systems that are then shared with others who share a passion for interactive learning.

For more information, please contact the *Institute for Dynamic Educational Advancement*, 616 Great Falls Road, Rockville, MD 20850; www.idea.org.

Survey conducted by Michael Douma, Executive Director, *Institute for Dynamic Educational Advancement*, Rockville, MD

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Appendix A

Survey instrument to executives of nonprofit organizations and webmasters of cities.

This survey is sponsored by the Institute for Dynamic Educational Advancement (IDEA), a nonprofit working to improve the ways people interact with technology. We are studying how people find information online and how the experience of web site visitors can be improved.

THE QUESTIONS

This survey should take less than eight minutes to complete. All questions are optional, so please skip any question to which you don't know the answer.

If you are involved in multiple projects, please respond considering your most recent large project. Your personal information will be held in strict confidence, never to be shared with a third party. Your responses will only be reported as aggregate data, not as individual responses. If you supply your email at the end, we will send you a copy of the study results, so you can see how your answers compare to those from other respondents.

TAKE THE SURVEY AND HELP A CHILD

IDEA has a passion for using information systems to facilitate interactive learning, and supports the mission of One Laptop per Child, an organization that has developed low-cost, innovative laptops to help educate children in emerging nations. We will donate one dollar to OLPC for every completed survey we receive, and hope that the survey responses will enable us to sponsor several laptops for kids.

1. What does your organization's web site do? (Check all that apply) —

- Provides information about your organization (i.e., it's an electronic brochure)
- Provides information to visitors, such as resources or articles
- Handles orders and/or ecommerce transactions
- Provides access to a database so users can look up information (e.g., paintings, course information, campaign contributions, other data)
- Provides media, such as videos or audio
- None of the above

2. Overall, how easily can visitors find information on your site? — *Very easily; Somewhat easily; Not very easily; Not easily at all; Don't know*

3. Do you think visitors enjoy using your site? — *Yes - Very pleased and delighted; Yes - Very satisfied; Yes - Somewhat satisfied; Neutral; No - Mildly bothered; No - Somewhat unsatisfied; No - Really annoyed; No - Extremely infuriated; Don't know*

4. From a typical web page, do you think visitors usually know where they are, where they can go next, and which pages are related? — *Almost always; Most of the time (visitors usually figure it out); Rarely (visitors frequently get lost); Almost never (visitors often get lost); Don't know*

5. In your opinion, how important are the following elements when designing a web site similar to yours?

CONTENT:

a. Engaging writing style — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*

b. Good visual design — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*

c. Up-to-date information or postings — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*

d. Broad range of topics and levels of detail — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*

e. Interactive or personalized content — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*

f. Multimedia, videos or audio — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*

ACCESSIBILITY:

g. A site map — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*

h. A local search engine — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*

i. Accessibility for non-English speakers — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*

j. Access for disabled users — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*

k. Access for low-literacy readers — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*

l. Printable versions of content — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*

m. Other (specify) — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*

6. Hypothetically speaking, if you could act as a personal guide to your visitors in order to give them advice,

recommendations, or to orient them to the web pages they need, would it increase the effectiveness of your web site? — *Definitely; Somewhat; Neutral; Not really; Not at all; Don't know*

7. Do you feel that there is a gap between what visitors realistically want to learn about a topic and the information that your site provides? — *Definitely; Somewhat; Neutral; Not really; Not at all; Don't know*

8. When your organization adds new features to your website, do you usually...? — *Create them yourself (in-house or IT department); Buy them from a software vendor (off-the-shelf); Hire a local consulting firm; Outsource to other programmers; We rarely add new features; Other*

9. Approximately how many visitors does your website get per day? — *Less than 100; 100 - 1,000; 1,000 - 10,000; 10,000 - 100,000; 100,000 - 1 million; 1 million - 10 million; Over 10 million; Don't know*

10. Approximately how many pages does your website contain? — *Less than 25 pages; 25-99 pages; 100-499 pages; Over 500 pages; Don't know*

The following questions relate to your professional responsibilities.

11. How would you describe what you do? (Check all major responsibilities) — *Artist (visual, music, multimedia); Communications or public outreach; Design or art direction; Education; Fundraising or development; Information Technology (IT); Management or executive; Marketing or sales; Professional; Programming (Flash); Programming (not Flash); Research; Retired; Student; User interface or accessibility; Web design or webmaster; Writer or editor; Other*

12. For what kind of organization do you work? — *Non-profit organization; Government agency; City, town, state government; School, college, university; For-profit company; Design, web, or IA agency/consultancy; Self-employed/freelance; Other*

13. Which best describes your organization's field or mission? — *Arts/culture/humanities; Education; Environment and Animals; Health; Human Services / Social services; International; Municipality / City or Town; Sports; Science; Community development; Politics; Religion; Other*

14. Was this survey interesting? — *Yes; No*

Appendix B

Survey instrument to web designers and firms.

This survey is sponsored by the Institute for Dynamic Educational Advancement (IDEA), a nonprofit working to improve the ways people interact with technology. We are studying how people find information online and how the experience of web site visitors can be improved.

THE QUESTIONS

This survey should take less than eight minutes to complete. All questions are optional, so please skip any question to which you don't know the answer.

If you are involved in multiple projects, please respond considering your work over the past three months. Your personal information will be held in strict confidence, never to be shared with a third party. Your responses will only be reported as aggregate data, not as individual responses. If you supply your email at the end, we will send you a copy of the study results, so you can see how your answers compare to those from other respondents.

TAKE THE SURVEY AND HELP A CHILD

IDEA has a passion for using information systems to facilitate interactive learning, and supports the mission of One Laptop per Child, an organization that has developed low-cost, innovative laptops to help educate children in emerging nations. We will donate one dollar to OLPC for every completed survey we receive, and hope that the survey responses will enable us to sponsor several laptops for kids.

1. What are the functions of the web sites you design? (Check all that apply)

- *Provide information about an organization or business (i.e., it's an electronic brochure)*
- *Provide information to visitors, such as resources or articles*
- *Handle orders and/or ecommerce transactions*
- *Provide access to a database so users can look up information (e.g. paintings, course information, campaign contributions, other data)*
- *Provide media, such as videos or audio*
- *Provide social networking features or widgets*

2. Overall, how easily can visitors find information on the sites you design? — *Very easily; Somewhat easily; Not very easily; Not easily at all; Don't know*

3. Do you think visitors enjoy using the sites you design? — *Yes - Very pleased and delighted; Yes - Very satisfied; Yes - Somewhat satisfied; Neutral; No - Mildly bothered; No - Somewhat unsatisfied; No - Really annoyed; No - Extremely infuriated; Don't know*

4. From a typical web page that you design, do you think visitors usually know where they are, where they can go next, and which pages are related? — *Almost always; Most of the time (visitors usually figure it out); Rarely (visitors frequently get lost); Almost never (visitors often get lost); Don't know*

5. In your opinion, how important are the following elements when designing a web site similar to yours?

CONTENT:

a. Engaging writing style — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*

b. Good visual design — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*

c. Up-to-date information or postings — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*

d. Broad range of topics and levels of detail — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*

e. Interactive or personalized content — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*

f. Multimedia, videos or audio — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*

g. Social networking or community features — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*

ACCESSIBILITY:

h. A site map — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*

i. A local search engine — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*

j. Accessibility for non-English speakers — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*

k. Access for disabled users — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*

l. Access for low-literacy readers — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*

m. Printable versions of content — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*

n. Other (specify) — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*

6. Hypothetically speaking, if you could act as a personal guide to site visitors in order to give them advice, recommendations, or to orient them to the web pages they need, would it increase the effectiveness of your web sites? — *Definitely; Somewhat; Neutral; Not really; Not at all; Don't know*

7. Do you feel there is a gap between what visitors realistically want to learn about a topic and the information that most web sites provide? — *Definitely; Somewhat; Neutral; Not really; Not at all; Don't know*

8. What is the average number of pages for a web site you design? — *Less than 25 pages; 25-99 pages; 100-499 pages; Over 500 pages; Don't know*

9. Which of the following challenges do you face in web site design? (Check all that apply) — *Offering an interactive experience; Offering intuitive navigation; Organizing large volumes of information; Helping visitors find information they are looking for; Helping visitors find information they may not know exists; Finding new technologies to improve the appearance of web sites; Finding new technologies to improve the functionality of web sites*

10. Information on which of the following topics would help you in your work? (Check all that apply) — *User interface principles and guidelines; Design methods; Organizing large volumes of information; Information visualization; Techniques and tools; Case studies in design*

The following questions relate to your professional responsibilities.

11. How would you describe what you do? (Check all major responsibilities) — *3D modeling; Artist (visual, music, multimedia); Accessibility expert/consultant; CMS developer; Creative director/Art director; CSS coding; Design management; Environmental graphics; Game design; Illustrator; Image editing/production; Information architecture; Information Technology (IT); Interaction design; Management or executive; Mapping developer; Markup (HTML, XHTML); Motion graphics; Packaging design; Programming (Flash); Programming (not Flash); Research / Faculty; Student; User interface or accessibility; Web design or webmaster; Writer or editor; Other*

12. For what kind of organization do you work? — *Non-profit organization; Government agency; City, town, state government; School, college, university; For-profit company; Design, web, or IA agency/consultancy; Self-employed/freelance; Other*

13. How much of your work revolves around some element of web design? — *80%-100% (Full time); 50%-80% (Most of a week); 20%-50% (Part of a week); Less than 20% (Just a few hours)*

14. Was this survey interesting? — *Yes; No*

Appendix C

Survey instrument to the general public. Linked from IDEA's "Daylight Saving Time" exhibit.

This survey is sponsored by the Institute for Dynamic Educational Advancement (IDEA), a nonprofit working to improve the ways people interact with technology. The Daylight Saving Time WebExhibit is one of IDEA's ongoing projects. We are also studying how people find information online and how the experience of web site visitors can be improved.

THE QUESTIONS

This survey should take less than eight minutes to complete. All questions are optional, so please skip any question that you don't wish to answer.

Any personal information you provide will be held in strict confidence, never to be shared with a third party. Your responses will only be reported as aggregate data, not as individual responses. If you supply your email at the end, we will send you a copy of the study results, so you can see how your answers compare to those from other respondents.

1. Over the past month, what types of web sites have you visited? (Check all that apply)

- *Those that provide information about an organization or business (i.e., an electronic brochure)*
- *Those that provide information such as resources or articles*
- *Those that handle orders and/or ecommerce transactions*
- *Those that provide access to a database so you can look up information (e.g. paintings, course information, campaign contributions, other data)*
- *Those that provide media, such as videos or audio*

- *Social networking sites, like FaceBook or MySpace*
- *Multimedia sites, like YouTube*
- *None of the above*

For these next questions, please think about web sites you have visited in the past month that provide information (rather than, for example, shopping web sites or social networking sites).

2. How easily can you find information on the sites you visit? — *Very easily; Somewhat easily; Not very easily; Not easily at all; Don't know*

3. Generally speaking, do you enjoy using the sites you visit? — *Yes - Very pleased and delighted; Yes - Very satisfied; Yes - Somewhat satisfied; Neutral; No - Mildly bothered; No - Somewhat unsatisfied; No - Really annoyed; No - Extremely infuriated; Don't know*

4. When you visit a typical web page, do you usually know where you are, where you can go next, and which pages are related? — *Almost always; Most of the time (visitors usually figure it out); Rarely (visitors frequently get lost); Almost never (visitors often get lost); Don't know*

5. In your opinion, how important are the following elements of a web site?

CONTENT:

a. Engaging writing style — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*

b. Good visual design — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*

c. Up-to-date information or postings — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*

d. Broad range of topics and levels of detail — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*

e. Interactive or personalized content — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*

f. Multimedia, videos or audio — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*

g. Social networking or community features — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*

ACCESSIBILITY:

- h. A site map — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*
- i. A local search engine — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*
- j. Accessibility for non-English speakers — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*
- k. Access for disabled users — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*
- l. Access for low-literacy readers — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*
- m. Printable versions of content — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*
- n. Other (specify) — *Very important; Somewhat important; Neutral; Somewhat unimportant; Not important at all; Don't know*
6. Hypothetically speaking, if the people who designed the web sites you visit could act as your personal guide and give you advice, recommendations, or to direct you to the web pages you need, would it be helpful? — *Definitely; Somewhat; Neutral; Not really; Not at all; Don't know*
7. Do you feel there is a gap between what you want to learn about a topic and the information that most web sites provide? — *Definitely; Somewhat; Neutral; Not really; Not at all; Don't know*
8. Please estimate the number of web sites you have visited during the past month. — *Less than 25; 25-99; 100-499; Over 500; Don't know*
9. On average, how often do you visit social networking sites like FaceBook and MySpace? — *More than once a day; Once a day; Several times each week; Once a week; Once every two weeks; Once a month; Rarely; Never*
10. Generally speaking, in what ways could the web sites you regularly visit be more effective? (Check all that apply) — *By offering an interactive experience; By offering intuitive navigation; By doing a better job in organizing large volumes of information; By helping me find information I am looking for; By helping me find interesting information, even when I'm not*

looking for it; By improving their appearance; By improving their functionality

The following questions are purely informational, and your answers will be held in the strictest confidence.

11. Are you... — *Employed part-time; Employed full-time; Self-employed; Unemployed; Student; Homemaker; Other*
12. If you're employed, for what kind of organization do you work? — *Non-profit organization; Government agency; City, town, state government; School, college, university; For-profit company; Design, web, or IA agency/consultancy; Self-employed/freelance; Other*
13. Was this survey interesting? — *Yes; No*