Utah State University

DigitalCommons@USU

Undergraduate Honors Capstone Projects

Honors Program

5-2006

Genres, Media, and Usability in the Evaluation of Writing Quality in **Digital Environments**

Lisa Ferrara Utah State University

Follow this and additional works at: https://digitalcommons.usu.edu/honors



Part of the English Language and Literature Commons

Recommended Citation

Ferrara, Lisa, "Genres, Media, and Usability in the Evaluation of Writing Quality in Digital Environments" (2006). Undergraduate Honors Capstone Projects. 740.

https://digitalcommons.usu.edu/honors/740

This Thesis is brought to you for free and open access by the Honors Program at DigitalCommons@USU. It has been accepted for inclusion in Undergraduate Honors Capstone Projects by an authorized administrator of DigitalCommons@USU. For more information, please contact digitalcommons@usu.edu.



GENRES, MEDIA, AND USABILITY IN THE EVALUATION OF WRITING QUALITY IN DIGITAL ENVIRONMENTS

by

Lisa Ferrara

Thesis submitted in partial fulfillment of the requirements for the degree

of

DEPARTMENTAL HONORS

in

English

Approved:	
Thesis/Project Advisor	Department Honors Advisor
(Dr. David Hailey)	(Dr. Brock Dethier)
Committee Member	Honors Program Director
(Dr. Cheryl Ball)	(Dr. Christie Fox)

UTAH STATE UNIVERSITY Logan, UT

GENRES, MEDIA, AND USABILITY IN THE EVALUATION OF WRITING QUALITY IN DIGITAL ENVIRONMENTS

INTRODUCTION

The Society for Technical Communication (STC) has recognized that there may be a problem with depending too much on usability studies for identifying some weaknesses in digital media. In their effort to find a substitute, they have funded more than \$250,000 in research in the past two years.

Like the STC, I now have doubts that usability studies supply enough information about the strength and weaknesses in digital documents. I ask the question, if a usability study indicates that a document is successful, what does it say about the study if the document is actually not very good? Yet, it is easy to demonstrate that usability studies are often unable to identify weaknesses in writing quality. Might there not be another tool or process that can be applied instead (or in addition)?

For the past ten years David and Christine Hailey have been researching the impact of genres on cognition using instructional materials for college engineering students, comparing traditional and digital instructional methods. Their research concludes, "media choices do not seem to impact learning as long as those choices do not impact genre choices. If media choices require changes in genres, learning quality will be impacted" (Hailey and Hailey, 2003). In other words, if they changed from traditional instructional media to digital instructional media without changing genres (for example a traditional slide show becomes a digital slide show) there was no statistical impact on

learning, but if they changed genres (an instruction set becomes an essay) learning was impacted.

I researched several of Jakob Nielsen and Donald Norman's published materials regarding usability and the quality control that usability testing provides. While working with Dr. Mark Zachry on the original art museum heuristic evaluations, I concluded that neither Nielsen's nor Norman's research explained the inconsistent quality in writing in this website. Although all of the marketing pages would have scored the same usability score, two were badly written, one was only moderately well written, and two were well written. The usability studies were unable to differentiate between their qualities. As this paper moved forward, current arguments centering around usability became less and less credible as product quality control. But as the Haileys' genre research shows, the factor determining quality seems to involve how effectively the writing aligns with appropriate genres and not with how they align with arguments concerning effective usability. I suggest that if choosing the wrong genre impacts quality of learning, it might also impact quality of writing.

I begin the argument for this paper by describing the nature and history of usability studies and what they were originally designed to do: allow users the ability to efficiently and effectively use a product. I then use respected, usability heuristics for examining a specific site, demonstrating that although the heuristics imply the site is well done, the texts have inconsistencies the heuristics were unable to account for. By looking at the work of Carolyn Miller, I showed that genre theory seems to solidify the argument that more than usability is necessary to determine quality. There are several examples from the Museum of Fine Arts, Boston website that are this paper's case study on writing

quality in digital environments. By examining them, I can show that genre theory, rather than usability theory most assists in identifying quality in online writing.

BACKGROUND - NATURE OF USABILITY

Usability is not a new concept, although a specific definition may be hard to pinpoint. A professor at Southern Polytechnic State University, Carol Barnum, in fact, defines usability in *Usability Testing & Research* by describing what it is not (2002).

Professor Mark Zachry of Utah State University describes usability as an

encompassing study in technical communication that has two significant branches (see figure 1): reliability (the product performs as expected) and user preference (what users like about a product) (2005).

Usability, by the very nature of the word, is the act of correctly using a product. 'Correctly using a product' is what the past thirty years of usability testing has focused on. Usability testing is performed

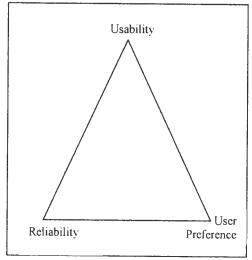


Figure 1: Usability encompasses research and studies dealing with reliability and user preference.

on products as developers, programmers, engineers, designers, etc. are building them.

But products may also be tested for their ability to be used by outsiders, such as

Developers do testing in-house through their company and team of experts. Their products, generally speaking, run well for them. For example, a snow mobile runs smoothly when a designer test drives it because the designer knows the needs of the machine very well and has made sure that it contains the necessary components to run. A user, however, hasn't been involved in the design process of the snowmobile or the policy of the company and has a basic or minimal knowledge of it. The users might not know that the company expects them to buy and add a quart of oil before using the

customers.

machine. The users' success depends on the company's willingness to make the machine as usable as possible. Although most new products require a certain learnability factor, these new processes relating to products should be easy to learn, must be modeled after similar products, and be easy to remember for next time.

Products that we use everyday still require instructions on how to use them.

Donald Norman's famous example of 'one-word user manuals' on doors illustrate this concept. A door is something that most people use at least once a day. The fact that multiple doors still have user manuals on them for operation ('push' and 'pull') suggests that user-centered design is not met in the majority of products. Although the user understands what the end result should be (walking through the door) the doors have low usability because they prohibit successful human interaction.

Usability isn't all about physical outcomes of products and systems. There are levels of emotion that go into using products throughout our daily lives. This is not to say that every table, chair, pen, or street sign must be a Matisse artwork; but these things should not be painful and frustrating to use if they are part of our usual habits.

Donald Norman (discussed later on) describes three levels of emotional satisfaction that users typically experience. Users must feel satisfied in completing a task as well as being able to use a product. This is a valuable concept for marketing purposes and it goes back to the roots of usability studies, involving psychological analysis of users and product. Norman concludes that users experience different stages of satisfaction at the initial appearance or introduction of the product (visceral level), another stage during the use of the product (behavioral level), and finally a reflective stage in which the user has time to reflect at the experience as a whole after completion

of the task or product (reflective level). These emotional aspects of a product are just as important as the tangible outcomes during customer interaction. If a customer or user finishes a task using the product but was frustrated or bored during the experience then their reflective response is negative. If the user is confused at the beginning, finds useful help manuals or customer service while using the product, and feels like something has been accomplished at the end then their overall reflective experience will be much more satisfactory.

Usability studies aren't focused solely on the quantitative results during program or product testing. Usability studies are the combination of a satisfactory and successful experience during and after product use or task completion. These studies are determined to find ways that improve the overall quality of the product's performance and impact on the user.

Analyzing and Reporting

There are basic methods used for reporting usability studies and results. A report generally begins with a user analysis, leading to the creation of user profiles; a task analysis, which leads to task lists; environment analysis, which leads to development constraints; methodology used for data-gathering; and recommendations for further research (Barnum, pg. 102 and Usability Week 2006). The tangible, accomplished items brought back from the usability testing are artifacts or materials analyzed within the rhetorical situation of the study (Foss, pg. 5 and Barnum, pg. 102). These report sections are heavily geared towards industry and website efficiency, thanks to such consulting firms as the Nielsen Norman Group and professional societies such as the Society for

Technical Communication's Special Interest Group on Usability, leaving very little room for creativity.

Origins and History of Usability

Usability began with the study of ergonomics during World War II opening the gateway to user-centered design and human interaction. The human factor breakthrough came about when the U.S. Air Force determined that it would be easier to train pilots if the cockpits and flight control interface were designed around the user rather than the product. Usability began as a solution to efficiency and comfort.

Usability began with information and software design and was epitomized in the military's display units and the U.S. Air Force cockpits. It evolved in the 1970s when user-centered design approached a new level of development and testing around the introduction of mainframe computers.

Human-computer interaction in the 1980s. As Carol Barnum notes in *Usability Testing and Research*, the growing use of home and office computers in the 1980s spurred an interest in human-computer interaction (pg. xiv), which involved several areas of discipline, including graphic design, computer science, psychology, and technical communication. As computers became available to a larger audience, the products and help manuals available needed to be updated and created for the larger, diverse audience whereas computers had previously taken up entire rooms and were run by computer technicians who had familiarity with the product.

Graphic designers were crucial in the emotional design of product interfaces.

Their contribution to the 1980s interaction research was the production and design of

graphical figures that help connect the mental, visual models between users and product developers. Such things as graphical user interface (GUIs) had the ability to allow diverse audiences new levels of interaction with computers. Computer scientists developed and programmed the software to respond to users commands, and when those commands weren't met, help screens were the answer. Those help screens, however, were also created by the developers. Technical communicators were brought in to translate the help and user manuals into comprehensible instructions for general users, eliminating some confusion in the larger human-computer interaction. Psychologists were used to analyze the psychological reaction of users to products and to map the uncertainty between user and designer.

Misconceptions of user interaction. In 1985 and 1986, two research reports were published that focused design methodology on the user, not the technology. Gould and Lewis (1985) described basic user-centered design principles and Norman and Draper (1986) edited a collection of essays in *User Centered System Design*. Gould and Lewis listed several misconceptions they believed designers held regarding user interaction and human factors (Barnum, pg. 3):

Users are similar to designers – There was the assumption that if the design
worked for the designer, it would work just as well for the user. Particularly
in the early UNIX environments, help files contained the professional jargon
of the programmers, leaving the users entangled in a completely alien
language. Products were often designed with regard for neither user
competence levels nor user vocabularies.

- Users don't know what they need Rather than ask the user what design or tools they wanted to see in a product, developers chose which tools and designs were most effective and satisfying for the developers to use. This leads to frustration and miscommunication between the user and the product because a user did not determine which factors were the most helpful or significant in a product. Developers are too removed from the experience of using a product.
- The job does not require or permit interaction with users—Every job has a series of processes that need completed before the job begins or ends. For a user to misunderstand or skip a step may alter the end result in the task or confuse the user on a later task if there is a reference to the previous interactive steps.
- Reason will prevail—If a user has no background of knowledge of a product, reason will never prevail. This is simply because users rely on mental models and schemas that they learned from similar products that they are familiar with, according to Donald Norman. Frustrated users, especially ones that are not familiar with the product's underlying program, will not be able to troubleshoot or know where to begin the learning process for fixing it.
- Design guidelines should be sufficient—This paper is bound to prove that design does not make up for lack of quality writing or instructions on anything, especially websites. Designs can draw a user in to specific points in the procedure, whether that's the beginning or the end. Like a webpage, a company logo and a horizontal navigational bar generally instruct the user to start at the top of the page for menu options. Scrolling down, however, direction gets lost and the user's eye wanders around the screen, still searching for familiarity.

- Good design means getting it right the first time—Engineers and artists alike
 practice a simple lesson in perfection: revamp, revise, and rework. Good
 design isn't by accident; it results from careful design and consideration of
 users and products. This is where usability becomes a beneficial design aid.
 Usability can gain helpful information and suggestions from real-life users,
 allowing product designs to directly benefit real-life customers and address
 real-life concerns.
- The power of technology will triumph—Yes, technology triumphs like the power surge that wipes out an entire university's computer networking system. Or my fridge that twenty-two hours later gets to be cleaned out and restocked. Technology has no power on its own; someone has to be directing or using it to obtain any results.

Gould and Lewis also listed three principles that defined user-centered design and encouraged human-factor engineers and researchers to shift thinking from product usability to user-centered design (Barnum, pg. 7). These principles also encouraged researchers and developers to work together during the development of the product, allowing for alterations and repeated steps as necessary throughout the design process:

- Focus on users and tasks that involve understanding the users, the tasks that users
 perform, and the environment in which users perform these tasks early in the
 design process.
- Implement empirical measurement of product usage that involves users providing information about ease of learning, ease of use, and related usability issues.

• Find an iterative design that fixes the problems found by users in usability testing as part of the product development lifecycle.

Barnum concludes that user-centered design became popular due to specific market necessities and changes within user population (pg. 2-3). Products now have new human-design factors and usability testing procedures. The methodology behind user-centered design is to bring the outside in, that is, bringing an outsider (generally the customer) up to date on the inside (your company or communication method, i.e. website).

With new research areas come opportunities to improve and expand. Barnum (pg. 10) also discusses the change in usability testing in 1989 when human factor engineer Jakob Nielsen presented at a Human-Computer Interaction conference one of several landmark findings that suggest usability studies can be cost-effective for companies of all sizes and that a sample of three to five subjects was sufficient for usability testing. His theory and methods of cost-efficient usability testing has been termed "discount usability."

In short, usability testing that focuses on user-centered design is the most efficient way to gain critical feedback and evaluation of a system. When a product is tested on specific audiences and criteria from the test tasks are drawn from real-life situations, the system and product can be analyzed yielding real results and creating helpful suggestions to improve communication and interaction between a product and its users. These tests work the best, however, when they are based on the users needs and not the developers. The developers are meant to bridge the gap between users needs and the company

providing the services for those needs. The user is the control group and everything else revolves around them.

<u>Users' mental models.</u> Donald Norman, a professor of Computer Science at Northwestern University and cofounder of the Nielsen Norman Group (a consulting firm focusing on human-centered design), explains in his book *Emotional Design* (2004) that the design community, after fifteen years of usability research, understands how to make things work practically and understandably for the user but now that focus should shift to making things pleasurable, that is, making products that connect with people's emotions. He describes in *Psychology of Everyday Things* (1988) that products should encompass several qualities of design that are essential to usability and that problems arise when the design does not match users' mental models:

- Visibility: The internal workings of a system must be somewhat transparent, or visible, to the user on the interface so the user understands what responses are taking place during interaction with the product. Norman declares this principle the most important in design (Norman, 1988, pg 4). "The correct parts must be visible, and they must convey the correct message" (pg. 4). He also warns that while too little visibility can make operation difficult, too much visibility can make a product daunting and intimidating. "Visibility indicates the mapping between intended actions and actual operations" (pg. 8). Visibility is what makes user feedback possible and gives the user confidence to continue using the product.
- Natural Design or Designing for Error: A product should be designed around all
 possible failures (pg. 200). As designers develop a product, they must assume all
 possible user failures and conclusion and design to avoid those unpleasant
 encounters. The design should avoid obvious failures and essentially have a

natural design for success. For example, the emergency shut off button should not be placed next to a similarly shaped, colored, and frequently used button on the nuclear plant switchboard.

- Natural Mapping: Natural mapping is a combination of constraints of an object and responses of an object (1988, pp. 83, 199-200). A user is forced to produce an outcome based on a series of carefully designed constraints eliminating other possibilities. This design process probably requires an understanding of user cognition, an area that may require a professional psychologist. This is illustrated in a bicycle—pedals are by the feet while handlebars are closer to the upper body. Because the pedals move and the handlebars steer, the natural response is to power the bicycle through use of the legs and pedals while steering with the arms.
- Constraints: These are limits placed on a user by the product. For example, my word processor can't boil soup; it has no capabilities to allow it to withstand high heat or liquid. It's not even edible.

There are three levels of emotion that are affected by design. Norman describes three processes that humans experience when interacting with products—visceral, behavioral, and reflective (2004, pg. 36).

<u>Visceral design and natural response.</u> Visceral design reflects the process of human experience where natural responses occur and where physical features are the engaging elements (Norman, 2004, pg. 65-67). As described earlier, visceral design is the initial response to a product. Design elements such as color, shape, and texture are the first pieces of the product that are noticed. An initial response could be disgust at the color choice or impressiveness at the architectural style. These natural responses either

draw the user in or immediately confuse or annoy the user, discouraging interaction with the product.

Behavioral design targets the experience of using and interacting with the product (Norman, 2004, pg. 69). Norman clarifies that it is not the rational or performance qualities but the ability to use and respond to the product (2004, pg. 69). The user's experience during use of a product or system becomes the most important factor in how they feel about the product. If a product is ugly but one can interact with it through high levels of efficiency or satisfaction, then the user will generally accept the product as a satisfying one.

Reflective design is the most encompassing process. There is reflection on culture, quality, design, sophistication, and several other emotional targets (Norman, 2004, pg. 83). Usability, then, would have to encompass all three levels of emotional processing of design to be truly usable. There are many factors that result in the performance of a webpage (or a car, hair dryer, knife, etc.), and qualities such as design, as Norman has explained, cannot be overlooked while building and maintaining a usable product.

Website Usability Factors

Norman's counterpart, Jakob Nielsen, a usability specialist, expanded the usability definition and human studies to encompass five other factors of user-system interface:

• Learnability: The system should be easy to learn and require no extensive training where appropriate. Part of this requires available and comprehensive help instructions for the user throughout the course of the product's use.

- Efficiency: The system should allow the user to efficiently create a high level of productivity. The system, then, should allow for a responsive and reasonable turn-around time regarding user interaction. The user should be able to multitask or finish a task quickly.
- Memorability: The system should be easy to remember in between spaces of
 interaction. This factor is closely related to learnability. If the system is easy to
 learn, then the memorability factor should easily follow. If the system simply
 remembered because of relatively few steps or interactive processes then it also
 becomes efficient in use.
- Errors: The system should have a low error rate or at least easily recoverable errors. People everyday experience errors in a wide range of products, especially computers. If an error is relatively easy to explain and fix with a pop-up message, then that's an easily recoverable error. If the 'x' key on the keyboard is actually linked to a fatal crashing virus on a user's computer, then this error is obviously easy to make because it's mixed in with the rest of letter keys on a keyboard and it is difficult to recover from once pressed.
- Satisfaction: The system should be pleasant to use and create a feeling of
 satisfaction after task accomplishments. This is essentially a repeat of Donald
 Norman's levels of emotional interaction. A user is much more likely to use a
 product well if it is emotionally satisfying or pleasing than if it is frustrating or,
 in essence, unusable.

Barnum finishes the definition of usability by writing "in all these definitions of usability, the focus is on the user, not the product" (pg. 6). The usefulness of a product is determined by the users' perception, which in effect determines the usability of a product.

Usability Studies and the Internet

Usability research is the cornerstone of user-centered design because it produces information about the users and the tasks they perform in individual environments. Developers want to test their products or software to improve upon their current designs and functions. These results are only useful if they represent actual users or stimulate similar environments. Carol Barnum (pg. 9) lists five characteristics of usability testing from Redish and Dumas' research:

- 1. Improvement of usability is the primary reason for testing and each test must focus on specific goals and concerns. The usability testing team (or expert) must determine certain tasks and processes that need to be tested on real users. An overall usability study on a product or website will only be efficient if there are directed concerns, goals, and tasks for users to complete. This initiates interaction with the products at a user level.
- 2. Participants represent real users. This is for two reasons, the first being that someone from inside the company or a developer or designer of the product has too much knowledge of the product and opinion of the product to allow for any observational results. Real users can shed insight on an outsider's situation, yielding much more valuable results than assumptions from a design team. This is also a great way to determine if the target audience is being reached through the product. If your primary audience is reflected in your test participants the results are much more likely appeal to the majority of your audience than if designers

- had to assume what real users would have done in opposition to the test participants.
- 3. Participants do real tasks. The user will more comfortable if they are asked to do a real task and they will feel a sense of accomplishment when they finish.
 Participants can't be asked to do impossible tasks because it is unethical to create frustration and a sense of failing among the participants. Real tasks also yield real results for tasks that users are most likely to use the product or website for.
- 4. A team observes and records what participants do and say. It is important not to interact with the participant during testing so as not to skew their opinions or views or to alter their choices on how to use and interact with the product. The developers and designers won't be available for every customer or web visitor so the participant should be placed in the same situation where they must use the tools presented within the product itself.
- 5. A team analyzes the data, diagnoses the problems, and recommends changes to fix these problems. A usability report usually consists of methodology, test participant information, sample questionnaires, quantitative and qualitative information regarding specific tasks and reactions to the emotional appeal of the product.

Discount usability testing and studies. Before Nielsen's findings, usability testing was considered to be experiments that required highly trained and educated cognitive scientists and experimental psychologists (Barnum, pg. 10). Statistical information validated the small testing groups that Nielsen encouraged developers to use for usability testing on their products. Nielsen's approach to "discount" usability basically stated that

participants is three to five (Barnum, pg. 11) but it is acknowledged that five may not be sufficient if the audience is diverse in purpose, age, and web experience (Barnum, pg. 383). These same findings also reported that usability testing didn't need to take place in a high-tech environment with video recording of test participants; researchers could hand note participants' reactions for much less (Barnum, pg. 11).

Jakob Nielsen has written several columns and reports about website industry standards and usability design principles that facilitate a minimalist design. Nielsen ("Changes") and Barnum (pg. 113) discuss criteria that website users demand in all uses of websites: (1) speed, fast download times and scannable text because users don't take time to thoroughly read webpages and (2) predictability, users bring schemas and mental models from similar sites. A collected version of his top ten website design violations and design guidelines follows ("Top Ten Mistakes"):

Things to watch for in website design. Nielsen has prescribed a warning list of website industry standards that are accepted and practiced, even before his personal encouragement of them. He encourages designers to select solid, light colored backgrounds to allow for better readability of on webpages. A distracting, patterned background annoys the user and thus eliminates the connection between user and website. Help screens are also encouraged. The ability to get help for using a product is highly tested criterion in usability studies. The availability of good, instructional help allows for a larger variety of users to interact with a particular product or system.

Some other design features that he advocates are the use of homogenous link symbols (using all icon or all text links), eliminating long scrolling pages (he suggests

that all information per page fit on the screen, although there is no readability support for this), and to use standardized link colors (red for visited, blue for active, and purple for currently activated). He also prescribes that a sub-levels are kept to a minimum, that is, keeping the amount of clicking to get to specific information at a minimum. Along the same lines, there should be some consistency among new pages within the website (i.e. layout, color scheme, etc.).

Products or information listed on the website should also have some relation. The page should be organized for the purpose of one or two goals. The homepage should have some direction for the user to go to find specific information rather than crowding all available links onto the homepage. This design flaw can create an overwhelming sensation and confuse or frustrate the user.

Website design violations. For actions there are reactions. Too many pictures or design elements may result in slower downloading times, which tries the users' patience. Use of non-standard link colors (as described above) could also confuse the reader. Based on consistency and design factors of a website, however, the use of link colors are arbitrary as long as they are consistent within a website.

Another 'violation' is the long scrolling navigational pages. Nielsen admonishes the layouts and designs that require the user to work harder for something that could be easily rearranged and organized in a menu bar rather than long descriptions that require lots of scrolling. Along that same design flaw, scrolling text and looping animations are irritating distractions and are equated to pop-up ads; they don't gain attention for a product, they only annoy the user.

Frames and orphan pages are issues within the building of a website and the internal functioning of them. Although this only concerns certain amounts of web designers, the organization and error factors are still the same. Frames allow for the uploading of pages within a page, the end result looks like a frame around the new page. This can easily be coded wrong and pages can get lost while navigating a website.

Orphans are the lost pages that aren't able to load into frames due to coding errors. The user must then search for the lost pages by trying several links and reloading the entire site.

Bleeding-edge technology also encompasses the concerns of animation and looping whirligigs. Not all users will be as technically savvy as the developer and designer and to keep a website appealing and usable to a large audience, the website must keep the users' needs and familiarity levels in mind. Navigational support is something else the users will look for to learn the organization of the site. To compare it generically, the navigational support is like a table of contents in a magazine or book. These links should be descriptive and relate to the users' mental model of the site's product. The user must know a certain level about the site to use the products but some of the navigational links are industry standards, such as 'contact us' or 'about us.'

Complex URLs are not only difficult to remember but they are difficult to type. Although it seems like a small step for the user, frustration can occur if one letter or symbol is missed and the user must hunt through the entire URL to find the mistake. Customers don't appreciate complexity in getting to the product.

Outdated information, although it should go without mentioning, is something that occurs quite frequently. Users log on to find information on a product or event and

no new information is available. If a website is going to be posted for users to view, keep it updated.

<u>User satisfaction.</u> A major criterion of usability and user-centered design is user satisfaction of the product, not just usefulness. Carol Barnum describes this criterion as something that is entirely up to the user and is impossible to measure in any qualitative or quantitative testing such as validation testing or quality assurance testing (pg. 7).

Barnum lists several subjective questions that could be used to determine satisfaction levels during website usability testing:

- Is the user satisfied with the legibility of the font and the display of the information on the page or screen?
- Is the spacing between the lines appropriate for the user, given his or her visual capacity?
- Is the choice of color pleasing to the user?
- Is the design of the screen attractive to the user?

Heuristics in Usability

Jakob Nielsen, in an effort to maintain the chaos that became the internet boom, has published usability heuristics, that is, certain criteria, that a user expects to see in a website. The heuristics apply to the product interface (webpages) and are part of the usability testing to determine if a user can actually use the website by navigating it. The interface, more than anything else about the product, determines the user's experience as either good or bad, satisfying or unsatisfying. Common types of usability inspection, or evaluation of the product interface, are heuristic evaluations and cognitive walkthroughs.

Heuristic evaluations involve usability experts judging the usability of a product against a specific set of heuristics, or principles. Cognitive walkthroughs involve experts trained in cognitive psychology who evaluate the effectiveness of a product design according to its ability to match the problem-solving process users would employ.

Heuristic evaluations are more popular because of the low cost and small amount of equipment involved. And Nielsen (along with his research partner Mack) determined that heuristic evaluations are better predictors of end-user problems than cognitive walkthroughs (Barnum, pg. 41). The data gathered from heuristic evaluations using paper prototypes can be used immediately during product development. In a heuristic evaluation, each evaluator goes through the interface twice: once to become familiar with it and once to evaluate it according to the previously developed heuristics.

Barnum gives a description of heuristics used in these evaluations that begin with the fact that these are not tasks designed to test the product's performance but a set of predetermined elements that the interface should or should not include (pg. 36). The question of standardization arises in regard to the versatility that heuristics should have towards the product interface. Along the same line, Barnum is quick to note that heuristics are generally written to apply to the interface's original intent (pg. 36).

By acknowledging that interfaces (and in the larger picture, websites) are purposefully designed to appeal to specific audiences, Barnum and Nielsen are acknowledging that websites can be classified by genres, thus using genre criteria to evaluate how well a specific website has met the user's needs. In April 2005, I conducted an experimental heuristic evaluation on art museum websites to determine if there were indeed specific qualities that were unique among website genres. This test

was designed as an experiment. Having no formal background in usability testing, I researched several sources to find out more about website usability. I used two fundamental researchers, Donald Norman and Jakob Nielsen, to gain insight and theories about the field.

Ferrara Senior Thesis 23

EXAMINATION OF ART MUSEUM WEBSITES

Nielsen produced a list of ten usability heuristics from his research on website usability standards (1994b). Following are his heuristics and his descriptions of each:

- Visibility of system status: The system should always keep users informed about
 what is going on through appropriate feedback within reasonable time. For
 example, there should usually be maps showing the users where they are.
- Match between system and the real world: The system should speak the users' language, with words, phrases, and concepts familiar to the user, rather than system-oriented terms. Follow real-world conventions, making information appear in a natural and logical order.
- User control and freedom: Users often choose system functions by mistake and will need a clearly marked "emergency exit" to leave the unwanted state without having to go through an extended dialogue; support undo and redo.
- Consistency and standards: Users should not have to wonder whether different words, situations, or actions mean the same thing, follow platform conventions.
- Error prevention: Even better than good error messages is a careful design which
 prevents a problem from occurring in the first place. Either eliminate error-prone
 conditions or check for them and present users with a confirmation option before
 they commit to the action.
- Recognition rather than recall: Minimize the user's memory load by making objects, actions, and options visible. The user should not have to remember

information from one part of the dialogue to another. Instructions for use of the system should be visible or easily retrievable whenever appropriate.

- Flexibility and efficiency of use: Accelerators unseen by the novice user may often speed up the interaction for the expert user such that the system can cater to both inexperienced and experienced users. Allow users to tailor frequent actions.
- Aesthetic and minimalist design: Dialogues should not contain information which
 is irrelevant or rarely needed. Every extra unit of information in a dialogue
 competes with the relevant units of information and diminishes their relative
 visibility.
- Help users recognize, diagnose, and recover from errors: Error messages should be expressed in plain language (no codes), precisely indicate the problem, and constructively suggest a solution.
- Help and documentation: Even though it is better if the system can be used without documentation, it may be necessary to provide help and documentation. Any such information should be easy to search, focused on the user's task, list concrete steps to be carried out, and not be too large.

From Nielsen's established list of website usability focusing on utility and a combination of Donald Norman's three phases of design (visceral, behavioral, and reflective (pg. 21), I took the pieces that I thought would best fit the website domain of art museums and came up with the following heuristics for my tests:

- Visibility of System Status: Does the website system inform me of what is happening at any given time of interaction with the system? If feedback is required, is it timely? Can I locate my status within the system, rely on menus as maps, and can I see a path (crumb trail)?
- Consistency & Standards: Is the language use comparable to and understandable as average conversational usage? Does the website system parallel an actual museum in site division and development? Is there a consistent theme and/or standardized design element?
- Efficiency: Do menu options lead me through a direct path? Is the site consistent with domain expectations (art museums)? Is the website design and information unnecessarily redundant?
- Help & Documentation: When help is needed, can it be found and is it actually helpful? Is the site "error-proof" (is information available where needed)?
- Driver Control: Are there "emergency exits" if an error occurs? Does the user
 have the ability to maneuver within the site and out from it in such a way that a
 course can be developed and the user has access to the course as well as road
 signs to lead the way?
- Aesthetic Quality & Museum Experience: Was the website designed to be an
 enjoyable experience like the actual museum? Are the collections accessible in
 such a way that viewing an art piece is as technically enhanced as possible? Are
 viewing the collections digitally as satisfying as visiting them in a physical
 gallery?

Art museum heuristic results

From my heuristic evaluation report, I noted that "[the Museum of Fine Art, Boston website] parallels a catalog or daily newsletter. The homepage has a table of contents and features lists of exhibitions, galleries, and promotions. The welcome page is a letter from the director. The collections are divided as they are in the actual museum, a trait that is similarly incorporated into brochures from the museum." Regarding the text and writing quality of the Museum of Fine Arts, Boston, I conclude that the "rollover menus and a standing (left) main menu, colors, text size, and font all keep the site design consistent. The writing is all necessary."

Revisiting this evaluation, it became apparent that just because the writing was "necessary" doesn't mean that it met the goals of the website. The Museum of Fine Arts, Boston, is a usable website because it alludes to the actual museum, creating a digital gallery experience. The website is flawless when Nielsen's website design elements are applied (downloading is quick, for example).

However, the writing lacked a general enticement to the visit the museum in person. The writing quality, then, is probably unsatisfactory for persuading a potential visitor to spend the time and money to visit the show. For example, in one sample discussed below (William Koch), the authors say nothing about the paintings being exhibited, focusing instead on how William Koch came to be so wealthy and how he came to own the paintings.

GENRE AND WRITING QUALITY

Theoretically, websites should be a "rhetorical response to situational demands" (Miller, pg. 152), just like genres and media of other forms. Following the guidelines for rhetorical criticism of genre set out by Sonya Foss in *Rhetorical Criticism*, to understand and design a usable website a researcher would start by defining the key audience of the site. Abiding by these audience definition principles, Barnum lists three basic divisions of websites and their users (pg. 365): information (content); sales (commerce); and interaction (communication with other people).

Expanding on the basis of usability studies, Rubinstein and Hersh involve the theories of conceptual models or metaphors in product interfaces (Barnum, pg. 86). This suggests then, that all products draw on interfaces that are relative to popular interfaces allowing users to adapt to new products by drawing on past experiences and mental models based on similar interfaces. Their research determined that users apply invisible or insider systems using metaphors and models that they are already familiar with. Three principles dictate this theory:

- 1. Humans always form mental models, maps, or hypotheses about the underlying invisible processes of a system or machine to help them operate it.
- 2. A product's conceptual model should match the user's existing mental model or, if a new product is being developed, should make sense to the user, such as the "desktop metaphor" did when Apple introduced the popular graphical user interface for a large audience.
- 3. If the product's conceptual model matches the user's mental model or allows the user to create a mental model for use, then the product will be easier to learn and interact with.

This theory is important when applying genre theory to websites. There are several levels of user cognition involved with the product. The global levels occur with using the World Wide Web because anyone who is using a webpage is somehow accessing the World Wide Web. This, however, is not what we are concerned with at the local level. We want to determine if the webpage, an individual portion of information available via the World Wide Web, is usable for a predefined audience.

Methodology of art museum examinations

As I mentioned previously, there are arguably three basic website categories that provide a service for users: information; sales; and interaction. Art museum websites could possibly fall under all three. People may need to gather information regarding a certain artwork or artist and therefore be using the site for informational purposes. Users may use the site to buy a souvenir/gift or art print from the museum satisfying the sales description. Interaction is also an appropriate category for the art museum sites. People have expectations of an art museum website just as they do for an actual art museum: gallery browsing, gift shops, curator information for art works, gallery divisions, etc. Users should be able to accomplish the same goals online as they could in person visiting the art museum. These categories were designed around the following questions (Barnum, pg. 366), which focuses the entire user experience around the product/business:

- What do users want to know or do when they visit?
- What do users *need* to know?
- What's *most important* to them?
- What's the *problem* they are trying to solve?

Readability in Usability

<u>Text analysis.</u> There are abundant tests that determine the readability of text. For the purpose of analyzing website text, I am using a documentation text statement chart adapted from Geoff Hart in *Technical Communication*.

Statements About Text	
Language and jargon	Identify unfamiliar words or words that are used incorrectly.
Sentence and paragraph structure	Identify sentences/paragraphs that are unnecessarily complex.
Comprehension	Provide examples of text that is misunderstood on first reading.
Organization	Identify where there are too many or too few headings or an overly complex organizational structure.
Access	Identify any information you couldn't find easily in the table of contents, index, or other aids.
Statements About Illustr	ations
Quality	Identify any illustrations that were hard to understand because of the poor quality of reproduction (blurry, labeling too small, etc.).
Comprehension	Identify any illustrations that are too complex.
Correctness	Identify any illustrations that are misleading or incorrect, or that contradicts the text.
Completeness	Identify any concepts that could be enhanced by an illustration.
Statements About Page I	ayout
Positioning	Indicate where it was hard to find a table or figure referred to in the text or where the position of an item was confusing or interfered with your ability to read or scan text or seemed irrelevant.
Structure	Indicate any layout techniques that interfered with reading comprehension (quotations, sidebars).
Readability	Indicate where text was too small or tightly spaced or where the visual style made text hard to read.

As the chart above points out, positioning of text is just as important as the grammatical structure and vocabulary. The text is the highest of quality when it adequately meets users needs by giving relevant information about the product on the page that is dedicated to that topic or piece of the product.

Results from the Heuristic Examination

An analysis of pages from the Museum of Fine Arts, Boston, shows the application of some of the usability standards and their effectiveness or lack of. Both webpages were located under from the 'homepage' to the 'exhibitions' link then selected from a list of upcoming and current shows. Just this simple location process is clearly shown to us as a crumb trail located between the menu bar and the title of the exhibition (The William Koch trail looks like this: home > exhibitions > things i love: the many collections of william i. koch). The crumb trail efficiently fulfills Norman's visibility criteria (that is, the system should reflect to the user what is happening) and at the same time it is incorporating Nielsen's memorability quality by reminding the user of their paths.

The left-hand and top navigation bars are consistent with Nielsen's industry standards and learnability because they don't shift from page to page. The navigational tools also satisfy Norman's natural mapping design quality by placing the tools in the first place a Western eye will look: top left, a consistent location with cultural writing standards. The menus are minimal in options, resulting in several sub-levels.

The website, in general, is very usable. There is adequate information about products and services available on the site and there is a well-organized sublevel of information available for the different aspects of the museum (calendar, exhibitions, collections, etc.), both criteria from Nielsen's website usability list. Pictures and pages downloaded quickly, another of Nielsen's design qualities. It's at the core of the information presented, the writing quality that is not satisfying for the user based on genre standards.

In regards to Geoff Hart's statements on text (see previous chart), the page satisfies most of the criteria. The text is relative to the illustrations while being informative and concise. Nothing is repeated extensively and the language is at an appropriate audience reading level. Although neither page's text was in violation of Geoff Hart's focused statements on text, one has fulfilled the role for the pages' genre and one has not. Koch's page doesn't satisfy the advertisement genre of a museum brochure because the content of the webpage aren't consistent in their goal or purposes. Although they are both informational regarding the logistics of the exhibit, a typical heuristic criterion, the Koch page doesn't have a writing style that serves the larger purpose of advertising the exhibit. Yet, for all that, the quality and effectiveness of the writing on the pages is inconsistent, and the heuristic is unable to catch the inconsistencies.

A GENRE-BASED ANALYSIS OF THE WEB PAGES

Carolyn Miller produced a ground-breaking article in 1984 that argued genre is defined by the goals and outcomes of the discourse, not the similarities among artifacts in discourse, audience, modes of thinking, or rhetorical situations. "Genre as Social Action" includes a quote from Lloyd Bitzer describing a discourse's traditional standard becoming a standard by definition: "[These recurring forms and responses become a tradition which then] tends to function as a constraint upon any new response in the form" (Miller 152). Examples, which Miller gives of these traditional forms that have evolved into definitions, are eulogies, courtroom speeches, and inaugurals (152). Thus, when determining the genre or overall purpose of the website we must look at individual pages that make up the website because pages within a website serve different functions and purposes within the website compilation.

By analyzing the pieces of the webpages, or as Sonya Foss refers to them, the artifacts, purpose can be identified, and from the purpose the audience can be identified, thus making it possible to categorize the webpages as specific genres. The artifacts create a general sense of the page and its purpose within the website.

Both pages are designed for marketing and work very much like the brochures patrons will find at the entrances. If the genres are defined by their purpose, it becomes possible to define them as brochures (of a sort) designed to attract specific (and often unique) audiences to specific shows. Some audiences might be interested in exceptional and traditional photographs, while another might be attracted to abstract expressionist painting, or the tradition of impressionism. It is the unusual audience that would be attracted to them all, so the copy of the brochures necessarily embraces specific discourse

communities. Compare figures 3 and 4 to these kinds of marketing tools and the relationship becomes clear. Figure 4 uses catch phrases like "you're likely to see an Ansel Adams you've never seen before," and "the great depth of The Lane Collection allows us to present an exceptional range of work: early and late prints from the same negative, photographs of vastly different scale, and such rarities as a trio of folding screens, mural-sized prints, an early Sierra Club album, and even a Hills Brothers coffee can featuring an image of Yosemite blanketed in snow" intentionally connects to a specific audience. The "you" are those who know Ansel Adams are thoroughly familiar with his photographs, and so the copy promises them more than they have ever seen in the past. It promises the opportunity to see early works next to late works, evolutions of techniques, and unique processes even for Adams. This webpage demonstrates a recognition of the need, recognizes the audience, and satisfies the needs of the genre. persuades the user to visit the museum in Boston and pay an extra ticket price on top of the museum entrance fee. It fulfills the role of an advertisement.

The Koch page focuses on William I. Koch, not the works of art he brings to the museum.

The exhibition explores the collector's interest in sailing and the sea (Koch captured the America's Cup in 1992) with nautical paintings by Lane, Boudin, Dufy, and Homer; ship models and figureheads; and silver trophies. Koch's fascination with the American West is represented by major paintings and sculpture by Remington and Russell, Native American works, and rare firearms including the gun that killed Jesse James and General George Armstrong Custer's hunting rifle."

There is no attempt to connect the reader to the art, or even identify any specific pieces beyond the gun that killed Jesse James and Custer's hunting rifle. On the other hand, who would rush to the museum to see unidentified trophies or unidentified ship models or figureheads (from something, but who knows what)? In short, the writing (probably taken in total from a press release) fails to meet the needs of the genre.

Writing quality in the other Pages

More examples from the Museum of Fine Arts, Boston website include an exhibition page for the David Hockney that states

The best-known British artist of his generation, David Hockney portrays friends, family, and lovers—and himself—in works that have become icons of our times. For five decades, David Hockney's portraits have expressed this influential artist's passion for life. Curious, experimental, and clear-eyed, Hockney is a master of many media, engaging directly with his subjects from mod Londoners to LA's coolest, creating memorable images of his parents, fellow artists, and companions. The exhibition, the first devoted solely to Hockney's portraiture, premieres at the MFA. (http://www.mfa.org/exhibitions/sub.asp ?key=15&subkey=638, accessed 4/25/2006)

This is the only text (besides the featured artwork caption) that describes the show. It doesn't promote it, necessarily, because it gives no particular reason for visiting the show. Hockney's fans may know what Hockney's portraiture will look like (they are stark and unique and usually somewhat stiff), but This paragraph sounds more like an introduction to an article on David Hockney's work, and it falls short of expanding upon the introduction. This page, like figure 3, falls short of being an advertising tool for the museum.

In opposition the exhibition of "Degas to Picasso: Modern Masters" is an ambitious, kaleidoscopic survey of European art from 1900 to the 1960s. This unprecedented panorama of modernism..." This writing piece is off to a great start but this excerpt is the only piece of enthusiasism for the exhibit. "...from the MFA's collection occupies the Torf and Trustman Galleries as well as the Museum's Lower Rotunda, presenting a rare opportunity to see more than 280 works in diverse media, some newly acquired and others rarely on view due to space limitations or sensitivity to light." The location of the exhibit becomes the main focus and the mention of rarely viewed pieces is stated matter-of-factly. The description continues with "the School of Paris is represented by Matisse and intriguing artists such as Berman, Despiau, and Zadkine," a sentence that could easily have been exaggerated to showcase the lesser-known artists Berman, Despiau, and Zadkine. The best use of advertising that utilizes the fact that Degas and Picasso have works in this exhibition is the use of the title "Degas to Picasso: Modern Masters" (http://www.mfa.org/exhibitions/sub.asp?key=15&subkey=524, accessed 4/25/2006).

A final example of marketing writing may be found in the description of a showing of posters from the '60s.

In the spring of 1966, the Avalon Ballroom and the Fillmore Auditorium, two separate venues near the Haight-Ashbury district of San Francisco simultaneously began promoting weekly rock concerts by local musicians. The bands who played at these dance concerts—including Jefferson Airplane, the Grateful Dead, Big Brother & The Holding Company (featuring Janis Joplin), Quicksilver Messenger Service, and Country Joe & The Fish—created a brand of loose, blues-based improvisational jamming that would become known as 'The San Francisco Sound.'

The owners of both venues commissioned an ongoing series of posters to advertise their weekly concerts. The Avalon series ran through November 1968 and numbers about 150 posters; the Fillmore series continued until July 1971, and includes nearly 300. A third, smaller series of vibrant, eye-popping posters called *Neon Rose* was designed by Victor Moscoso.

"The prints in this exhibition, all dating from 1966-67, were selected from a group of thirty-eight posters recently donated to the Museum by members of the Visiting Committee for the Department of Prints, Drawings, and Photographs.

"To heighten your journey back to the Summer of Love, download and listen to tracks from that era while viewing the art. Suggested songs include live versions of the Grateful Dead's 'Dark Star,' Janis Joplin's 'Summertime,' The Doors' 'Light My Fire,' and lesser-known gems like the original 'Somebody To Love' by Grace Slick's first band, The Great Society."

This description actually spends more writing on the promotion of the playlist for the exhibit (which, by the way, was available to download from the webpage) than it does promoting the rarity of the posters (http://www.mfa.org/ exhibitions/sub.asp?key =15&subkey=2147, accessed 4/25/2006).

Discussion

The Museum of Fine Arts, Boston's website is usable; what it lacks is quality and satisfaction among the intended audience. The audience, if derived from the individual web pages, would be someone who is familiar with Koch's collection and his biographical wealth or the Haight and Ashbury revivals and probably owned one of the posters. The audience that the Museum website should be reaching to is potential visitors, people who will pay money to see these exhibits in real-life. The websites are

formatted in the correct genre, such as a museum brochure, to reach these intended audiences. The writing is not geared to satisfy the intended audience's questions or intrigue about the pieces. Several pages from the website indicate a problem that plagues this particular website. The website, although determined to be satisfactory by usability standards, is not satisfactory to an audience through the purpose of genre. The writing is as disposable as the pictures on the individual pages.

CONCLUSION AND CLOSING THOUGHTS

Norman explains in *Psychology of Everyday Things* that systems contain certain psychological vibes senses such as affordance (1988, pg. 9). Affordance "refers to the perceived and actual properties of the thing, primarily those fundamental properties that determine just how the thing could possibly be used" (1988, pg. 9). Materials need to yield to their audience in form and function. Norman is explaining that properties should be self-explanatory and parallel to users' cognitive expectations of the product. When these affordances are properly applied, the user knows how to handle the material or product upon immediate approach. When users understand the material or products, the need of user manuals, instructions, and labels are eliminated or decreased (pg. 9).

When it comes to industry standardization of websites, we must keep in mind that websites fall into different genres and are essentially an electronic version of traditional print media. Not every website will have a 'home' page, a 'contact' page, and an 'about us' page. And not every website will have a solid colored background to enhance readability. The influx of new media and the digital artistic expression that it allows will make usability somewhat arbitrary because visiting a website is an experience much like visiting an art gallery and interpreting traditional art. I also argue that there should be a fourth category to Barnum's website categories: information, sales, interaction, and entertainment. As the World Wide Web becomes available to a larger population of diverse users the material available will not only satisfy mere questions and tasks but provide an environment of enjoyment and pleasurable design.

Norman sums up the standardization reasoning in *Psychology of Everyday Things*: "When something can't be designed without arbitrary mappings and difficulties, there is

one last route: standardize. Standardize the actions, outcomes, layout, [and] displays. Make related actions work in the same way. Standardize the system, the problem; create an international standard. The nice thing about standardization is that no matter how arbitrary the standardized mechanism, it has to only be learned only once" (1988, pg. 200). I think that websites are already standardized in their display: a screen displays information in a web browser; layout, text is written in the cultural regulations from top to bottom, left to right; outcomes, links are either active and lead to sublevel of information or they don't; and actions include opening pages, copying selected bits from pages, or moving onto another page within or in another site.

"Standardization is essential only when all the necessary information cannot be [displayed] or when natural mappings cannot be exploited." (Norman, 1988, pg. 200)

Like Norman's guidelines for design in *The Psychology of Everyday Things* are to follow basic design standards that are natural reactions to users' cognitive psychology:

- Understand the causes of error and design to minimize those causes.
- Make it possible to reverse actions (to "undo" them) or to make it harder to do what cannot be reversed.
- Make it easier to discover the errors that do occur and make them easier to correct.
- Change the attitude toward errors. Think of an object's user as attempting to do a
 task, getting there by imperfect approximations. Don't think of the user as making
 errors; think of the actions as approximations of what is desired.

In the end, developers and analysts are focusing too much on the tasks and losing sight of the goals and user experiences. As Barnum notes, "users' tasks are not necessarily users' goals" (pg. 91). The tasks are what are developed and focused on for

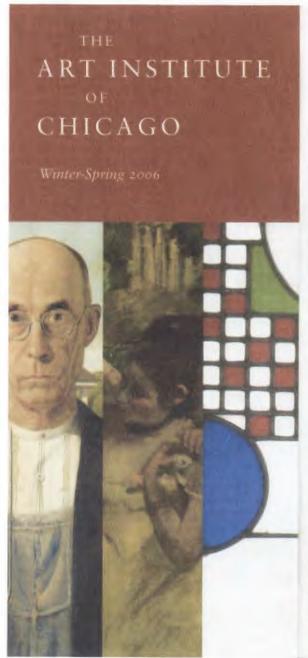
in-depth usability studies but the goals and user experiences are subjective tests that involve user input and carefully designed heuristics that lend to the goals of the website. If the website is a new media experience and multiple senses are being used then the site will probably be more exploratory in nature; therefore, adapting said industry standards to meet their users' needs: simple navigational tools, an interactive display, and 'undo'/'redo' functions. Usability studies are supposed to focus on the user and their needs and goals.

REFERENCES

- Barnum, Carol M. Usability Testing and Research. Pearson Education, Inc.: USA. 2002.
- Foss, Sonja K. Rhetorical Criticism: Exploration and Practice. Waveland Press, Inc.: Prospect Heights, Illinois. 1989.
- Hailey, Christine and David. "How Genre Choices Effect Learning," *Journal of Engineering Education*. October 2003.
- Miller, Carolyn. "Genre As Social Action," *Genre and the New Rhetoric*. Taylor & Francis, Inc.: Pennsylvania. 1994. pp. 39-42.

Jakob Nielsen, Alertboxx.com, several columns

- -"Changes"
- -"Top Ten Mistakes"
- -"Heuristic Evaluations"
- Norman, Donald A. Emotional Design. Basic Books: New York. 2004.
- Norman, Donald A. *The Design of Everyday Things*. Doubleday Publishing Group: New York. 1988.
- Wysocki, Anne. "Bookling Monument." Retrieved 18 April 2006. http://www.hu.mtu.edu/~awysocki/bookling/bookling.html



Girodet: Romantic Rebel

February 11-April 30, 2006

This exhibition is the first retrospective in the U.S. devoted to celebrated French artist Anne-Louis Girodet de Roussy-Trioson (1767–1824). The Art Institute is the first American stop on a tour that began at the Louvre and continues at the Metropolitan Museum of Art. More than 100 seminal works demonstrate Girodet's range, from mythological subjects to portraits and representations of Napoleon's military triumphs. A favored but rebellious pupil of Jacques-Louis David, he developed his own idiosyncratic style—a fusion of David's staid Neoclassicism with an imaginative, sometimes erotic, Romantic vision.



hero-Louis Grodet de Roussy Trisson. The Bartol of Atels, 1813. Musele Grodet, Montargis.

Casas Grandes and the Ceramic Art of the Ancient Southwest

April 22-August 13, 2006

Working from around A.D. 1280–1450 in the flourishing ancient Indian communities of the American Southwest and northern Mexico, master potters created ceramic arts that are considered among the most accomplished in the world. Simple volumetric shapes were covered with complex, interlocking geometric designs that were sometimes combined with bold abstract animal, human, or composite figures. This innovative exhibition highlights Casas Grandes ceramics from northwest Mexico, never before presented in the context of the Southwest tradition with works of such highlights rechipments.



Figure 2: Example of an art museum brochure, marketing specific shows.



Figure 3: Screen capture from "Things I Love."



Figure 4: Screen capture from Ansel Adams show.



Figure 5: Screen Capture from david hockney portraits exhibition.



Figure 6: Screen capture of "Degas to Picasso" exhibition.



Figure 7: Screen capture of "Light my Fire: Rock Posters from the Summer of Love."

49