

For Here or To Go? Designing User-Centered Experiences

[Melissa Niederhelman](#) Arizona State University

In this description of "Observing Users/Designing Experience," a workshop developed and conducted at Arizona State University by Paul Rothstein, Niederhelman and Katherine and Michael McCoy, the author examines user-centered methods in the design process as well as interdisciplinary collaboration in creating innovative solutions for a café of the future.

[Introduction](#) 1

[The Workshop](#) 2

[Emerging Themes](#) 3

[Post a comment](#)

[Read comments](#)

Have you ever considered how everyday experiences are influenced by designers? Whether ordering a turkey sandwich for lunch or shopping for new shoes, designing the "experience" of these events requires designers to think in new ways and to use new methods for creating effective solutions that involve sequence, interaction and a greater understanding of the user. This trend toward user-centered rather than sender-centered messages and design has implications for designers far beyond traditional print products and even beyond the Internet and interactivity. How do designers address the integration of information, environments and sequences of events in a way that is both beneficial for and meaningful to the user?

Designing effective experiences consists of three fundamental elements. First, the designer needs to have a thorough understanding of users and how their interpretation of information, events and objects will effect their experience. Second, the designer must think beyond the product. Designing for experience does include products as well as identities, images, information and artifacts, but it is not limited to these things when considering interaction and sequence of events. Third, the designer needs to employ interdisciplinary collaboration. All designers including graphic designers—are dependent on other disciplines to help develop a comprehensive and useful experience.

An excellent example of a user-centered, interdisciplinary approach to designing experience took place during the spring 2000 semester at Arizona State University's School of Design. "Observing Users/Designing Experience," a workshop developed by Paul Rothstein (assistant professor in Industrial Design), Melissa Niederhelman (assistant professor in Graphic Design) and Michael and Katherine McCoy (founders of the design retreat, Highground and faculty at Illinois Institute of Technology in Chicago) produced a rare opportunity to examine user-centered methods in the design process as well as interdisciplinary collaboration in creating innovative solutions. The participants included graphic designers, industrial designers and interior designers. In a unique approach to team building, students and professionals worked side by side in their groups. This article outlines and describes the events of this three-day workshop, voices feedback from participants and attempts to demonstrate the place of user-centered methods and interdisciplinary collaboration in design practice and education today. 3

⤴ **Melissa Niederhelman** (melissa.niederhelman@asu.edu) writes about design and is currently assistant professor of Graphic Design at Arizona State University. She has also held teaching positions at the Rhode Island School of Design, Massachusetts College of Art and Massey University, School of Design in Wellington, New Zealand. She teaches design research and planning as well as the principles of interactivity for designers and architects. Her research and writing interests include interdisciplinary process in design and the changing ways people access, use and interpret information through design today.

The Workshop

[Introduction](#) 1

[The Workshop](#) 2

[Emerging Themes](#) 3

[Post a comment](#)

[Read comments](#)

Let's do lunch: assignment and research

The assignment for the workshop event was to design solutions for a dining experience in the year 2020. Working in teams of six to eight people, the professional and student participants were asked to design a café for the future based on cultural, technological and social trends and factors. They were asked to think about the café as a place with a rich history for public gathering and social interaction, then to speculate about where things might go in the future by redefining the concept of the café based on field research. At the end of the three-day workshop, participants would “perform” their solutions in a play-acted scenario for everyone to review.

In order for teams to better understand and research how people use cafés, socialize, interact, etc., they needed to observe people in an actual dining environment. For this the participants were encouraged to use ethnographic methods of observation. This user-centered approach to design research was an important methodology during the workshop and helped to define the process teams followed in reaching solutions. ASU's Paul Rothstein introduced the method when the workshop began and prepared students to hit the streets and collect the information they needed to create their dining scenario. Rothstein explained, “Ethnography is a process of discovery that leads to people-centered awareness. It is a useful way to understand context, artifacts and behavior tendencies.”

To help with the ethnographic research, the McCoys encouraged teams to look for patterns of behavior and trends in public dining environments. Was it possible to identify subcultures among users defined by interests, values and communication styles? With all this in mind, teams were sent to different locations to watch and record what they observed. The locations observed included a large on-campus cafeteria, an off-campus coffee shop and a local café where both students and professionals would visit for lunch or dinner. The first day was spent primarily on information gathering—note taking, sketching and anonymous observation. They studied not only how and what people ate but how they interacted, how they ordered, who was alone, who was in groups, the flow of activity and the objects, furniture and signage of the space. Once teams began to identify and learn more about users, they were asked to return to the studio and start the process of making sense of what they found.

The future of food: analysis and concepts

The analysis phase of the design process asked teams to identify and focus on one user group, or several specific user groups for the purpose of their solution. These groups needed to be well-defined and based on the team's research as much as possible. The analysis phase also required teams to consider and speculate about several aspects of the dining experience in the future:

- **The future of food—changes in American eating habits and food trends**



Katherine McCoy discussing field research and user observation.

“Ethnography is a process of discovery that leads to people-centered awareness. It is a useful way to understand context, artifacts and behavior tendencies..”

—Paul Rothstein



Sketching and drawing were encouraged as tools for conceptualization.

“Even though each of us had been to a restaurant countless times before, most of us had never really studied how other people used the space.”
—student participant

- **The future of technology—the impact of new technologies on the dining experience**
- **Social and cultural human factors—identifying subcultures, learning how groupings change and evolve and observing the interaction between groups**
- **Public discourse—the nature of public dialogue in the future, and how it will be reflected in eating places like cafés**

Because they focused on the users in the different locations, teams were much better prepared to conceptualize and develop more appropriate solutions. This became an important part of the development process for many participants who had not integrated user-centered methods in their design work before. One participant commented, “Even though each of us had been to a restaurant countless times before, most of us had never really studied how other people used the space. Our time observing users helped focus our work on user behavior and taught us how to design based on these needs.” The idea of stepping outside oneself as a designer was an important realization to some. Another participant commented, “The field research was useful to point out actions we were unaware of from our subjective point of view. Our own routine associations with such places did not enable us to fully understand the actions of patrons in restaurants. The opportunity to step out of the routine and view the actions taking place gave us examples of things like chair movement, queuing and social and private groupings.”

Another important aspect of the analysis phase involved developing characters that would assume users’ roles in the play-acted scenarios. Characters were used to define user types, to show interaction and to demonstrate how the designed experience would effect the user. Here too the ethnographic field research was a principle influence in modeling and structuring the experience. To explain how their team defined characters, one professional participant said, “The characters for our scenario were drawn from different points of view of modern American culture recorded in our user observations. This helped us focus our design and then create a scenario that would justify it.”

Designing experiences requires a great deal of conceptualizing and brainstorming to accommodate the many factors that will become part of the solution. Workshop teams began this process with some guidance from the McCoy’s who explained that design concepts should include as many aspects of the dining experience as possible, including environment, furniture, lighting, music, eating utensils, menus, graphic identity and staff uniforms. It was important for teams to think in terms of the five senses as well and to be careful they didn’t overlook any of them as key components of the overall experience.

While conceptualizing their scenarios, teams utilized several methods, including storyboarding, drawing, diagramming and, as one student termed it, “verbal judo.” Teams worked energetically as they thought about possibilities for dining in the future. How will it feel? How will food be served? How much will technology be part of the experience? Technology did in fact play a major role in the conceptualizing of their future cafés; however, basic human needs were not overlooked. In many cases, the teams incorporated technology to facilitate the dining experience rather than to enhance it. For instance, technology may have been incorporated to make a process more efficient or to enable better communication, but it was rarely used as a promotional device or a way to lure

users into a high tech environment. "Technology can only do so much," said one professional reflecting on his team's work. Many of the participants even found themselves questioning current technology and its viability in the year 2020. "Wait a minute! Will there even be laptops in the future?"

As the interdisciplinary teams worked to conceptualize their experience designs, another interesting by-product of the design process emerged. Teams soon found that, with the different discipline-specific languages they brought to the group and the lack of terminology for the futuristic ideas they were developing, they required new vocabularies. In order to effectively describe and name their ideas, they created new words, phrases and titles to support the concepts. Some examples included the "Netscape Goddess" who was contacted through an "earport" to make a reservation, the "droamer" that floated through the air offering snacks to diners while they wait and the "bio-light" that glowed and sensed the mood and nutritional needs of the customer. It seems as though the development of these new languages also became part of the design solution.



Participants in costume and acting out a scene at the "GoThereCafé" on the last day of the worldshop.



Team members playing character roles in the set they created for the "Bio-Light Café."



Sketching and drawing were encouraged as tools for conceptualization.

Today's specials: scenarios and presentation

The final outcome of the workshop assignment was a live performance that required each team to "play act" the dining scenario the members had developed to represent the experience. The performances included characters that defined users, props, sets and a plot or sequence of events that demonstrated how the experience would unfold. This unique approach to formalizing the design process and presenting solutions in real time was an important aspect of the workshop curriculum and reflected the ephemeral and improvisational nature of experience design itself.

The solutions teams presented were innovative and diverse. They invented concepts for everything, including the café's identity, its atmosphere, layout of space and furniture and the dining experience's sequence. Observations each team made in the field were used as references and inspiration for developing more user-centered dining solutions. Examples of proposed solutions included:

Go-There Café—a virtual café environment where customers chose at which location they would like to eat (Paris, Antarctica, etc.) and, through virtual reality technology, were "transported" there. Diners sat at tables and ate while visually immersed in the virtual world they saw through special goggles.

Bio-Light Café—a futuristic café whose main feature was a large "bio-light" used to scan customers for information about nutritional and mental health. The café featured all organic food ordered from a holographic menu and "smart polymer" furniture, plates, glasses and utensils that were pliable, which made it possible for the objects to regenerate themselves in different forms and sizes for additional use once the customer had left.

Café 20/20—a place for college students to hang out and meet friends with a unique layout and communications system. Customers could use real-time communication links stationed around the café to “hookup” with others and learn more about them. This café also featured a grand entrance announcement about the customer, describing their interests and catering to the needs of young egos.

Needless to say, each of the scenarios required a bit of imagination from the viewer because props and sets were inventive yet rough—more than a few rolls of duct tape and aluminum foil were used to visualize ideas. Students were given a modest budget for materials. They had access to digital technology (used primarily for projection), the model shop and tools as well as the use of furniture and space within the school. However, the visual realization of products, spaces and information was not as important as the collaboration of the team and the communication of their idea through the scenario. “The crude simulations forced the audience to bring a lot to the productions themselves and interpret or imagine,” said Michael McCoy after the performances. Students also realized that this was different from the usual projects and products they were required to produce in their classes. “With the acting, we are no longer presenting a ‘thing’ but more of an ‘event,’” said one student.

“With the acting,
we are no longer
presenting a
‘thing’ but more
of an ‘event,’”
—student participant

Party of three: interdisciplinary process

While the workshop focused on a user-centered approach to the design process, it did so within an interdisciplinary context that afforded a unique and timely team experience. As the design fields become more interdisciplinary and the boundaries between them blur, collaborative processes are necessary to address the dynamic nature of design problems. The three-day “Observing Users/Designing Experience” workshop was a successful example of the power and potential of interdisciplinary design in both practice and education. Each team was made up of at least two graphic designers, two industrial designers and two interior designers and was a combination of both students and professionals. Teams were organized this way in order to maximize the diversity of skills and perspectives within the group and to promote more constructive dialogue about the design process. The mixing of disciplines and levels of experience created a work atmosphere that was wonderfully seamless. “I was impressed how each discipline contributed to the solution and it wasn’t based on individual skills,” said one student about their team experience.

The diversity of teams seemed to encourage more well-rounded solutions that were responsive to a variety of users and situations. It may be difficult for an individual graphic designer to think spatially about a project or for an industrial designer to address issues of wayfinding and communication. But people taught and helped one another in this workshop. As a result, little was overlooked or left unresolved. At times, aspects of the final results were driven by certain team members—identity strategies were influenced by graphic designers and industrial designers developed props. However, team members seemed to easily look beyond these defined roles and work as a whole. “Our hope was that they would almost forget about disciplinary lines and just work on the problem together,” said Michael McCoy about the team collaboration.



Michael McCoy advising and critiquing an interdisciplinary team on elements of experience design.



Interdisciplinary team discussing strategy for creation of their scenario performance.



Brainstorming session by team members based on user research and analysis.




Identifying user types based on research was an important part of the workshop process as seen in these team sketches.

What'll ya have: defining users

The "Observing Users/Designing Experience" workshop was a chance to examine just how user groups are defined and what makes them unique. However, understanding users and their tendencies for the purpose of design requires a certain amount of analysis to recognize what Katherine McCoy called "interpretive communities."

In her public lecture the evening before the workshop started, Katherine McCoy talked about the differences between mass communications—"one size fits all"—and tailored and tailorable communication. She pointed out how interpretive communities defined a greater portion of our communications audience with smaller and smaller audience groups to consider. With more tailorable media and messages available today it is important to consider the experience involved in the interpretation of meaning. "Meaning is not made by designers but rather by the user through interpretation," explains McCoy. When it came to the workshop and analyzing different user communities, she suggested several criteria such as values and identity, communication styles, ergonomic characteristics, preferred media and distribution channels and visual symbols, all of which categorized and identified traits among different people.

McCoy also discussed the new area of experience design in her lecture and made an argument for its relevance in design disciplines. "Experience is actually a new form of product," she explained. "The 'big idea' or individual intuitive approach is no longer sufficient. We are now moving into the next round—solving problems by creating experiences. As a result we need to teach students to work with others." This idea of thinking more holistically is changing the way design is organized and the way designers work together. The focus on products no longer seems as important as how that product fits into the larger context of the experience. How and where will it be used? When will people use it and can they customize it to make it more personal? This relationship between product and experience created unusual yet sensitive solutions during the workshop, because participants appeared to be more concerned with the social aspects of their solutions than the visual or physical result. 

Emerging Themes

[Introduction](#) 1

[The Workshop](#) 2

[Emerging Themes](#) 3

[Post a comment](#)

[Read comments](#)

I'll take that to go: emerging themes

By focusing on a user-centered approach to the design process and providing distinct methods and tools for conducting observation, the workshop assignment was rooted in research rather than in speculation. This was important since the application of research methods is often overlooked in the design process but is essential in promoting design as a responsive, strategic endeavor rather than an artistic, self-serving one. The use of a research methodology to make connections, find relationships, understand users and consider cultural influences or message interpretation is new to many designers (especially graphic designers). In this workshop, however, participants were able to see first hand how research methods could directly influence final solutions and create more user-centered results. Potentially, interdisciplinary teams made up of a mixture of designers and nondesigners (such as sociologists, anthropologists or marketing experts) could foster even greater exchange of research methods, which would expose the design process to more tools for solving complicated communication, product and experience design problems.

Experience design involves much more than the individual components of communication, objects, spaces and activities. Experience design is about the integration of all these things as well as the definition of the user. Who are they? What do they want? What can they do? Why should they be interested? These are just a few of the questions participants of the "Observing Users/Design Experience" workshop were asked to consider in designing new experiences for dining in the future. Each team in the workshop developed and performed a scenario describing an experience based on their own research about defining users. Interestingly enough, the results of such a usercentered approach lead to solutions that were very socially aware and community driven. Even with the influence of future technologies the scenarios were very human focused. It seems that the participants' field observations may have made them more sensitive to basic human needs when it comes to aspects of the dining like nutrition, social interaction and individuality. Many of the final solutions emphasized things like building communities, such as the project designed for college students to help them meet and make new friends, or nutritional well being like the solution that scans customers in order to determine nutritional deficiencies and help them decide what to order. According to workshop participants, the dining experience of the year 2020 will be healthy, socially conscious, sensitive to issues of disposability and provide something for everyone no matter what they are looking for.

For the professional designers and design students who took part in this workshop event, three important themes emerged from the process: applying a user-centered methodology to design process; learning to look beyond the product at the larger context of the design solution; and understanding the benefits of interdisciplinary experience in solving design problems. The days of traditional role playing for designers are ending. With any luck our students and professionals will further these trends in their careers well through the year 2020.

