

Designing for the User Experience



...No Longer an Option

“If our site is designed well, it will reflect
our respect for each of our diverse
audiences”

- Yvette Jenkins, Manager Web Communications, Varian



User Experience – the overall quality of a user's interaction with a service or product.

Usability – the effectiveness, efficiency, and satisfaction with which a specified set of users can achieve a specified set of tasks in a particular environment.

(International Standards Organization (ISO) definition)



at a very basic level, the user experience is the overall quality of a user's interaction with a service. It does not have to be a computer-based interaction.

The International Standards Organization has defined usability as "the effectiveness, efficiency, and satisfaction with which a specified set of users can achieve a specified set of tasks in a particular environment.

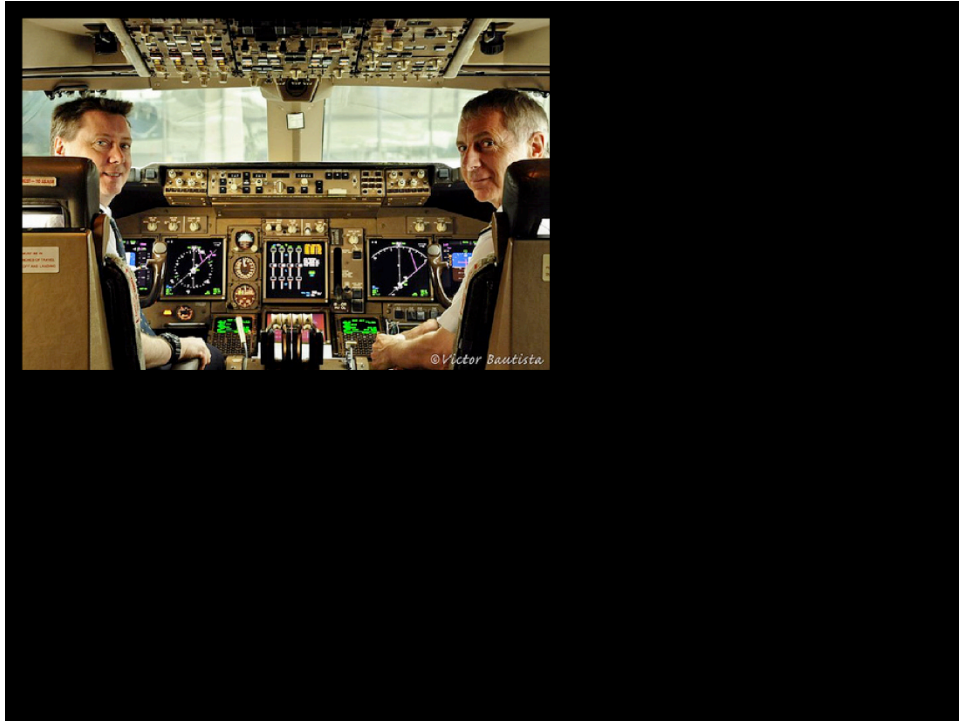
Based on the ISO definition, as we design for usable services, the question we must ask is "can the target audience accomplish their goals in a timely, accurate manner that is satisfactory to them?"

There are several key elements in this definition that must be remembered.

Number 1, a specified set of users. The service must be designed to accommodate the needs and capabilities of the target audience.

In addition, the service must address certain tasks, ideally within a known environment.

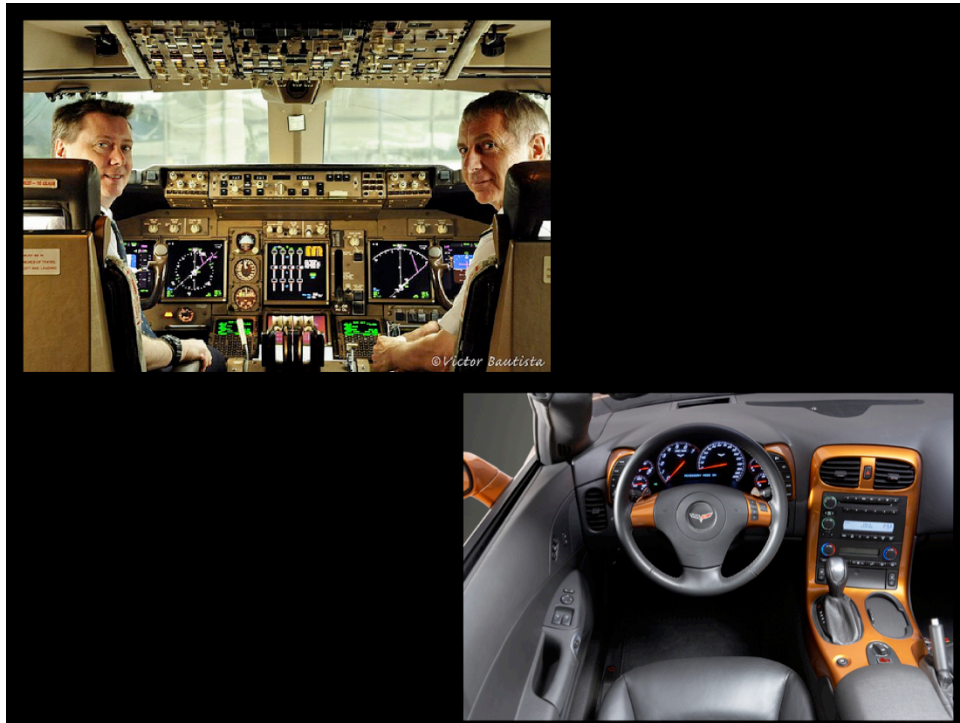
What is necessary and works well for one set of users in a certain context, won't work at all for a different set of users in another context and with different goals to achieve. We are asked in Empowering people to 'recognize that one size does not fit all' in terms of IT needs, capabilities, and resources. This is a basic precept of usability



An example to illustrate how something can be usable in one context, but not in another.


The complex set of controls displayed within the cockpit of an airplane is necessary for pilots. All of the controls they need are incorporated into a display that they are ***trained extensively*** to use.

Would this type of control panel work for a walk-up and use service for the general public?



Would any of us want to deal with something like this on our car dashboards?

it is clear in this example that the user, the tasks, and the context must all be considered.



Font style

The definitions and concepts just shown seem fairly straight forward, however there is a great deal of confusion about what user experience design is. In the materials that were sent to you earlier in the week, I included an article that addressed a number of misconceptions concerning user experience design. I would like to highlight just a few of those here today.

One common misconception is that user experience design is all about the interface and what it looks like.. for example what font type should be used?
Something like this?



Is this style legible?

Can color be used? If so, what color is best?

What about artistic styling of our text?

What size should the font be?

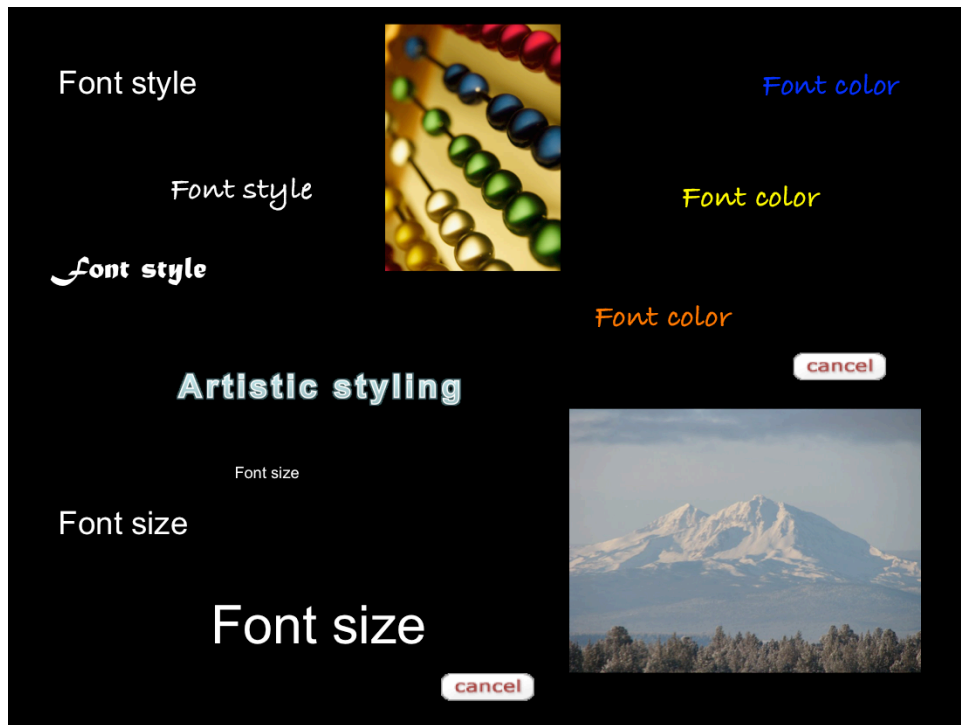
We can fit more information on the screen if we use a small font...but

is it legible? will the users read it?

Is this big enough?



If we are providing an application with action buttons, where should the button go? On the side? Or, perhaps down at the bottom of the page?



Can we use images? How many? What type?
Something abstract?
Something a little more natural?
What illustrates the main points and invokes the right reactions from users?



The look & feel can make or break an otherwise good service.. for example...

The page shown here used to be the home page of a hospital's satellite facility in Indiana.

The user can click on various portions of the cartoonish image to find a doctor, learn about the ambulance service, or even visit the virtual nursery by clicking on the stork!

The user could enter the hospital 'lobby' by clicking on the doorway.



From the lobby, site visitors can access many types of information from visiting hours to the hospital history. The user can go back through the door to return to the homepage.



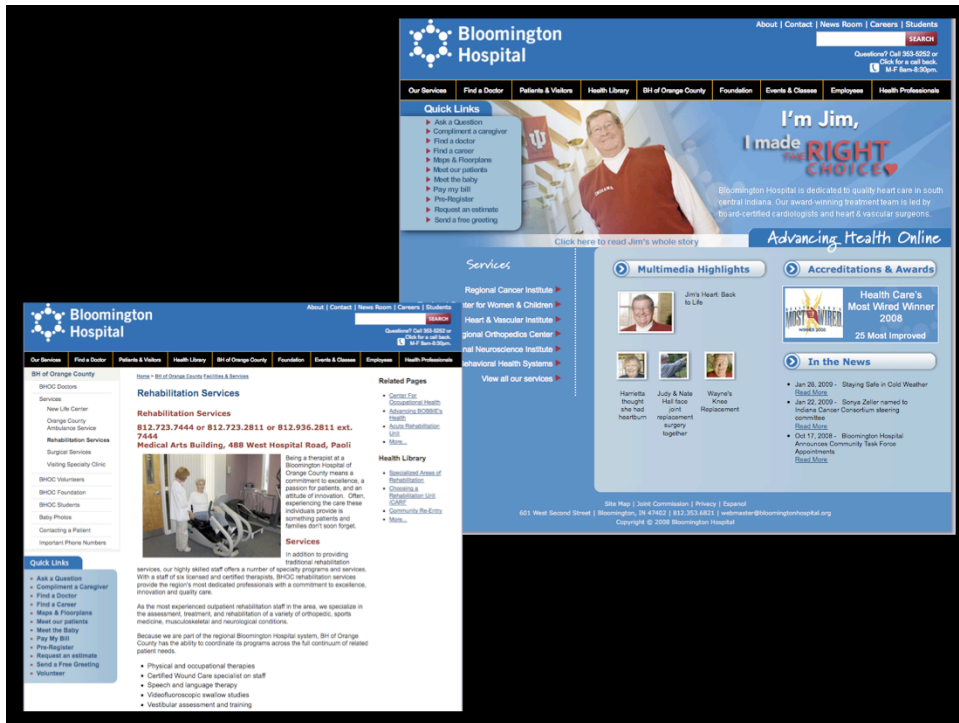
The site was developed using clip art and animated icons, making the user further question the professionalism of the organization the site represents.



The screens do not inspire confidence nor do they reassure you that you can trust your health issues to this organization. What does the look and feel imply about the target audience it was designed for? People that participated in our user evaluation sessions did not understand why the site satellite hospital was so different than the parent hospital site and they were offended by the unprofessional look and feel that seemed to belittle them. Things have changed significantly since we evaluated this site a few years ago.



Site visitors can now access services through the redesigned homepage of the parent hospital website



and see services specific to the satellite location on pages that look modern, knowledgeable, and professional. Pages that inspire trust and confidence for folks looking for something as serious as health care services.

Bloomington Hospital actually went from this design to a design that won them a national award - the UXG was instrumental in guiding that change...

It is rare that we find a site that illustrates the importance of the look and feel as well as this one does.

And, although, as shown in this example, the aesthetics of interface design is important and we do offer services to address them, this is only 1 small aspect of what user experience design is all about.



User Experience Design

Another misconception is that user experience design is something that can be done, as a distinct task...



User Experience Design

something in a list to be checked off as completed and then the team can move on with development...



User Experience Design

However, user experience design is not a single discrete step that can be checked off and forgotten. it is not an easy, 'one-size-fits-all' cookie cutter solution. To be effective, user experience design must be part of the overall development process.



As we all know, the development lifecycle for creating a new service or modifying an existing one is a process - many times a long process. To provide a good user experience, user-centered design methods must be incorporated throughout that process. You will notice in your materials, a poster that uses the chutes and ladders game to illustrate some of the many steps that can be taken to include user-centered design activities throughout development.

A good example of this from work the UXG has done is the Kualu Coeus project for research information

The UXG has been heavily involved from the beginning

Many meetings were necessary, up front, to get up to speed on system requirements, business rules, user requirements, and understanding the subject matter. this can only be accomplished by meeting with stakeholders and getting input on what they know, what they do, what they have to do, and what they want to do. In this case, stakeholders included: system developers - from both the existing Coeus and the Kualu project, faculty members, administrative staff, internal review board, etc. in addition to the various stakeholders, we also had to consider the differences between requirements and users at the various institutions that will implement the system in the future,

Only after gaining an understanding of the service, can we begin creating initial mock screens. A big portion of what we look at and consider as we develop screens is the overall process. how does the user accomplish their tasks? Are there steps in the process that can be simplified or combined? are there steps that the system can do automatically to save the user time? Perhaps there are steps that can be eliminated because they have become obsolete....

After creating an initial set of mocks, we then go back and obtain feedback from stakeholders. Have we overlooked any exceptions that must be dealt with? are we capturing the right data? Displaying the right information? will the layout of any given screen and the overall workflow process facilitate the user accomplishing his/her task?

we then take that user feedback and modify the design

Once again, we return to stakeholders for more feedback on the modified design..

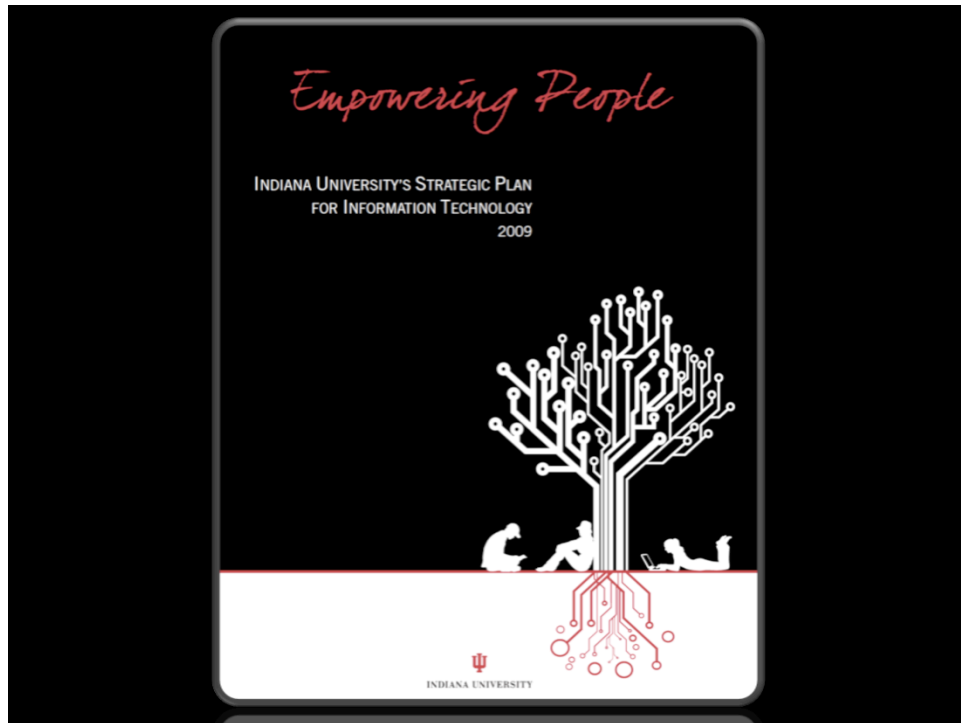
we continue to iterate through these steps until the final design is agreed upon.

With complex systems like Kualu Coeus, this is an ongoing process that repeats with each new module.

Many times we obtain stakeholder feedback by conducting a design critique...

The UXG offers a wide variety of services that can be used at various stages of the development lifecycle. A number of these are outlined in the materials provided. Many groups are not aware of all the options available or what makes the most sense based on their project, resource & time constraints, and where they are within the development of the services.

We sit down with teams and discuss their project, the pros and cons of each method and make recommendations. In most cases, even if a team comes to us with very little time (which is certainly not ideal), we are able to provide them with some sort of usability evaluation and offer some recommendations for quick wins. We also take those opportunities to educate teams about our services and encourage them to contact us early in the design/redesign phase of their future endeavors.



In the empowering people strategic plan, a 3-part strategy has been recommended to achieve leadership and distinction. Part 2 states that we can work towards this goal by:

Adopting a human-centered approach to developing and implementing IT systems and applications in order to achieve more pervasive and creative use of these systems and applications.

The UXG is in a unique position to assist teams with this directive, as this is and has been the goal of the user experience group since its inception.

- assisting with the establishment of guidelines, policies, best practices and templates for IU's web presence
- assisting teams as they create, revise, or purchase services to help ensure usability and usefulness
- developing and maintaining relationships with student bodies in order to gather requests for new services and obtaining ongoing feedback on existing services.
- creating prototypes and templates for student applications
- user evaluations of services

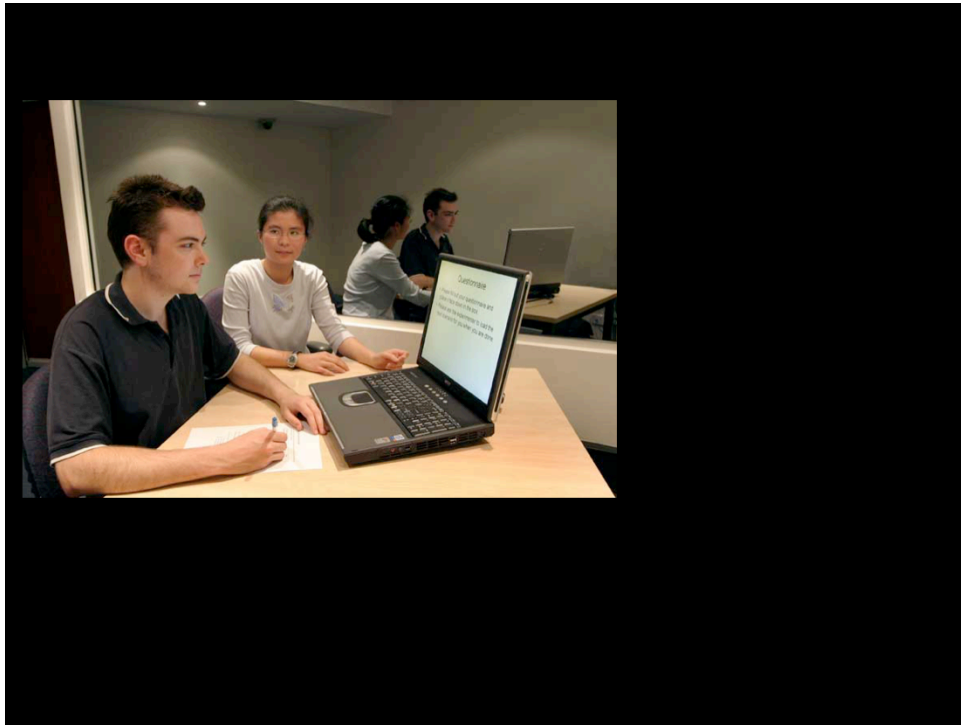
these are all areas the UXG has the expertise to handle

exploring new frontiers and providing services on different types of devices, such as mobile phones is also an arena that the UXG can assist in. obtaining feedback from students to determine what applications would be most beneficial to them on their mobile device, researching usability issues associated with mobile devices and working to create guidelines and best practices

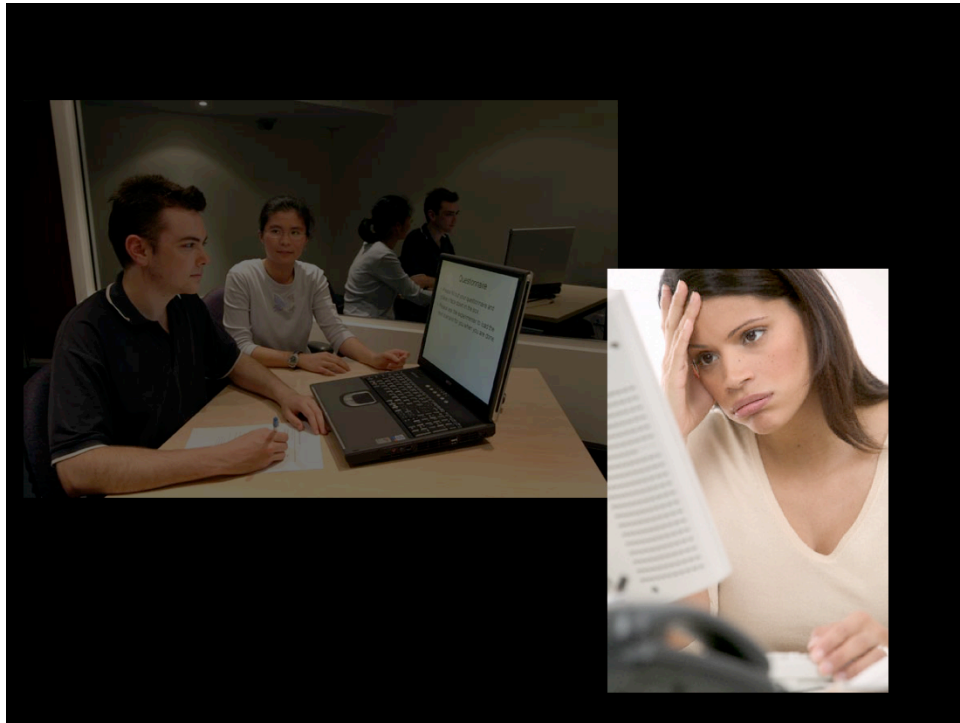
Obtaining feedback from stakeholders, striving towards services that are effective and efficient for the target audience, doing whatever possible to hide complexity while still providing very complex functionality, and addressing the various needs of diverse departments, campuses, and institutions is what we do on a daily basis while working with our clients.

We hope that the UXG will be called upon to serve in this capacity and that additional resources will be provided so we can adequately meet the growing demands of service development teams for user experience design services.

Before we go, I want to leave you with an important thought... regardless of whether teams incorporate user-centered design methods into their development lifecycle and actively obtain user feedback or not, the cold hard truth is that **all** services will go through user testing.



The question is, will it occur during development when changes can be implemented more easily and cost effectively?



or, will it only occur when our target audiences - the folks that we need to show the highest respect for - are trying to accomplish something important to them?

In which of these cases do you think the user will be most frustrated by a poor user experience, with services that do not meet their needs? (hopefully someone will say the later case)

Exactly, when we obtain feedback during development, participants feel valued, they feel like IU actually cares about them and what they need. If something doesn't work during the evaluation, the user feels minimal stress as the consequences of not completing a task will not affect them beyond the scope of the session. However, if the system is released and they have a poor user experience, they feel much more stress and frustration - perhaps they are trying to get into a class they need to graduate and can't understand the process or perhaps they are trying to submit an assignment by the deadline and are having difficulties, etc.

Regardless of the task, if the experience is bad, the user does not feel that their needs are a priority.

we want to do whatever we can to provide a positive user experience to our users, and much user frustration can be eliminated if we incorporate user-centered design that includes obtaining user feedback early and

