

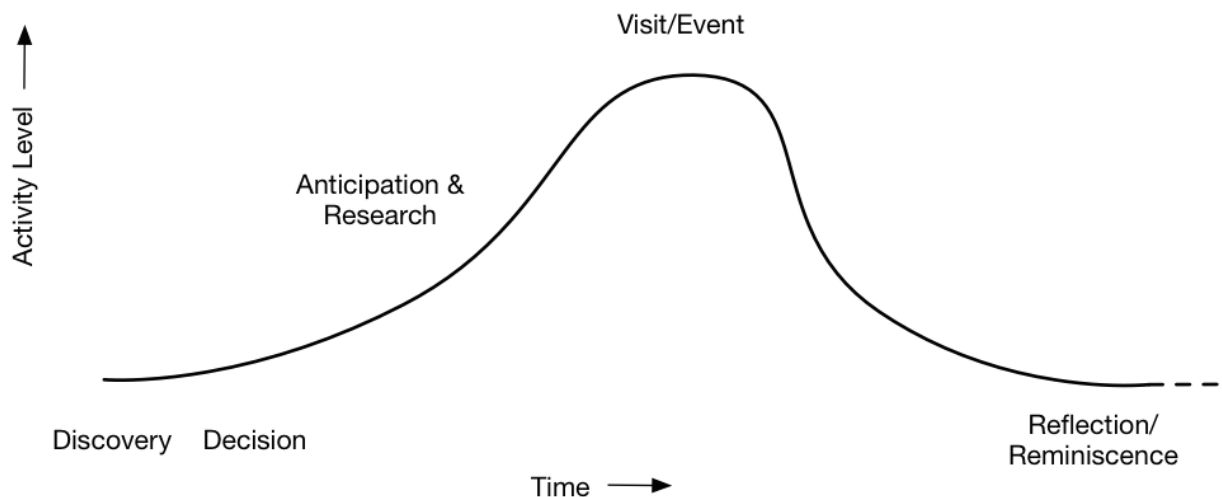
HCI 440: Introduction to User-Centered Design

Assignment 1: Integrated Experience

Note: The dropbox for this assignment will NOT be visible to you until you complete the Academic Integrity Awareness Quiz ('AI Quiz')

Overview

Over the course of this quarter, you and your team will be designing the interface and user interaction for a paired Web/mobile *integrated experience* application. An integrated experience application targets activities for which users want to: research or learn before the activity; have a virtual guide during the activity; have a way to record aspects of the activity while they are engaged in it; and, revisit their experience of the activity once it is over. Examples include: visiting a theme park (e.g., Walt Disney World); visiting a museum (e.g., the Art Institute of Chicago) visiting a geographic area as a tourist (e.g., Chicago or Glacier National Park); taking a tour (e.g., a Chicago Architecture Foundation walking tour or a more elaborate trip); or virtually anything that can be described by the following activity curve:



A school field trip to the sea- or lakeshore, or to a conservation organization like The International Wolf Center (www.wolf.org) would be a candidate for an integrated experience.

This first assignment is an individual one. It asks you to choose a particular *persistent* activity as the target of an integrated experience application. *Persistent* means that the activity is not tied to a time-limited event, and has relatively stable characteristics and information associated with it. Visiting the Art Institute of Chicago would represent a persistent activity (though it often hosts time-limited events); a festival like Taste of Chicago would not (though it occurs annually). Frequent, regularly-scheduled activities such as a Chicago Architecture Foundation walking tour would also qualify as a persistent activity.

Your individual assignment is to describe the candidate activity for an integrated experience, including a justification for its selection; identify and describe any *affordances* (read Hartson & Pyla, Ch. 20, 'Affordances Demystified') that will help the users become involved with and remain engaged with the integrated experience process across the time span of the activity curve; identify two distinct classes of users of the integrated experience application; describe a scenario for each user class; create six (6) *hand-drawn* sketches related to your ideas; identify potential problems with your activity/application choice; and describe any insights gained from the work you did on the assignment.

Note: This assignment is about *what* you wish to do for an integrated experience application, not *how* you will do it. Focus on high-level design aspects in the affordances, scenarios, sketches, and problems, not on design details. The details will be addressed in later assignments.

Assignment Content

Create a slide deck using the tool of your choice (Apple Keynote, Microsoft Powerpoint, or similar). Each content item below provides guidance on the number of slides needed for that item. Use bullet lists, where appropriate, rather than monolithic paragraphs. Feel free to be creative—include illustrations, graphics, extra sketches, animations, etc., if you feel they help inform the reader of your ideas.

- *Opening slide.* This should include your name, the class (HCI 440), date, and a title for your integrated experience application. The title need not be a catchy marketing name—for example, ‘Walt Disney World Integrated Experience Application’ is perfectly acceptable. (1 slide)
- *Integrated experience description.* Describe your selected integrated experience activity. Provide enough information so that the reader knows (a) what the activity is, (b) why it is a good candidate for an integrated experience application, and (c) how users will benefit from an integrated experience of the activity. If the activity already has some form of integrated experience available, describe how your application will improve upon or extend the experience. Be complete, but concise—the equivalent of one or two average-length paragraphs should suffice. (1-2 slides; *bullet points are OK*)
- *Affordances.* Read Hartson & Pyla, Ch. 20, ‘Affordances Demystified’. Here is the sense in which I use the term affordance: *an affordance is a relation between an object and a user, that affords the opportunity for the user to perform an action.* For example, a QR code associated with a distinctive integrated experience logo that would allow the user to get supporting information at that point in the integrated experience would be an affordance in this context.

Identify and describe any affordances that will help the users become involved with, and remain engaged with, the integrated experience process. Potential users must know that an integrated experience option is available to them; what they need to do in order to participate; what features and services are available to them before the activity; what they can do as part of the experience while performing the activity; and what features and services are available to them after the activity is over. Perhaps the most critical of these is what they can do as part of the experience while performing the activity—because of other distractions, fatigue, etc., users might forget that they can enhance their experience both during and after the activity by using the application. Be sure to identify which kind of affordance you’re referring to (1-2 slides; *bullet points are OK*)

- *Users.* Identify and briefly describe two distinct classes of users of the integrated experience application. For example, for Walt Disney World, parent/guardian and child would be suitable. These would also be appropriate for the International Wolf Center, but teachers and students would represent another option. The goal is to identify two users that have different goals, expectations, and experiences for the activity. (2 slides)
- *Scenarios.* Describe an integrated experience application scenario for each user. A scenario is a vignette describing how the user would actually use the application to enhance their experience of the activity. Focus on the user’s experience using the application to achieve a particular goal. Refer to the *Evernote* sample scenario in Module 1 as an example.

The length of each scenario narrative should be approximately one concise paragraph, similar to the *Evernote* example. If appropriate, mention any affordances that are used during the scenario. For example, “The visitor scans the ‘additional information’ QR code at the exhibit with their smartphone and...” (2 slides; *do not use bullet lists for the scenarios*)

- *Sketches.* Create a number of notational sketches for each of the scenarios. Select three of the most informative sketches for each scenario. Keep them loose and “roughly rough.” The intent is to get you thinking visually and using sketches to explore and develop your ideas, not to create polished storyboards or wireframes—these will come later.

Scan or photograph the sketches and include them in the slide deck. Label each group of sketches for a scenario (for example, 'Teacher Scenario' and 'Student Scenario'), and provide a title and an explanatory caption for each sketch. Be sure the text and sketches are clear and legible once the sketches are embedded and resized in the slide deck. It is OK to put more than one sketch on a slide, if all sketches remain clear and legible. (2-4 slides)

- *Potential problems.* Identify anything that might cause problems or go wrong with use of your application. For example, if the application allows in-app purchases of tickets or gift shop items, this could be a potential problem when children use the application. Propose how you might mitigate or eliminate the risks you identify. (1-2 slides; *bullet points are OK*)
- *Insights.* This item should be completed last, once the other items above are nearly complete or have been completed. Reflect back on the work that you have done for the assignment, and write a short description (totaling the equivalent of one or two average-sized paragraphs) of the insights you gained from the work. For example, if you wrote a scenario first and then drew some corresponding sketches, did you find that the act of drawing caused you to revise the scenario? Did thinking about potential problems cause you to adjust your vision for the application? (1 slide or more, if needed; *bullet points are OK*)
- 5 additional interactive experience ideas. These can just be bulletpoints- do not need to be expanded upon
- *Blank closing slide.* Lets the reader know they are at the end. (1 slide)

Submission Requirements

- Submitted documents must follow the order and content guidelines of the outlined in *Assignment Content*, above.
- Include your last name in the submission file filename; *e.g.*, HCI 440 A1 Integrated Experience (Jones).doc.
- Submit your assignment to the D2L dropbox by the indicated time and date.
 - *Reminder:* Assignments may be submitted up to 48 hours late with a 20% grade deduction. Assignments submitted more than 48 hours late receive no credit but will be graded as time permits.
 - **Note:** The dropbox for this assignment will NOT be visible to you until you complete the Academic Integrity Awareness Quiz ('AI Quiz').
- Documents must be in MS Powerpoint (.ppt or .pptx) or Apple Keynote (.key) formats or Adobe PDF only. Submission in any other format results in an automatic 20% grade reduction for the assignment.
- If you make a submission error, you can resubmit your assignment to D2L; the latest submission will be the one that is graded.

General Grading Criteria

For course assignments, I expect high-quality, professional documents, including proper spelling and grammar. I will use the following specific rubric to evaluate Assignment 1.

Assignment 1 Grading Rubric

Integrated experience description. Clear, complete, and concise; describes what activity is; why it is a good choice; and how it benefits users.

1 Unsatisfactory 2 Satisfactory 3 Good 4 Very Good 5 Excellent

Affordances. Identify and describe affordances for involving and engaging user in integrated experience across activity curve.

1 Unsatisfactory 2 Satisfactory 3 Good 4 Very Good 5 Excellent

Users. Identify and describe two distinct classes of users with different experience goals and expectations.

1 Unsatisfactory 2 Satisfactory 3 Good 4 Very Good 5 Excellent

Scenarios. Concisely describe an application experience scenario for each of the two users, with detail similar to example.

1 Unsatisfactory 2 Satisfactory 3 Good 4 Very Good 5 Excellent

Sketches. Hand-drawn and legible; total of six: three for each of the two scenarios; scenario groups are labeled; each sketch includes title and caption.

1 Unsatisfactory 2 Satisfactory 3 Good 4 Very Good 5 Excellent

Potential problems. Identifies anything that might cause problems or go wrong with use of application; suggests how risks can be mitigated.

1 Unsatisfactory 2 Satisfactory 3 Good 4 Very Good 5 Excellent

Insights. Reflect on the work done for the other *Assignment Content* items.

1 Unsatisfactory 2 Satisfactory 3 Good 4 Very Good 5 Excellent

All other elements of the template not specifically identified above are correct and complete; document meets relevant **Submission Requirements**, is well edited, neatly formatted, and easy to understand and interpret.

1 Unsatisfactory 2 Satisfactory 3 Good 4 Very Good 5 Excellent

Individual Criterion Descriptions:

- Excellent (5): *Greatly exceeds minimum assignment quantity or quality requirements.*
- Very good (4): *Significantly exceeds minimum assignment quantity or quality requirements.*
- Good (3): *Exceeds minimum assignment quantity or quality requirement.*
- Satisfactory (2): *Meets minimum quantity or quality assignment requirements. A **Satisfactory** rating is given when a criterion meets, but does not exceed, the **minimum** assignment quantity/quality requirements described in the Assignment Content section of this document and/or in the assignment template.*
- Unsatisfactory (1): *Does not meet minimum assignment quantity or quality requirements.*

Overall Assignment Score (a point score of 40 is the maximum):

- Excellent: 40 (normalized score: 100)
- Very good: 32 (normalized score: 90)
- Good: 24 (normalized score: 80)
- Satisfactory: 16 (normalized score: 70)
- Unsatisfactory: 15 or below
- Note: Intermediate scores, *e.g.*, a value of 28, are possible. The formula for converting the points score to a normalized (0-100 scale) score: $(1.25 * \text{points}) + 50$

Credit: Rubric adapted from material provided by Prof. Craig Miller.

Appendix: Notes from Previous Assignment 1 Workshops

- Be sure your choice of activity is consistent with the guidelines and examples described in the *Overview* section of this document. The activity must be substantial enough to warrant significant planning beforehand, a diverse and rewarding experience during the activity, and a desire to reflect on the activity experience afterward. Going shopping at a mall would not be a suitable activity choice; however, planning a weekend trip to the Mall of America (<http://www.mallofamerica.com>) would be suitable.
- Try to focus on logically-focused activity. In the past, students have found it difficult to create a rich and rewarding integrated experience for an activity that has a highly diverse number of options. For example, an integrated experience application for all the National Parks in the U.S. (or all the State Parks in Illinois or Wisconsin) is too broad. A much more effective approach to the parks problem is to focus on one or a small set of closely-related parks, for example Glacier National Park (a single park) or the Lake Michigan parks of the Wisconsin State Park system (a subset of parks that have many common elements).
- Persistence of the activity is important. It must have a clear, consistent structure over time, and must have enough complexity to warrant the effort to design and build an application. A one-time or occasional art festival would not be considered persistent, while Burning Man (<http://burningman.org>) would be.
- Choose your two different users carefully. Two radically different users—such as someone completely new to a sport and someone who is a fanatic—may not be able to be accommodated within a single integrated experience app. The features needed to satisfy the two sets of goals may be nearly disjoint, leading to what amounts to two separate apps.
- Affordances can be passive—such as the QR code example described in the *Assignment Content→Affordances* section of this document or active, such as a visual/audible/tactile indication (for example, a tone and vibration of a smartphone) that an identified point of interest is nearby.
- Assume that any technology you need to provide the integrated experience can be made available for the application. For example, if your activity is indoors where GPS is unavailable—such as a large museum—and your application needs user location information, then you can specify that strategically-placed RFID tags in the museum are needed for the application, even if they are not currently installed.
- The orientation of the your work in the assignment should be toward someone who is not familiar with the activity, rather than someone who does the activity or is involved with offering the activity. For example, pitch your work toward a venture capitalist who might be interested in funding an integrated experience application in return for sales revenue and/or a cut of purchases made through the app. You don't need to choose a particular target audience for your pitch—don't tailor it to a venture capitalist, for example—but do pitch it toward someone unfamiliar with the activity whom you wish to educate.
 - Corollary 1: Provide enough background to help someone understand the attraction of the activity and why an integrated experience app would be a great idea.
 - Corollary 2: There is no need for great detail about the activity. Provide just enough detail so that the reader feels 'warm and fuzzy' about understanding the activity, but is not an expert.
- The sketches need not tell a full story or scenario, though it is OK if they do. The sketches can represent unrelated snippets of ideas that helped you think about the problem.
- Avoid including any detailed interface design in your sketches. Keep any interface sketches—for example, in POV shots—minimal. Use the Module 1 sketch examples for guidance.