

IM 210 – Intro to Human Computer Interaction

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User Profile

- **Descriptive: Name, age, school, neighborhood:**
 - [REDACTED] just graduated from Hirsch High School in [REDACTED] a neighborhood in Chicago. He had moved here a class president and very engaged in school [REDACTED] and found himself very displaced upon moving to Chicago his Junior year of High School. He stumbled upon YouMedia at random when he decided to go downtown and check out the Sears Tower.
- **What types of afterschool activities does the student participate in?**
 - [REDACTED] is engaged in audio production; he had a hobby doing vocal recording & audio engineering in Fort Wayne, and brought it with him to Chicago & YouMedia. He got a tutorial in Garage Band (Apple software). He now is employed as a junior mentor for Garage Band. He also works with the 'Remix' spoken word / Lyricists' Loft event. Outside of YouMedia – [REDACTED], he enjoyed competitive track & field (running varsity as a freshman), student council – but upon arrival on Chicago's south side – the school was far more 'crippled'; they had to recruit an English teacher to be their track coach, no class president, etc. Now he's in college, and doesn't run as much – YouMedia has replaced his primary constructive extracurricular activities.
 - In his downtime, he hangs out w/ friends.
- **How does students find resources to help them get better at the activities they participate in?**
 - [REDACTED] finds his activities, shall we say, 'organically'. He's a very outgoing individual, enjoys just stumbling onto things – but no formal research to find things.
- **How does the student determine how to spend his afterschool time?**
 - he seems very social & guided by peers and mentors and personal interests; he naturally finds things and like minds to support his hobby of audio engineering. He also does do 'freeform' non-goal-oriented socialization, and this is primarily organized ad-hoc via telephone/sms, email, and Facebook.
- **How does the student commute?**
 - [REDACTED] primarily uses CTA, occasionally carpooling from friends.
- **How does the student find out about what is going on in the city?**
 - [REDACTED] nearly solely finds out about events informally through friends on every channel he engages in – mobile, sms, and Facebook.
- **What type of phone and data plan does the student have?**
 - [REDACTED] has a Samsung Mythic smart phone with an unlimited data plan that he pays for himself.
- **Who (friends, parents, teachers, etc) has influence on students' decisions of how to spend their free time?**
 - [REDACTED] has found a few mentors at YouMedia that appear to have large influence on his free time. It doesn't appear that his family is at all restrictive – he seems very free to do what he wants to do & follow his interests at will. His brothers still live in [REDACTED], they are older & have their own families. They are still close and keep in touch online.
- **What information do they need to know about a program in order to decide to participate in it?**
 - It must be low cost, have interest overlap, be in a good location, and occur at a frequency that fits in their life.

Portfolio Overview

Our project's goal was to create the user interface for a new information service for Chicago area youth.

The service's primary function is to inform them of extracurricular programming that they can enroll in.

To arrive at this UI, we started by interviewing a sample user of the application. The first time we met, we interviewed the user & got a sense for what they would want in a service, as well as a sense of the daily context of life in which the service would be used. We used this interview to create a user profile, capturing all we learned in a structured document.

We then met with subject again & did an observation of their interaction with existing information services, and condensed our findings into a needs statement that spanned both interviews & augmented the user profile.

From there, we made a storyboard that illustrates the context & user narrative around the key components of the system. We then took that storyboard, needs statements, and designed a paper prototype of the system – essentially a physical method of testing what will ultimately be a digital interface; but before it's digital.

We then tested this interface with our subject, noted findings, and revised the prototype once more for our final user test & demonstration.

As students, we very much enjoyed the opportunity to work on a tangible real-world problem, with real-world users. This was good practice, regardless of duration of professional exposure to HCI.

As designers of the system/service, we tried very much to address the primary glaringly lacking features of existing systems (primarily event SEO / 'findability'), adding only multi-platform event listings w/ a calendar service, and leave the rest of the needs to existing platforms like email, sms, facebook. We also decided to support both smart phones and SMS – in case our user drops his data plan.

As IT professionals, we found the paper prototyping at first to be obscure – we could've built a real digital prototype in the time it took to make a paper one. Even so, after completing & reflecting, there may indeed be some value in the practice, if just as a mechanism for creating a 'complexity penalty' after modeling & before coding – each new functionality requires physically mocking it up, not just a making new item in a feature list, use case, object model, or digital wireframe. Thus it may very well be a valuable tool in real world, between modeling/specification and development.

Needs Statements

As a vocal artist, I want to record and produce my on music, so that I can exercise my hobby independent of commercial engineers or other people.

As an artist, I want to participate in spoken word performance, so that I can share my experiences in a ritualistic social setting with my peers; and hear their experiences, and meet new people.

As a student, I want to have constructive extracurricular activities, so that I can better myself while I unwind from stresses of life.

As a curious and motivated individual, I want to find more opportunities to explore, because I am excited by self-improvement and want to help others on the path as well.

As an urban teenager, I want to find extracurricular activities beyond what is offered by my school, so that I may get out of my neighborhood and be exposed to other opportunities and new experiences.

As a spontaneous young adult, I want to find out how I can spend my time immediately; so that I don't need to plan ahead weeks, and can do so just at the spur of the moment.

As a connected yet busy individual, I want to see what is possible within existing channels I use (Facebook, ask.com) so that I don't have to sign up for yet-another-social-network.

As a confident and creative individual, I want to surround myself with other creative and motivated people so we can share our work and learn from each other.

As a web user, I want a site to behave as expected, and be error-free.

As a social network user, I want information I see to already have been filtered by my friends & community.

As a mobile user, I want responsive applications that perform functions quickly, including location based filtering.

As a teenager, information about events must include any age restrictions (alcohol / 21+).

Storyboard

Storyboard 1 - Search

The goal in this storyboard is to address what was arguably the primary deficiency with event awareness noted in our observation - that is, the extracurricular events are invisible on search engines, as well as within social networking searches (twitter, facebook).

This is a huge gap in usability that needs to be bridged in any future system.

The storyboard will demonstrate the various methods we should support in search.

The needs statement this covers are:

As a student, I want to have constructive extracurricular activities, so that I can better myself while I unwind from stresses of life.

As a curious and motivated individual, I want to find more opportunities to explore, because I am excited by self-improvement and want to help others on the path as well.

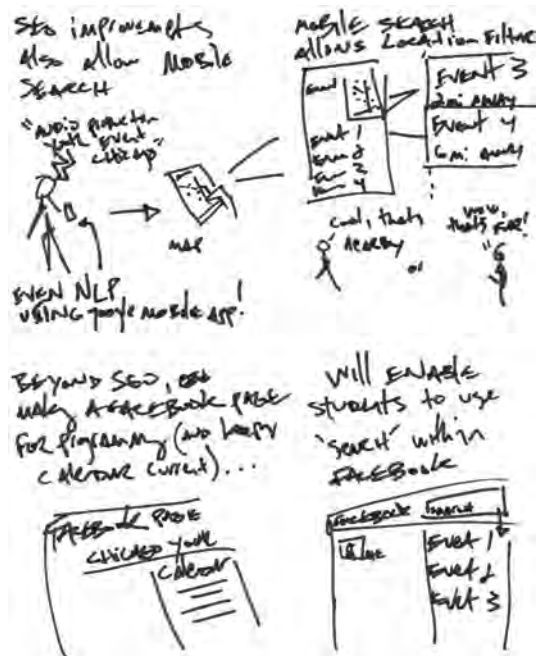
As an urban teenager, I want to find extracurricular activities beyond what is offered by my school, so that I may get out of my neighborhood and be exposed to other opportunities and new experiences.

As a spontaneous young adult, I want to find out how I can spend my time immediately; so that I don't need to plan ahead weeks, and can do so just at the spur of the moment.

As a connected yet busy individual, I want to see what is possible within existing channels I use (FaceBook, ask.com) so that I don't have to sign up for yet-another-social-network.

As a mobile user, I want responsive applications that perform functions quickly, including location-based filtering.

As a web user, I want to be able to find extracurricular events via search, either on search engines or social networking sites.



Storyboard 2 - Social networking - browsing, discovery, and notification of events.

The goal in this storyboard is to move beyond search, and show how to utilize existing social networking sites (in this case, facebook & twitter) to facilitate auto-notification of events of interest, as filtered by friends & community. This way the events & opportunities overlay automatically onto their daily life, reducing the barrier of entry to participating in youth programming.

The additional primary needs statement this covers are:

As a spontaneous young adult, I want to find out how I can spend my time immediately, so that I don't need to plan ahead weeks, and can do so just at the spur of the moment.

As a connected yet busy individual, I want to see what is possible within existing channels I use (Facebook, ask.com) so that I don't have to sign up for yet-another-social-network.

As a social network user, I want information I see to already have been filtered by my friends & community.

As a mobile user, I want responsive applications that perform functions quickly.

As a teenager, information about events must include any age restrictions (alcohol / 21+).

As a web user, I want to be able to find extracurricular events via search, either on search engines or social networking sites.

THE GOAL BEING to get the student to an event
 OF Interest ON TIME

EASY (using tools they already use)
 So they will do it all Again!
 THE END.



AND BECAUSE OF THE SOCIAL NETWORK PROFILE,



EVENTS CAN BE FILTERED BY AGE & PREFERENCES



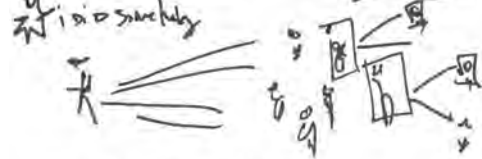
AND UNLOCK BADGES FOR ATTENDING EVENTS



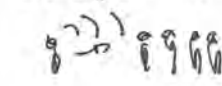
AND UPLOAD WORK (WITH, MUSIC, ETC)



THESE ACTIONS ARE THEN AMPLIFIED



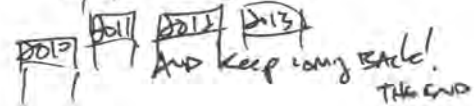
INCREASING THE ATTENDANCE AND ATTITUDE & PARTICIPATION



IN AN UNUSUAL MANNER



SMS, EMAIL, APP



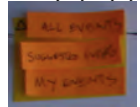
Prototype

Task prompt 1 – smartphone search

User may easily filter event list via All Events, recommended (based on profile), or 'my events' (which they've already registered for), as well as a keyword search.



Search query displayed above, other drop downs for filter:

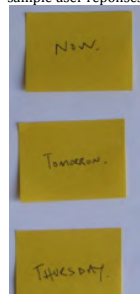


Task prompt 2 – sms search

User sends NLP date/time to the service # to get an event list response. IE - 'tomorrow', 'now', 'next Tuesday', 'this weekend'.

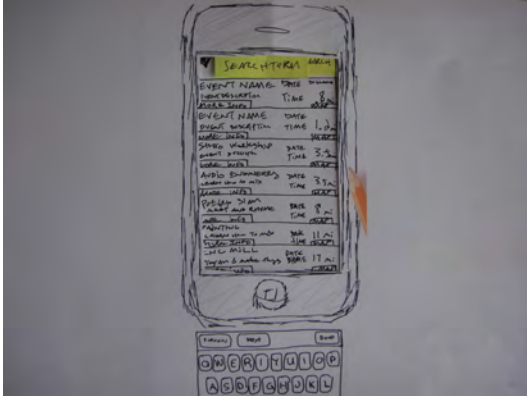


sample user responses:



Task prompt 3 – smartphone event list (with location)

The filtered event list is the home screen of the service. The event listing is ordered by date, and also displays distance – either from the phone's location, or from their profile address (if location service is not available or not working).

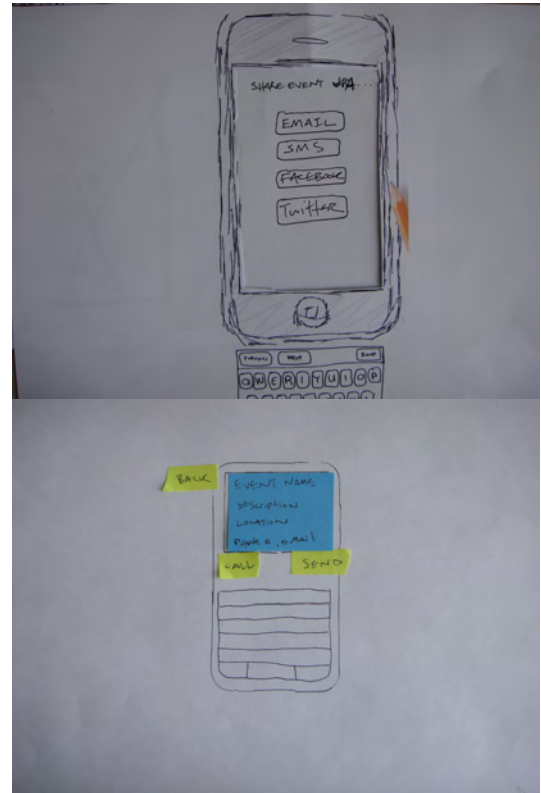


Task prompt 4 – sharing event (both sms & smartphone)

Sharing is important to socialize the events.

Sharing through existing mechanisms / ways the user already shares other things is critical. To that end, they may share event information via facebook, twitter, sms, mms, or email – on either smart phones or feature phones.

The smartphone share is 'overlay/lightbox' dialog on top of selected event. The feature phone share leverages existing functionality in phone (email, sms, mms) to allow sharing of event information. Twitter and facebook both support sms, again leveraging existing platforms and behaviors.



Design Critique

Our prototype reflects the design of our system rather well. That is, our system leverages existing external platforms and services for a large part of the peripheral functionality in order to concentrate on fixing the deficiencies of existing systems.

In short, no existing system showed the program's events – not facebook search, google or ask or yahoo search – the events were basically invisible to the world.

By zooming in on this oversight, enabling finding, registration, and sharing of events as easily as possible, our prototype and service was able to afford almost all of our user's needs with a very simple UI.

While we believe we achieved this goal; it's possible some decisions we made are too abbreviated. For example, it's possible that more of a 'social graph' would need to exist than our current system allows for. Current system's social graph is based solely on event registration, and 'interest keywords' in the user profile. Manual group editing was forgone, deferring to implicit event-and-interest based grouping. This decision may or may not be viable in production – while we think it may well be viable, it was hard to test with a single user, as it's a multi-user function.

User Testing Reflection

We learned from user testing that lengthy form-entry is a barrier to use, and thus preferred to have a single profile that has as little information as is necessary for the service to function.

We also confirmed in testing our design that leverages social graphs from Facebook and even blogs – and improved it, by pulling in interest keywords from linked profiles.

We also learned of the potential uselessness of some of the information in our profile (such as school address) – yet we left it in there, though made certain it's optional; as at least one address – either home or school – must ideally be provided to allow the default location based aspect of the service.

We also learned that SMS was indeed capable of reproducing the core functionality of the system – user will miss out on pictures and location functionality, but the primary goal of event finding, registration, and sharing survives intact.