



Creative Communities

designing to invite participation
in the creative process

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Abstract

How do you define creativity?

Creativity is not defined by the best looking poster or slickest packaging. Creativity is the capacity to identify a problem and then move quickly to deliver a solution. I believe many people have this creative capacity within them, but not everyone is in a place to express it. My role as designer is to create conditions that invite people to explore this creative aspect of themselves.

Over the course of my studies I have designed and built several systems that attempt to bring people together to create and share something. Each case study explores new ways that groups or communities can bridge gaps between digital and physical experiences. I am particularly interested in systems that allow a community of users to make their own creative decisions and draw their own conclusions.

Why?

In order to move forward as a society, we must forever become more specialized. Take a job title from another generation, “Computer Programmer”. This industry has seen such explosive growth that the original title no longer conveys enough meaning to include it in a job posting. “Programmer” has evolved into modern job titles like: “Lead UX Consultant”, “SEO Specialist”, and “iPhone Application Developer”.

As we become more specialized, we need to find new ways of connecting. The human being is a social animal after all. I am interested in using dynamic media to create a shared experience for our specialized world. The kind of experiences a Physical Therapist and an iPhone Application Developer can share are the same things our grandparents did: a song, a conversation, a meal.



2.0.0 Introduction

2.1.0 Life before DMI

During my first go around at college, I attended the Rochester Institute of Technology studying to become an engineer. I had selected the very specific field of *undeclared* to begin my engineering studies. During the first month of classes, I discovered that calculus and chemistry were not areas I wanted to pursue for the rest of my life. That same month, I met many other students and saw the work they were doing in their major classes. One student in particular was taking blue styrofoam, attaching several pieces together with double sided tape to form a cube, and then sculpting the shape. “What are you making?” I had to ask one night.



“Firetruck” came the response. That was it, I had made the decision right then and there. The next day I took my high school art portfolio over to the Industrial Design department and started my design education the next quarter.

I would describe my college education experiences as average. The coursework and professors were focused on giving students the technical skills they would need to compete with other students graduating across the country. Lots of sketching and rendering classes, art history, 3d modeling, and the requisite

suite of design software. On my own initiative I started learning a new program called Flash 4. Some other students had suggested checking it out as a possibility for quickly creating use case scenarios for studio projects. Flash had some powerful animation capabilities, and some very simple programmatic syntax — it was easy to make things stop and go.

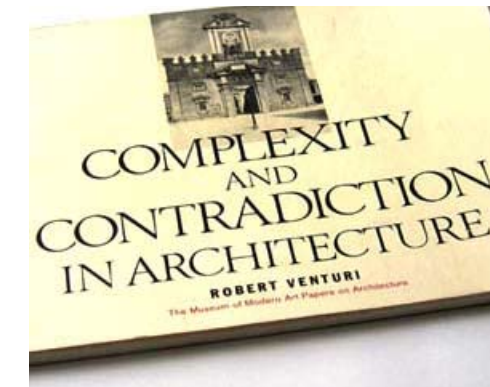
The core industrial design coursework was missing any sort of underlying design philosophy class. I wanted an answer to more fundamental design questions. I know this shape should be a



left: Selected works from R.I.T.

above: Robert Venturi

below: Required reading for prof. Weatherald’s class



curve, but why? The answer “because it looks good” was no longer good enough. That’s when I took a few elective architecture classes with professor Houghton Weatherald. These architecture classes really opened my eyes. I found the second class outlining Robert Venturi’s theories particularly enlightening. That quarter it almost felt like going to church. Each class was an hour long and every student sat silently listening to an impassioned sermon by an inspiring orator. Here, senior year, for the first time, we were being given reasons as to why designers make the decisions they make.

The class got me to start thinking about the role that design would play in my life after college. Did I want to design staplers and toothbrushes and tape dispensers that looked like iMacs for the rest of my life? Would someone buy an object I created, enjoy it briefly and then dispose of it? Finally, what were my options, graduating in the poor economic climate of 2001?

What I found, was the opportunity to do a little production work with Flash, the program I had been tinkering around with during my studies. A company called VPG Integrated Media hired me to do junior level production work. For the most part the work involved creating educational materials. I liked that I was creating things that educators, health care providers, and language specialists of tomorrow would eventually use.

I usually put animations together, but sometimes I got a chance to design user interfaces. I had never done this before, and to me the aspect of information design, asking myself what information is important for a user to see, was much more in line with what I could see myself doing for a career. I certainly preferred it to creating illustrations, or presenting dry mathematical graphs.



above: Animations created for VPG Integrated Media.

It was quite a change to work for a client other than myself, as I was no longer the one making creative decisions. For awhile, it was good for me to be there, gaining experience, but ultimately I wanted to do more interface design, and to do that, I needed to know how to program. I knew I would never get any real development experience by staying at VPG, so I had another choice to make.

Deciding that I wanted to become more involved with programming led me to take a junior developer role in the Open Source Group underneath the Information Technology Division of the Commonwealth of Massachusetts. Before I started there, I didn't really understand what "open source" really meant. I just thought it had something to do with free software. I was blown away by the concept. I was fascinated that people from all over the world were donating their time and talent to develop the tools that they needed, train others in the use of those tools, and finally to give them away for free! This is a very exciting concept. I was ready to get to work.

I found motivation in the higher goals of the open source movement, as most projects at the State did not contain the most scintillating content. Trying to set up an email system springs immediately to mind. But for the most part, I enjoyed my time there. I was getting the hang of several technologies that were new to me, including using the command line, programming language, content management systems and relational databases. Many of these things didn't initially make much sense as abstract concepts, but seeing them in action really opened my eyes to the possible applications of these technologies.

After a while, however, I began to feel like this was not something I wanted to be doing for the rest of my life either. I knew that I loved making websites, but it couldn't be just that. Making them work was one thing, but designing them to

```

302     $paging = new pagination; // initialize the class.
303     $paging->setperpage($this->pages); // Set amount of items to see on a page.
304     $paging->setwrapper(array('<div id="pagelist">', '</div>')); // Pass in HTML to wrap our links with.
305     $paging->setsqlquery($this->sql); // PASS OUR QUERY BEFORE WE LIMIT IT.
306     $paging->showpaging();
307 }
308 ?>
309
310 <table <?php echo $this->tableAttr; ?>
311 <tr>
312 <?php
313 // ----- TABLE HEADERS -----
314 // Display the delete column.
315 if ($this->deletecol)
316     echo '<th align="'. $this->deleteAttr['align']. '" width="'. $this->deleteAttr['width']. '">'. $this->deleteAttr['name']. '</th>';
317
318 // Display our other columns.
319 foreach ($this->columns as $column)
320     echo '<th align="'. $column[3]. '" width="'. $column[2]. '"><a href="'. $this->buildOrderURL($column[0]). '">'. $column[1]. $this->getDirImg($column[0]). '</th>';
321
322 // Display the image column.
323 if ($this->imagecol)
324     echo '<th align="'. $this->imagecol[2]. '" width="'. $this->imagecol[1]. '">'. $this->imagecol[0]. '</th>';
325
326 // Display the edit column.
327 if ($this->editcol)
328     echo '<th align="'. $this->editAttr['align']. '" width="'. $this->editAttr['width']. '">'. $this->editAttr['name']. '</th>';
329
330 ?>

```

above: PHP code written at the State.

opposite: Animations created for Vistas Higher Learning.

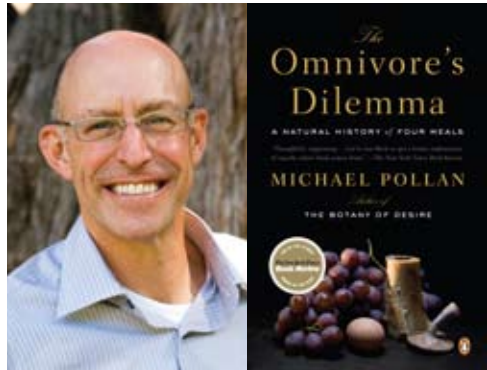
work well was another, and unfortunately, there was no room for design work at the State. I discovered that I needed to incorporate some form of visual design to be happy in whatever I would do next.

2.2.0 Goals for time at DMI

When I first applied to the Dynamic Media Institute at MassArt, I was interested in getting back to my design roots. I was hungry to get back into visual design after six years of production and

development work. I had never taken a class in graphic design before, and I was hoping to get a bit more exposure to that field. I was also curious to try my hand at teaching. Although I had never taught before, for some reason it seemed like it could be for me.

Expecting to learn some fundamentals of visual design, and continue with more involved development work, I was shocked to receive my first assignment at the DMI. A vial of vanilla was placed in front of me and I was asked to respond to it. Huh? Did



I quit my job and alter my life for this? Within the first five minutes of starting the program, I was already questioning my reasons for coming here, and reevaluating what I hoped to achieve. As the creation of this document shows, I found it sufficiently interesting.

2.3.0 Inspirations

I, like everyone else, brought my own interests with me to the DMI. Looking back, I notice some obvious industrial design influences, lots of visual design, and even a few programmatic concepts. The big takeaway point here is that people can really interact with the following objects. They could fit into someone's life in a meaningful way. Each product takes the users experience into consideration. Whether that product is for daily use, like the backpack, or an installation piece built to raise awareness of some topic.

The book Omnivore's Dilemma, and it's author Michael Pollan, got me thinking about where our food comes from in a way that I had never considered. The excellent writing and persuasive arguments are hard to ignore. This book even got me to try to make a small change in my diet, simply eat a little less meat. This is more difficult than you might think!

I have also been interested in seeing what new developments there are in the Smart, or Eco Design area. These products cross good design sensibilities with environmentally friendly solutions. While I think many of these function well as concepts, I'm not convinced that most of these items will use less energy in the long run. Once manufacturing and disposal costs are taken into consideration.



top:
Clock of the Long Now
above:
Wired magazine logo
right:
Kevin Kelly
opposite top:
Michael Pollan
Omnivore's Dillema
opposite center:
Voltaic solar bags
Voltaic logo
opposite bottom:
Casulo furniture system
Sebastian Mühlhäuser & Marcel Krings

Lastly, ever since I became aware of his story, I've thought Keven Kelly has led an extraordinary life. Instead of attending college, he spent those years wandering around Asia. When he returned to the States, he rode his bike across the country and then founded Wired magazine.

Kelly is also involved in an interesting project with Brian Eno (and others) called, The Long Now Foundation. It's a non-profit group dedicated to fostering long-term responsibility. They have finished building a clock designed to last for 10,000 years. I really love how this project re-interprets a common object we all interact with every day. How does the object change when you place it in this new context? This is the work that I wanted to be doing at the DMI.

2.4.0 Methodology

In terms of my case studies, I really had no one particular procedure or set of procedures that led me to investigate a certain topic. When presented with an assignment, I relied strongly on the influences and inspirations listed above to help me choose a direction to move in.

My interest lies not in controlling everything, but in engaging contributors to come together and create content. Ideally, this would be done in a way where no contribution is perceived as too great or too small. My case studies are also about paying attention, and being in the moment. Designing a connection that brings people together in the moment.

What am I giving up by allowing others to contribute content? What am I gaining in return? How do I know where to impose my will as a designer? These are the kinds of questions I am interested in asking with my thesis.

3.0.0

Common Themes

When it came time to pick a thesis direction, I was stumped. I didn't want to spend a year exploring the possibilities of sound, or anything else for that matter. I didn't know what I wanted. I decided to take an "I'll know it when I see it" approach to my thesis topic. I created several smaller projects and, with the help of my professors, reverse engineered my thesis based the patterns that emerged. There were three main topics, to my way of seeing. The first, community participation, was the most important. Any design only becomes truly great when people really use it. Second, it is important to me to turn individual actions into group action. When many people come together in service of a common goal, a community is formed. Lastly, I would like to try and build these communities around pre-existing information. I find the challenge of repackaging a known quantity appealing.

3.1.0 Community Participation

The biggest common theme running throughout my work is how to bring members of a community together. But first I must ask the questions, what is a community? How do communities form? Why do they form?

What defines a community? A community, at its simplest is more than one person, a group. That group may be defined by its geographic location, identity, race, gender, socio-economic status, hobbies or interests. Communities may even be dynamic in nature, no longer are they restricted by physical borders, they can form



above: At left, architecture designed for anywhere shows no community presence. At right, architecture of a place inspires a community presence.

spontaneously and exist temporarily. An interesting aspect of community as it relates to dynamic media, is how the physical location of those relationships are no longer relevant. With the introduction of the internet, you are free to pick and choose your neighbors based on common interests. You are no longer restricted to physically proximate relationships. You are no longer forced to interact with those you do not like.

How do communities form? Permanently or temporarily, what is the process by which people come together to be recognized

as a cohesive whole? Some communities, such as those defined by ethnicity, gender, or age are chosen for us. Others, like fans of sports teams, religious congregations, or tastes in music, are communities we decide to join. Chosen or not, every community is recognized as a separate entity by the people around it. In other words it takes non-members to legitimize the community. For example, the US fought a war in order to declare independence from Britain, formally establishing a community of Americans.



above: Amish Friendship Bread starter

below: The final product



Why do communities form? Why does a door open? Because that's what it's designed to do. In order to survive culturally and literally humans need to form into groups. An example of a survival-based community is early hunting parties. One member might distract the prey while a second member makes the kill. Hunting in groups also provides the benefit of redundancy. If one party member is injured, the others can still achieve success. Regardless of the various reasons for why communities form, the basic result is to complete a collective task. By coming together as a community, members can distribute work among many hands, and reap a larger reward. This requires members to be concerned with not only their own well being, but the well being of the whole community. In other words, to recognize the other as part of the self.

In order to get people to work together, we need to build upon the core theme of community participation. How do these communities of people build consensus and make decisions? Consider the example of a meteorologist's weather forecast. The community of people who tune in share a common interest in staying dry. These people have made a decision to trust their source of information, a local weather forecaster. Crucially, they alter their day based on the information received, by carrying an umbrella with them. In order to maintain this system, the most important factor is trust. Why do people choose a particular meteorologist over another? Sure, they may like the personality of the presenter, but the trusting the accuracy of the information is what keeps them coming back. If the ultimate goal is to keep people as active participants in that community (by watching the forecasts), trust defines a successful system.

Amish Friendship Bread is a great example of an object that invites community participation. Known as the chain letter of baking, Friendship Bread is really more of a cake than a bread. It doesn't even seem to be Amish either! It is a sourdough

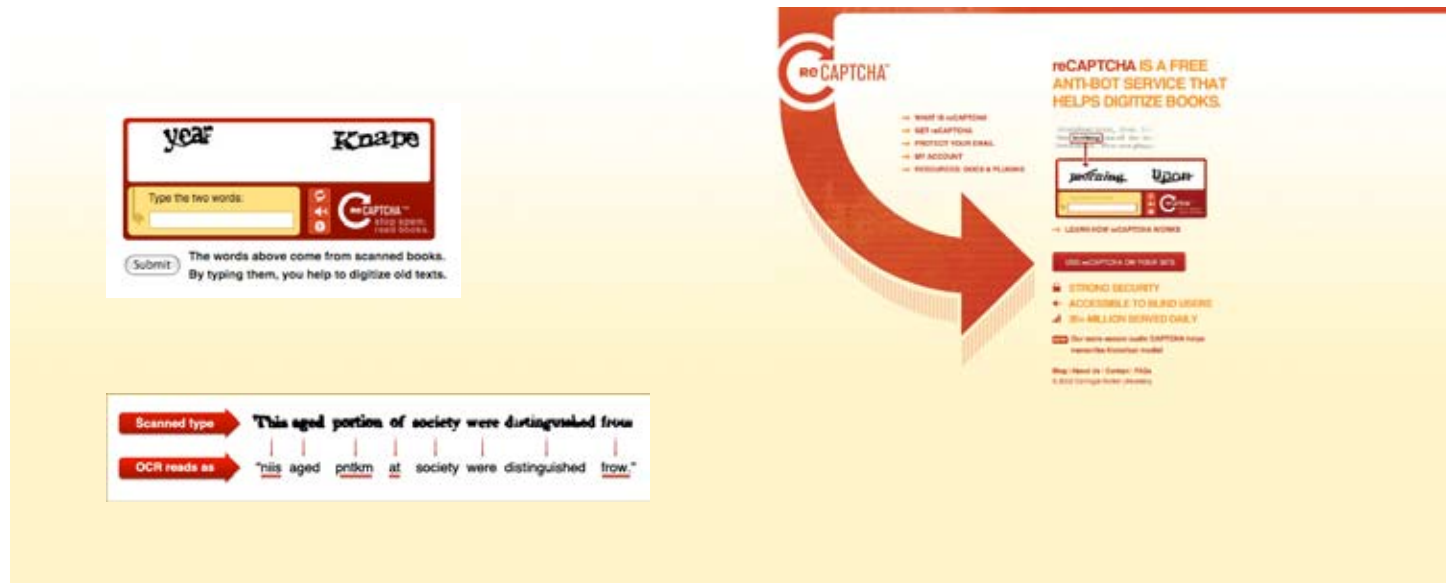


above: Showing a dynamic community forming around the desire to stay dry. One to many relationship.

starter handed from one person to the next in little plastic baggies. The bread itself is not what I find most interesting, but rather the way it's distributed. It isn't sold at the store. No company manufactures the stuff. The only way to come across Friendship Bread, is to be an involved member of your local community. For several days after the bread is baked, the mixture is incubating. While this is happening the recipient becomes the distributor, as they find others to give away the extra portions to. The instructions provided with each bag given ask the individual to make far more batter than necessary. What



happens with all the extra? It is in turn given away to three more people, further extending the community of Amish Friendship Bread bakers. The Friendship Bread raises the topic of trust, as the content being exchanged in this case is designed to be consumed. The receiver of the starter mixture must know the giver well enough to trust them somewhat.



above: reCAPTCHA developed by Luis von Ahn and School of Computer Science at Carnegie Mellon University.

3.2.0 Turning individual actions into group action

I am interested in systems that ask how the input of one person can affect many people. In older times this may have been the town crier, or an announcer on the radio. Now it could be anything from a nationally syndicated baseball game to someone podcasting the latest movie review. The point is making information more accessible, or presenting it in a new way that makes the viewer re-consider this information from a different point of view.

There are plenty of problems today that are too big for any one person to solve. This could be any modern problem from Global Warming to developing the perfect word processor. One method of overcoming seemingly insurmountable problems like these, is to break the problem up into smaller pieces and attack it that way. This is the basic concept behind crowdsourcing. When a large problem is crowdsourced, the tasks may be broken down so far that each only takes a few seconds to complete.

Think of your computer; maybe you use it to write emails, listen to music, or browse the web. More often than not, these tasks

do not use the full power of your machine. You can download a program called GenePalette that applies the concept of crowdsourcing to computers. It detects periods of inactivity on your system, and makes use of those extra cycles to crunch numbers to help decode the human genome. This is all done passively in the background, without human involvement.

A great example of human crowdsourcing is a type of technology called recaptcha. Briefly, a captcha is a simple test used to decide if a user is a human or a computer. You've probably seen those little boxes with blurry words floating above them? To prevent spam, a user types a blurry word into the box, thus proving they are a human. A recaptcha is specific type of free captcha service that helps to digitize books, newspapers and old time radio shows. Here is how recaptcha.net describes their service:

“About 200 million CAPTCHAs are solved by humans around the world every day. In each case, roughly ten seconds of human time are being spent. Individually, that’s not a lot of time, but in aggregate these little puzzles consume more than 150,000 hours of work each day. What if we could make positive use of this human effort? reCAPTCHA does exactly that by channeling the effort spent solving CAPTCHAs online into ‘reading’ books.”

Recaptchas are a great fit for this common theme because they require active human participation. You have to use your brain to figure out what words those blurry symbols are, type them into the box, and presto! You can see your requested content, and you helped to preserve a part of human history. The best part is that the code is all open source software!



above:
Corporate Fallout Detector by James Patten

3.3.0 Raising awareness of existing information

There is a statistic that says we absorb more information in a day than someone living in the time of Gutenberg would have come across during their entire life. I don't know who said it, or even if it's true, but I believe it! Think about only how many ads we see on an average day. Thousands. Nowadays, we need to filter out so much noise to get at the good stuff. That is why I am interested in exploring the presentation, or re-packaging of existing information. This is information that exists, but may be difficult for people to see, process, or understand. Most information today falls into this category. We're simply too busy to examine it all.

In order to get people to pay attention to your content, you have to design an experience that will shake them out of their routine. Give people the unexpected to get them to focus on your content. There are of course a number of ways to accomplish this. You could write an article, or design an informational poster. These are all good solutions, but they are also quite passive. I believe in order to get existing information noticed, a more active solution is needed. Something people can walk up to and interact with. Something that allows people to explore. Something that lets users engage with the existing information, while learning the rules of the system.

James Patten, an MIT Media Lab PhD. graduate created a perfect example of a system that raises the awareness of existing information. Here is a snippet from his project description:

“The Corporate Fallout Detector scans barcodes off of consumer products, and makes a clicking noise based on the environmental or ethical record (selectable via the “sensitivity” switch) of the manufacturer. It explores issues of

corporate accountability and individual choice. Due to increasingly complex global supply chains, a single product we buy may contain parts made by various companies all over the world. We may agree with the business practices of some of these companies, while not with others.”

The detector is a great solution that raises awareness of existing information. All the information that Mr. Patten's algorithm acts upon is stored in databases, and available to the public for free or a low cost. The two main problems with these information streams were their presentation and their isolation from each other. Only a dedicated individual would put in the time necessary to take away meaning from those spreadsheets. By combining those databases together, and adding a bit of spectacle creates an experience that stays with the viewer long after they leave the grocery store.

4.1.0 The Rhizome

Gilles Deleuze and Félix Guattari - "A Thousand Plateaus"

In "A Thousand Plateaus", Deleuze and Guattari discuss the concept of a rhizome. A rhizome is typically associated with botanical terminology; defining a plant stem that sends out roots from any of its nodes. Rhizomes can include bermuda grass, irises, or ginger, and generally grow underground. A rhizomic system doesn't have to be a plant, it could just as easily be some new idea or some ancient cultural custom. The authors expand the concept of the rhizome to describe a particular form of group dynamics, writing:



4.0.0

Theoretical Research

“A rhizome community is composed of rhizome individual or family nodes—participants who do not depend on the community for their basic survival, nor participants who expect to benefit from the community without contribution.”

In the case of rhizomic plants, you can remove a small section, replant it somewhere else, and it will thrive. The metaphor of rhizomic communities employs a similar idea of replication. In these communities emphasis is shifted away from the monolithic, and placed more on the formula that defines that communities ethos. For example: when a great tuba player moves to a new city, their presence may rhizomically develop into a new tuba community. It’s more about replicating the dynamics of the original idea, and less about the specific location. Nonhierarchical systems like these are also discussed by Deleuze and Guattari:



above: A rhizomic ginger root.

“unlike trees or their roots, the rhizome connects any point to any other point [...] In contrast to centered (even polycentric) systems with hierarchical modes of communication and preestablished paths, the rhizome is an acentered, nonhierarchical, nonsignifying system [...] It is composed not of units but of dimensions, or rather directions in motion [...] A rhizome has no beginning or end; it is always in the middle, between things, interbeing, intermezzo.”

My critical sound project is an example of a rhizomic community. It’s a group of people who come together to bicycle for a brief period of time, in an intermediate space. The configuration of members is never static—the next meeting will invariably have different people, but always the same goals and ideals. Much like the rhizome theory, the critical sound community has no leader or followers; individuals benefit by collectively contributing their manpower and presence. Additionally, the critical sound community can thrive anywhere, and is not confined to a

particular city or route taken. Could critical sound exist as effectively outside of the rhizomic framework? It’s difficult to say, but i feel the rhizomic model has really powerful implications for social action. Rhizomic communities lack the power struggles that other organizational models have, because no member benefits by leading the group. In this way, rhizomic communities such as critical sound avoid the many pitfalls that waste precious time and resources in other social efforts.

4.2.0 Virtual Communities

Howard Rheingold - “Virtual Communities”

Howard Rheingold defines virtual communities as, “social aggregations that emerge from the Net when enough people carry on those public discussions long enough, with sufficient human feeling, to form webs of personal relationships in cyberspace.” Rheingold proposes that virtual communities allow modern humans to “rediscover the power of cooperation,” in a “merger of knowledge capital, social capital, and communion.” In a similar fashion, the Garden City project creates a virtual community of urban gardeners through the sharing of information and experiences. Garden City reconfigures the practice of gardening itself, by shifting gardeners conversations from the fence post to a message board post. Gardeners are no longer restricted to asking questions of neighbors, or keeping their success and failures a relative secret. The 12 Monkeys / La Jeteé project reflects Rhinegold’s merger as well, allowing the collective knowledge from all fans to be discussed and aggregated in one spot.

Another important feature of virtual communities Rhinegold points out is their variety, and use as a platform for social change:

“There is no such thing as a single, monolithic, online subculture; it’s more like an ecosystem of subcultures, some frivolous, others serious [...] activists and educational reformers are using [virtual communities] as a political tool.”

Although the concept behind Garden City is neither liberal or conservative, it does of course speak to a certain subculture. Raising awareness of how food gets to the table is an important issue in our time.

Garden City might be more likely to attract users who would otherwise feel embarrassed or shy about their lack of experience when it comes to growing food. Someone coming from a background of limited experience is more likely to join an online community than to attend a group meet-up or class (which would likely cost money as well). Because of its accessibility to novice gardeners, the message of sustainability and DIY ethos that Garden City espouses reaches a larger audience and gains more political power.

“While we’ve been gaining new technologies, we’ve been losing our sense of community, in many places in the world, and in most cases the technologies have precipitated that loss. But this does not make an effective argument against the premise that people can use computers to cooperate in new ways.”

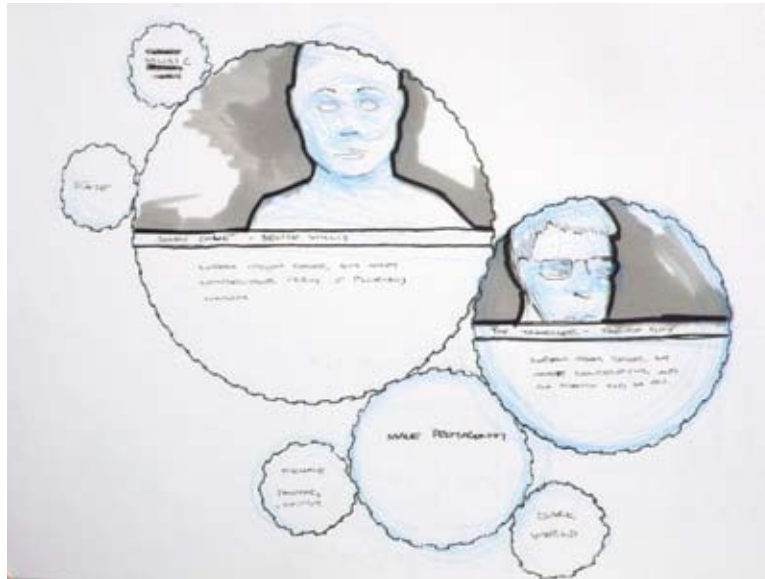
This final quote pertaining to Rhinegold’s concept of virtual communities speaks to the core of my thesis concept. Many of us view the computer as an isolating tool. Most computers we interact with are basically terminals, designed to be used by one person. I view this loss of communication with mixed feelings. By bringing

computers to the foreground of our lives, some of our relationships get pushed to the back. We lose some of our more recently created customs and culture. At the same time I believe these new technologies, if designed well, can replace or enhance everything they make obsolete.

5.0.0 Case Studies

5.1.0 12 Monkeys / La Jetée

The goal of this project, was to compare the newer Terry Gilliam film *12 Monkeys* to *La Jetée*, the older French film that provided inspiration. The films together pose an interesting challenge, as there are just as many common elements as there are divergent ones. The plot of *12 Monkeys* is obviously derived from *La Jetée*, however the look and feel of each film couldn't be more different. My given objective was to design a way to showcase all the common and differing traits displayed throughout the two films.



above: A final, confusing, rendering of the gear concept.

I'm not sure if this project fully met the stated requirements for the assignment. We were asked to compare the two films, but with my solution, users can't do any visual comparisons between the two films. They can only create a record of observed and agreed upon common themes.

There was a problem with the final visualization, which, unfortunately, can not be shown here due to a hard drive crash. I had drawn the gears touching in confusing ways, with the gears representing *La Jetée* and *12 Monkeys* touching at certain

Theme: Male Lead

Relates to:

- | | | |
|---------------|------------------------|-----------------|
| Both | 12 Monkeys | La Jetée |
| • Female Lead | • Fellow Time Traveler | • Museum |
| • Scientists | • Mental Patient | • The Future |
| • Young Boy | • Mental Institution | |
| • Airport | • Theatre | |
| • Underground | • Black Tie Event | |
| • Prison | • Cassandra | |
| • Dark World | • Fate | |

Theme: Female Lead

Relates to:

- | | | |
|----------------------|----------------------------|-----------------|
| Both | 12 Monkeys | La Jetée |
| • Male Lead | • Mental Patient | • Museum |
| • Airport | • Father of Mental Patient | |
| • Light World | • Doomsday Man | |
| • Question of Sanity | • Mental Institution | |
| | • Theatre | |
| | • Cassandra | |
| | • Free Will | |

Theme: Time Travel

Relates to:

- | | | |
|----------------------|-------------------|-----------------|
| Both | 12 Monkeys | La Jetée |
| • Male Lead | | • The Future |
| • Scientists | | |
| • Apocalypse | | |
| • Paradox | | |
| • Question of Sanity | | |
| • Salvation | | |

Theme: Underground

Relates to:

- | | | |
|--------------|-------------------|-----------------|
| Both | 12 Monkeys | La Jetée |
| • Male Lead | | |
| • Scientists | | |
| • Prison | | |
| • Dark World | | |

Theme: Scientists

Relates to:

- | | | |
|-----------------|------------------------|-----------------|
| Both | 12 Monkeys | La Jetée |
| • Male Lead | • Fellow Time Traveler | |
| • Underground | • Jose | |
| • Dark World | | |
| • Apocalypse | | |
| • Time Travel | | |
| • Follow Orders | | |
| • Airport | | |

Theme: The Future

Relates to:

- | | | |
|---------------|-------------------|-----------------|
| Both | 12 Monkeys | La Jetée |
| • Male Lead | | |
| • Time Travel | | |
| • Salvation | | |

above: Showing the database the information would be drawn from.

points. This created confusion for the audience, and was not my intention. All that remains of the project is the database, shown above. Hopefully, this can give you some idea of how the themes would relate to the films and one another as well. For example, you can see *12 Monkeys* has a lot more content there, but also there is the "Museum" in *La Jetée* that did not make its way to *12 Monkeys*. You can quickly see that the "Male Lead" is featured quite prominently in both films, simply from the large amount of connections shown.

I do think it's interesting that the final result was in line with my thesis direction. First in the way that the *La Jetée / 12 Monkeys* site fosters community engagement with the subject matter. This project is similar to other projects on the point of community building. Many of my projects promote a democratic exchange of ideas and knowledge in a communal manner. In these cases this places the burden of education on the site users. As a designer, it is my job to provide a structure, and then get out of the way of the educational process.



above: Testing out the Sound Machine at end semester review, 2008.

5.2.0 Sound Machine

The goal of the Sound Machine is to give people with limited or no musical background the experience of being a performer. The Sound Machine is designed to challenge users to communicate in modes, non-verbally for example, that they may be unfamiliar or uncomfortable with. Screens are omitted in an attempt to push the computer into the background, allowing participants to focus on their fellow performers.

The reason why I chose the Sound Machine is quite simple. I love music, but I am not a musician. I have always enjoyed watching the dynamics that occur between performing musicians. I wondered if such communication, informed by those professional individuals knowledge of music, would be possible to replicate using non-musicians. This project also presented itself as a great platform for moving away from screen-based media and into physical interfaces.

When constructing this instrument I felt it was important to take three things into consideration. First, audience participation would be a key feature. By allowing people to easily change their role from performer to observer, I hoped to make the Sound Machine more approachable. Second, the distance and location of the performers would be key to the success of this project. Too far and there could be no communication. Too close, and people would feel their personal space was violated, and they would be unwilling to participate. Finally, the performers had to be placed in a way that makes it easy for them



Crowd participation



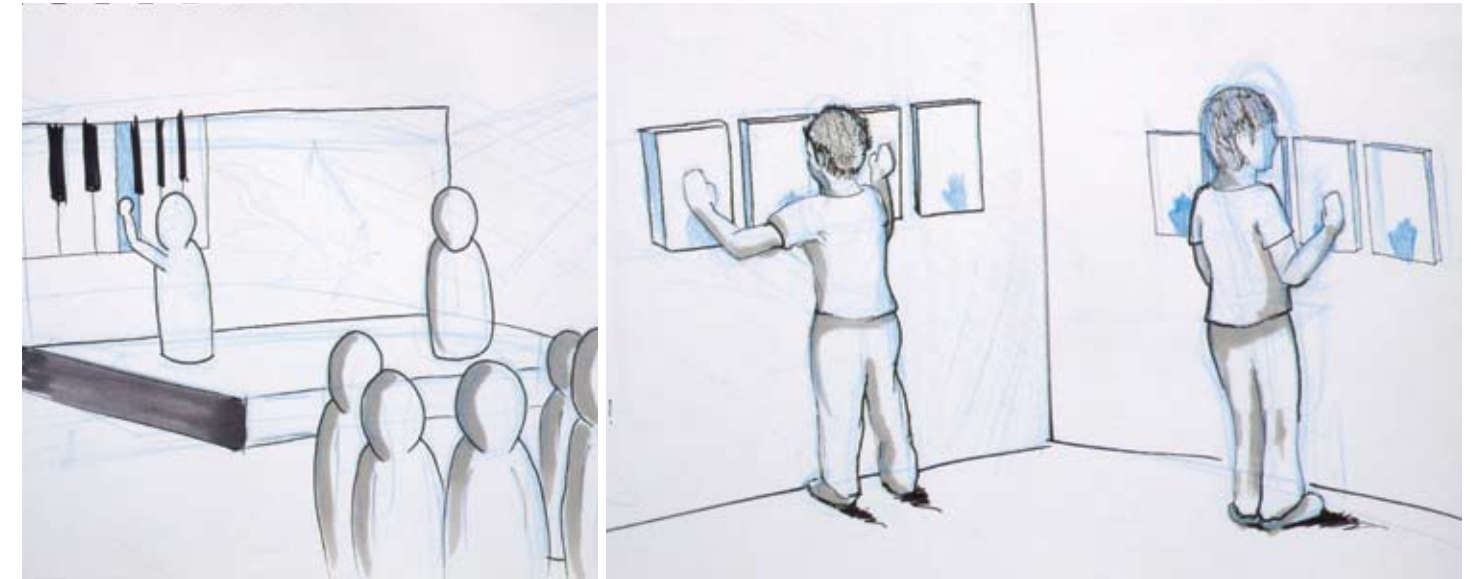
Distance and location



Interaction between musicians

to interact. If these people are going to work together to create a piece of music, they need to feel comfortable giving and receiving instructions to one another.

During the brainstorming phase, I tried out different concepts on paper to find the voice of the project. At the beginning you can already see the performative aspects taking shape. Would there be some kind of projected



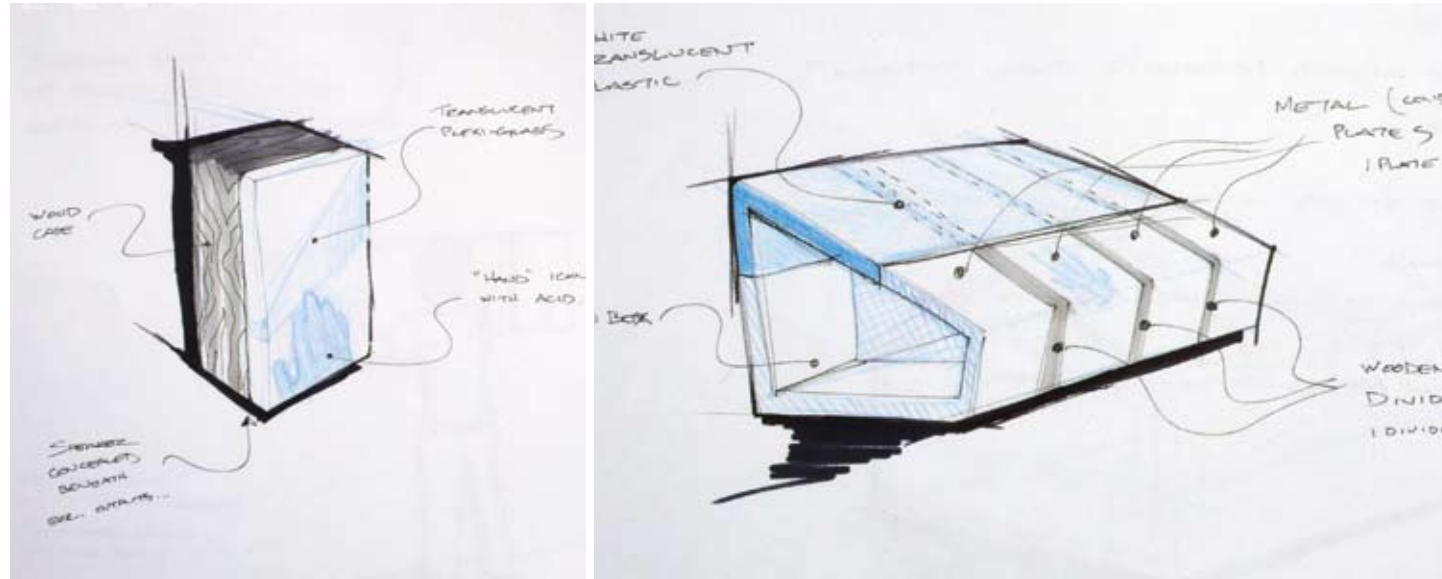
above: initial studies for the arrangement of people and objects.

opposite: creative commons images from flickr.

keyboard on a wall? Is there a stage performers are standing on? The projection idea was quickly dropped, but the touching of the object stayed. Maybe there would be panels hung on the wall? This had the fatal flaw of not allowing performers to see what the other is doing.

The idea of touch stayed with me, however, as I moved into production. How could I alert users they were allowed to touch this device? Text instructions? An icon of a hand? I became interested in the mechanics of how users would activate a sound.

Ideally, there should be no barrier between the users hand, and the sound they triggered. Many long weeks were spent researching touch sensitive capacitance switches in search of a perfect solution. The technical complexities of this route were ultimately beyond my grasp, however, and I settled on using a simple push button. In the end the little red buttons perform their job admirably. We have a cultural knowledge of what buttons are, and their red color makes it hard to resist pushing!

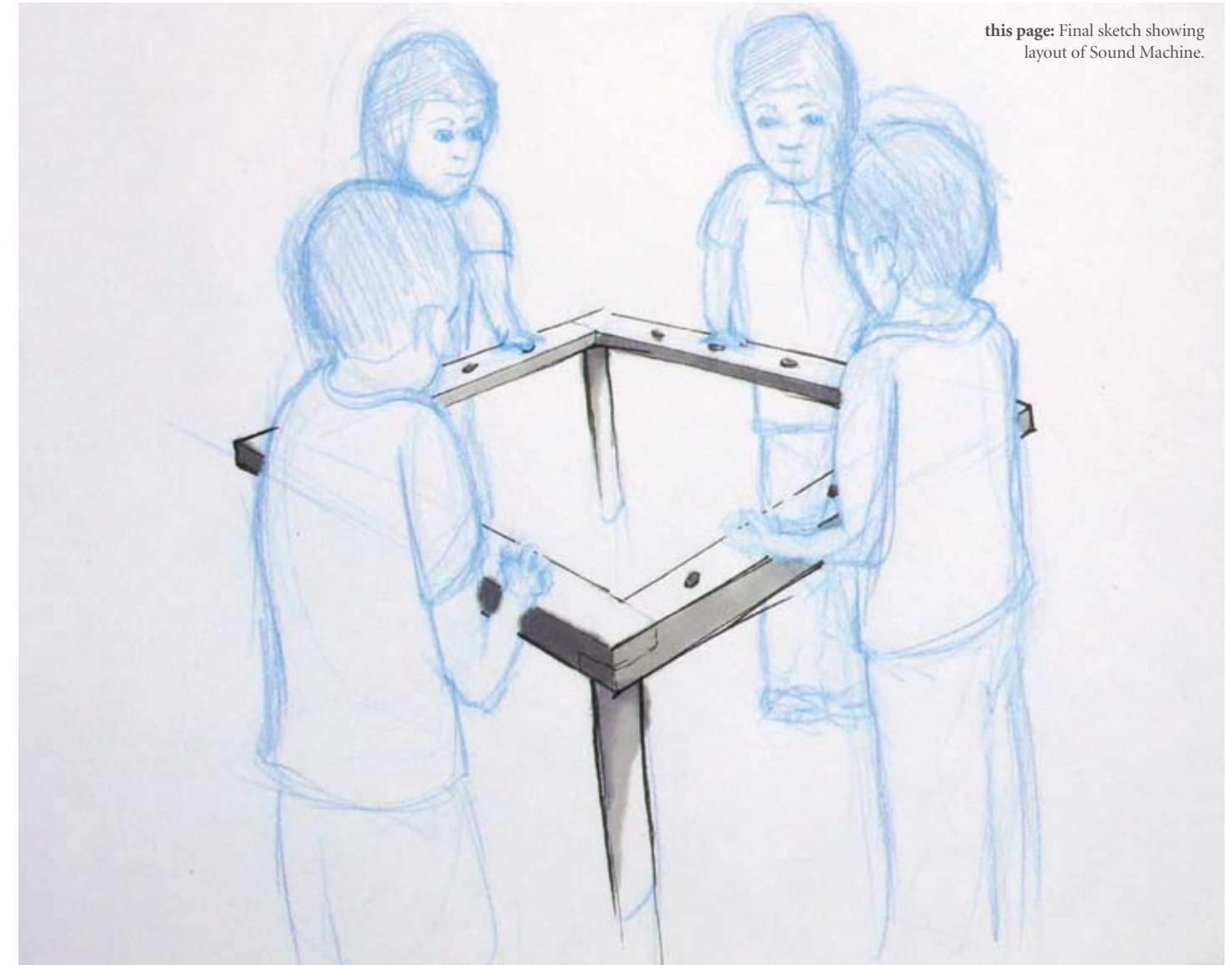


above: initial studies for sensor devices.

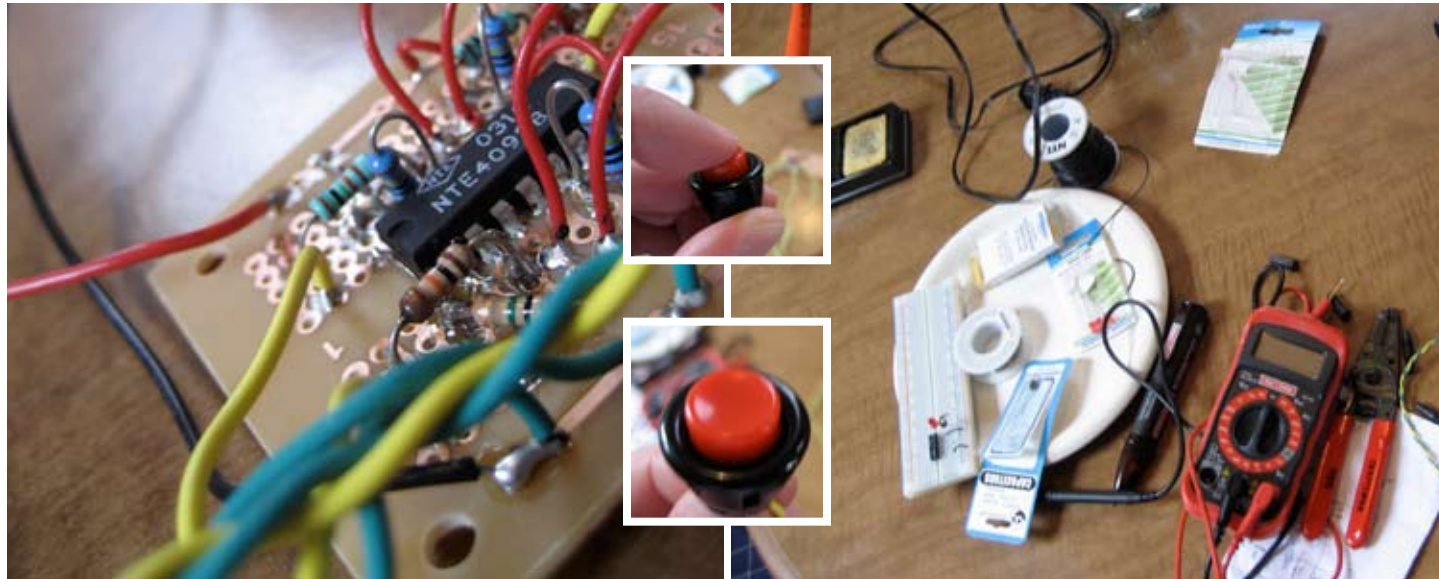
Constructing the physical frame of the instrument allowed me to use my dormant industrial design human factors skills. It had to be built at the right height, of course, but its shape was a core design element as well. Users of the Sound Machine needed to stand facing each other in order to facilitate nonverbal communication (such as eye contact, nodding) that is traditionally observed being used by live musicians. Restricting the amount of inputs on the Sound Machine to four was necessary in order to make the machine approachable. No one wants to use something that makes them look dumb! These input buttons were

placed with enough distance between them so no single user can trigger them all. A group must be formed.

The actual sounds emitted by the Sound Machine are probably its weakest area. The samples used during testing were too long and complicated. Some samples were matching halves of popular songs, included in the hope that users would attempt to recreate the original song. The first testing period was very brief, perhaps with more time to experiment, users could have made those connections for themselves.



this page: Final sketch showing layout of Sound Machine.



above: assorted wires, circuitry, buttons, and tools.

The machine could be more effective by producing shorter, more percussive sounds. During user testing, users had problems identifying which sounds they were generating. I believe this was due to sound samples going on for too long. Making it easier to identify which performer is responsible for which sound, would allow for better cooperation and communication between individuals. Shorter samples would also place the reward for users on releasing the buttons so they could be pressed again. This would help overcome a technical problem, where the sounds start clipping if too many buttons are held

down simultaneously. Hiding the wiring a bit more wouldn't hurt either.

Recently, I revisited this project. I placed the machine in a gallery setting, and allowed people to approach it at their own pace. It was quite interesting to see different personalities working together. Some users were totally uninhibited. At first they would try to activate all the buttons alone, and when they found this impossible, they went out and recruited friends. Others were shy, and wanted to see friends engage with the system before they felt

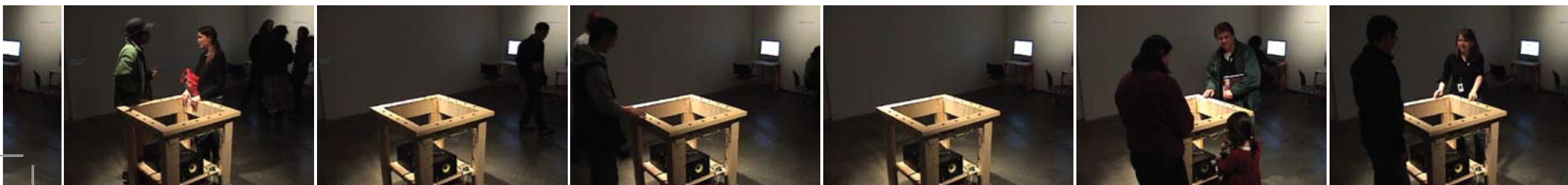


The talented Jeff Vautin was "instrumental" in the development of the Sound Table.

comfortable jumping in. Still others were only interested in hearing what sounds the different buttons would make. Uninterested in participating with others, they only stayed long enough to press each button once. Unsurprisingly, I found that people who had an interest in music were more likely to interact with the machine for a longer period of time. When building the machine, I was aiming to attract people who were not necessarily musicians. I hadn't even considered the fact that non-musicians were much less likely to be interested in playing music!

Ultimately, I felt like the gallery showing was a success. The Sound Machine was interesting enough to get people to interact with it. At the same time it was simple enough so as not scare away casual users. And it held just enough content to hold people's interest for a moment.

For me, that moment of interest was the litmus test for success. It was great to see a group of friends get together and share a smile at the experience. It was even more rewarding to see strangers, or groups of strangers getting together, forming an impromptu community, and using the machine.



Video stills showing interactions between users and the Sound Machine over two and a half hours. Each still represents slightly over four and a half minutes.

if/then: DMI Show
Doran Gallery, MassArt, 2009



above: image copyright insomnia cookies, 2008.

5.3.0 Cookie Battle

Cookie Battle is a quick project I developed to help me better understand my thesis direction. The inspiration comes from Insomnia Cookies, and their mission statement:

“The only food available at night is greasy and heavy. Insomnia Cookies was born out of our dislike of heavy meals late at night, our love of food delivery, and our realization that by the time we got hungry at night, nothing was open.”

So what is the project about? Cookie Battle is itself a non-profit organization that encourages friendly competition between student bodies from two different schools. It is a game designed to be played by incoming freshman during orientation week.

How does Cookie Battle work? Cookies can be purchased by students 24 hours a day during orientation week. The student body that purchases the most cookies in that period has a charitable contribution of \$50,000USD made to UNICEF in the name of the school.

Students also receive some information about the work that UNICEF does. This information would be distributed through literature (like pamphlets), online, and during interactions with the staff members who are selling cookies.





above: Ways information could be accessed online.



above: Ways information would be physically displayed, based on flickr creative commons images.



What are the rules?

The actual cookies may only be purchased in person. Information about cookies, and the overall cookie tally can be tracked in a variety of ways. Online, social networking sites, mobile devices and so on.



What is the student experience?

Physical manifestations of the digital cookie information are displayed all over campus in social settings. Projected on walls, or anywhere students gather to be social. The information would be pervasive during orientation. By the end of the week, viewing these projections would be similar to glancing up at the clock.

Where are the cookies located?

Each day the point of sale for the cookies is moved to a different location. At each new location, a different aspect of the work done at UNICEF is highlighted.



above: Cookie Battle location: Monday, Sept 3.

below: Cookie Battle location: Tuesday, Sept 4.



What are the benefits?

- Students contribute \$50,000 to UNICEF in the name of their school.
- Students meet and connect with their peers while waiting in line.
- Community building exercise helps to increase student retention.
- Students learn the layout of their school while searching for cookies.



above: Food Trucks on Tech Street flickr creative commons image by dalangalma.

Although this project is not feasible to prototype (requiring the \$50,000 donation, as well as the support of two college presidents and a large co-ordinated network of volunteers), it does speak to my thesis topic in several ways.

Allows the community of incoming freshman to meet and greet each other during a formative week in their lives. Those who are more interested, could participate more by “getting out the vote” in order to win.

No one student is able to win the competition, everyone has to work together to receive the reward. By performing the small action of buying a cookie, the larger action of donating money is accomplished.

Students would learn become more familiar with their classmates, as well as the layout of the school. In addition they would gain more awareness about volunteering at UNICEF (or a similar organization).



above: *Critical Mass Vancouver 2007-06* flickr creative commons image by *ItzaFineDay*.

5.4.0 Critical Sound

Critical Sound is a concept for augmenting the musical landscape of a Critical Mass cycling event, held on the last Friday of the month. Participants would send a text message to “1.800.CRT.MASS”. That SMS would be run through an algorithm, and a streaming audio file would be returned. That signal would be bounced to any riders in the mass wearing speakers and other equipment. Sounds would be similar in volume to a boombox, depending on the equipment carried by a rider. The end result is a happier, more enthusiastic ride.

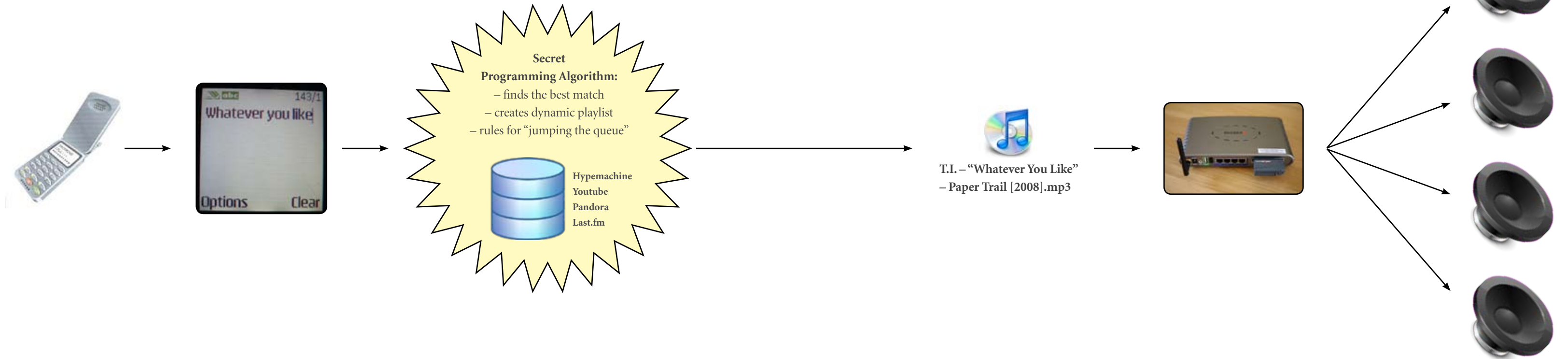
Critical Mass takes place in hundreds of cities all over the world. Outside of meeting at a designated place and time, there is no leader, plan, or structure. The event is completely freeform, often with the route being decided by cyclists at the front of the mass yelling out the direction they wish to proceed.

Critical Mass is an event that requires unity. The sheer number of bicycles crowding the streets provides safety in numbers. An average fair weather ride can draw anywhere from 200 - 500 cyclists. A problem larger masses run into, however, is a disconnect

between the front and back of the pack. In extreme cases, this can even cause the mass to split into two smaller entities.

I wanted to design a system that would bring everyone together, regardless of their location in the mass. I also wanted to allow people to choose their own level of involvement. Almost everyone has a cell phone and feels comfortable sending a text, providing an accessible entry point to the system. But space has also been provided for the adventurous few who want to build their own sound system and participate in the Mass that way.

Critical Sound Flowchart



System requires users to have a cell phone capable of sending text messages.

User sends a text to: +1.800.CRT.MASS or a similar number.

The text message is sent to the Critical Sound server, which decides what song the user wanted to hear, and the order the songs should be played.

The server eventually broadcasts the requested song out over an internet radio station.

Riders in the Critical Mass wearing wireless enabled devices can receive the signal and play it on their speakers.

All Critical Mass participants are treated to T.I.'s newest pop gem simultaneously.



this page: based on flickr creative commons images

Step 1

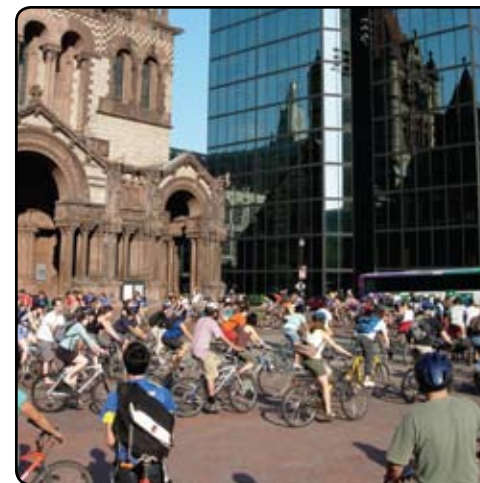
Weeks before a Critical Mass is to take place, fliers are posted all over town to raise awareness of the existence of the Critical Sound system. These fliers include instructions on how to submit content to the system while the ride is underway.

Additionally, a link is provided for advanced users to download technical schematics to encourage hacking of the system.



above: *Waiting to start* flickr creative commons image by Lava.

below: *boston critical mass* flickr creative commons image by *thisisforever*.



Step 2

Just before a Critical Mass ride gets going, there is a communal atmosphere among cyclists. During this period, instructions could be repeated at the last minute, reminding riders how the system is used.

As a natural part of providing instructions and testing, people will be sending text messages to the system, which will seed the queue (playlist).

Step 3

Once the ride is underway, individuals can continue to send text messages of songs they want the rest of the Mass to hear.

Again, Critical Mass is not like a bike race. During the ride there are ample opportunities for cyclists to safely stop their bicycles and send a text message.



Step 4

Once the text message is sent, it makes its way through the towers, and into the Critical Sound Server. This computer is located in the home of whoever is the organizer of Critical Sound.

This is where the “secret programming algorithm” goes into effect. The song queue is held and decided on this server. Once the machine decides on the next song, that audio stream is broadcasted back to the Mass on a streaming internet radio channel.



Step 5

Any rider equipped with special equipment (including a mini computer, wireless internet, and some kind of speaker) can detect the broadcasted internet radio station. That signal is then converted to the requested song, and heard by nearby cyclists.



based on: *Bicycle Messenger* flickr creative commons image by *Thomas Hawk*

Step 6

As each individual node of Critical Sound plays music, their overlapping sounds create a sort of “musical mesh”. This allows all cyclists participating in Critical Mass to share the experience of hearing the same song at the same time.



based on a flickr creative commons image



Rules of the System

This is where the “secret programming algorithm” comes into play. How does the system decide what song to play next? Do you just wait in line like the jukebox at the diner? Or can the system respond to environmental variables? If you’re going up a hill do you want Journey to provide a little extra motivation? What happens when it rains? Or gets dark?

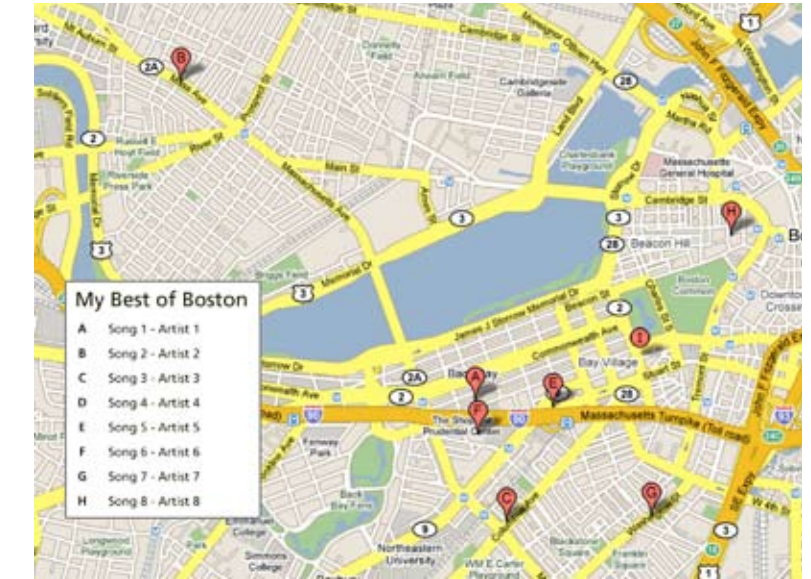
I would also like to see the emotional state of the Mass driving changes to the playlist. If there were lots of riders clustered together, but not moving, that action could be interpreted as “accident” by the system, and alter the music.

Further Applications

Individuals could use Critical Sound as a template towards making their own location based musical maps. For example, you could tag Boston’s Government Center with the Modern Lover’s song of the same title. Then as people passed the building they would hear the song, basically creating a physical playlist. I can imagine users creating a “Best of” playlist to give to visiting friends. The city of Boston could provide a playlist to allow tourists to hear historical facts as they walk the Freedom Trail. This is just some interesting food for thought, and goes well beyond the original scope of Critical Sound.



above: Possible visualizations of a physical playlist, using a Google maps mashup.



Why Critical Sound?

I have ridden in several Critical Mass events in Boston and while it’s always fun, one thing in particular catches my attention. The fact that when the Mass gets quite large, cyclists at the front become disconnected from those at the back.

I wanted to design a way for all Critical Mass participants (and observers too!) to have a shared experience. I decided to do this using music for several reasons. One, your eyes have enough to

do when you’re on the road. Secondly, there is a bit of a party atmosphere during a Mass. A cyclist with a boom box is a popular cyclist.

In keeping with the spirit of the event, the technical specifications of the system would be open sourced, allowing more technical people to create their own devices. This would create a richer experience for everyone involved.

5.5.0 Garden City

I was interested in developing a design strategy that would connect gardeners from around the world. The Garden City concept is a channel of communication designed to be used by urban gardeners of all skill levels. It is a platform for gardeners to ask questions and provide answers, or simply share information about past experiences.

Why gardening? First, this concept of locally grown food has become increasingly popular in American society over the last few years. There are many examples

Artist:
Christopher Silas Neal

Client:
ReadyMade

Year:
2008

Concept:
A reinterpretation of WPA (Works
Progress Administration 1939-43)
initiatives for today's society.





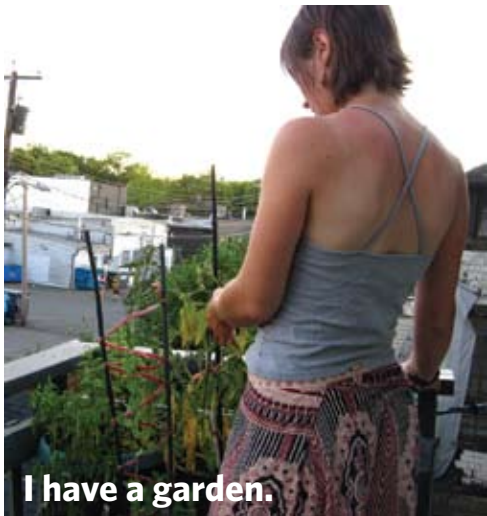
of artists/designers/writers developing new content in this new environmental direction. Here, I've included an example by Christopher Neal showing his interpretation of a war time food security poster.

So what does gardening have to do with dynamic media? It's not the subject itself, but the systems associated with the process. Those who identify as gardeners have a strong sense of community, but only in their local area. I was interested in exploring different ways of interacting that would be of interest to gardeners. Could they find common ground based on the size of their plot? By the crops they are growing?

There were a few specific goals I had in mind when putting this project together. Most importantly, I wanted people to grow some of their own food. Since the scope of the project is focused on urban gardens, the amount of food grown would be small. That's fine! I wanted people to have the experience of growing something from a seed, so they could have a better appreciation of how food gets to their marketplace.

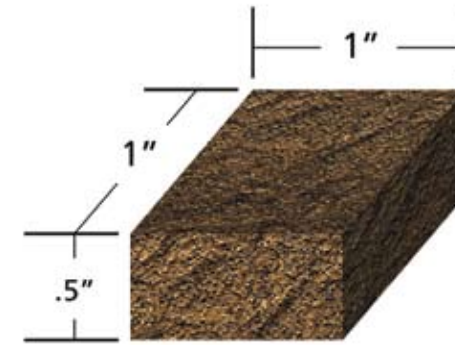
A secondary goal was strengthening the locality of a place. I was hoping Garden City would cause the ranks of existing gardening communities to swell. Other practical goals included, allowing everyone to participate regardless of skill level. As well as providing a clear path for beginning gardeners to follow.

Is there a difference between gardening and farming? Isn't it all just "growing stuff"? The following quote from wikipedia is helpful:



"The key distinction between gardening and farming is essentially one of scale; gardening can be a hobby or an income supplement, but farming is generally understood as a full-time or commercial activity, usually involving more land and quite different practices."

This is an important distinction to make. I am not interested in addressing farmers who have lots of arable land, and have an interest in maximizing their returns. The audience here is home gardeners, working at a small scale during their free time. They are of course interested in growing things, but may also want to meet other people, talk about gardening, or just get out of the house!



above: One sgu (Standard Gardening Unit)

Since each user of Garden City will be different, is it beneficial to compare one garden or gardener against another? I believe it would be, as someone with a rooftop garden will encounter different problems than someone growing herbs on a windowsill. The size of the user's garden is the most useful piece of information to use when comparing two gardens.

How do you go about making those comparisons? I decided to create an open standard unit of measurement that can be applied to all gardens. An sgu (Standard Gardening Unit) would be the amount of soil contained in half a cubic foot. As more dirt means more work, I feel users with similar sgu counts would have other commonalities as well.

Will implementing an open standard for gardening be successful? I don't know. I do know that open standards have been wildly successful in other mediums. Train travel was vastly improved when a standard thickness of rail was laid down. No more time consuming burden of switching cars as the influence of one region gave way to the next.

Now that you have defined a target audience, a goal for them to accomplish, and a quick way of comparing one garden against another, how do you build an online community? What information can be found online that is relevant to physical actions taking place in this community? During my research, I uncovered three locations where data relevant to a particular community lives. A successfully designed system would draw on all of these types of data.

First, there are facts. This is a collection of information that is scientifically true. An example of this type of data as it relates to gardening could be two simple charts. One chart outlines daily sunrise and sunset times, another lists the amount of sunlight plants need to flourish. By combining these two charts, the power of these facts emerge, revealing the optimal times for plants to grow.

Facts alone can be overwhelming, there are so many! But they can be narrowed down by a second data type, personal data. This could be anything from a users location, to their dislike of mushrooms. Since this is information of a personal nature, users may feel reserved in providing it. Getting users to trust the motives of the system is key in getting good data here.

For me, the information generated by the community social network is the most interesting. This is information largely based on opinion. These opinions may be accepted as fact by the community at large, and could even be scientifically true. A gardening example of this could be, "Planting tomatoes and marigolds together reduces pest problems." This is interesting, as the decision whether or not to trust the information is left up to the end user. This data is at the heart of any successful system.

Defining types and locations of data.

External Data

(Facts)

pro: This data did not originate in the community, and is always demonstrably true. There is so much of it that every user will have at least some content to work with.

con: May be irrelevant. It is difficult for users to find what they are looking for in this sea of data.

Social Network Data

(Trusted Opinions, Opinions)

pro: User generated content will be more specific and infinitely more broad than Trusted data.

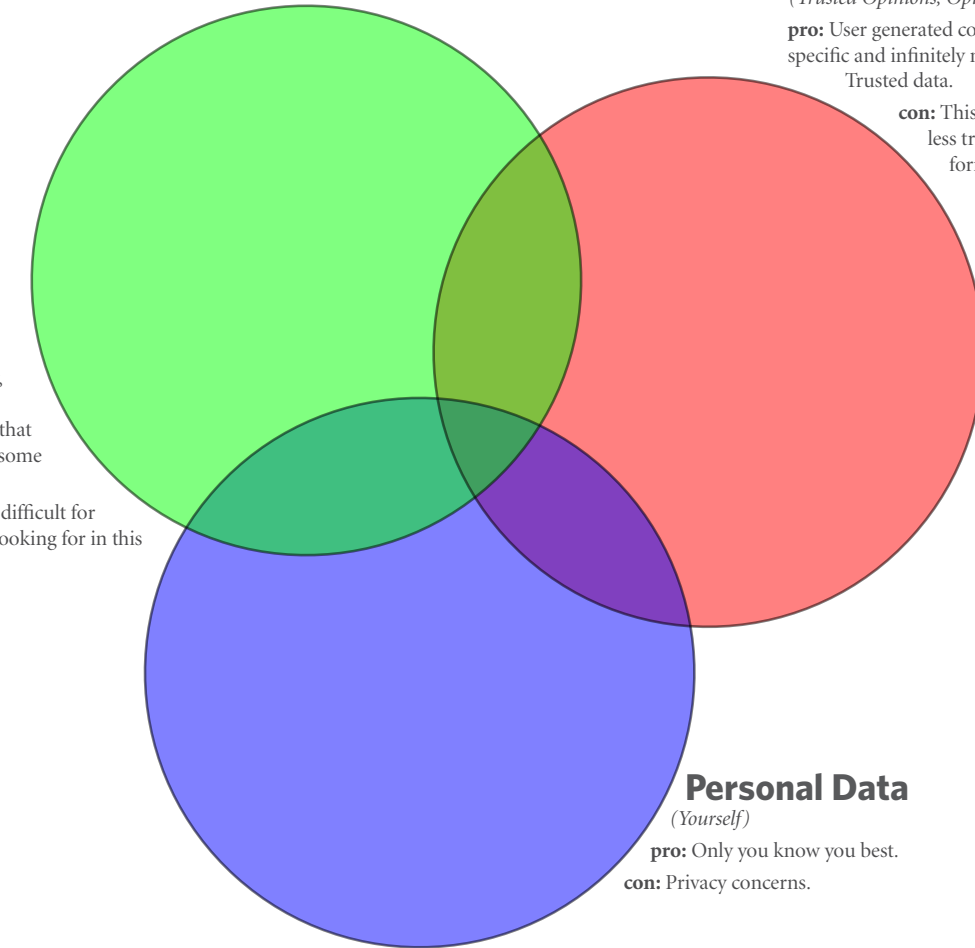
con: This data is inherently less trustworthy than other forms of data.

Personal Data

(Yourself)

pro: Only you know you best.

con: Privacy concerns.





above: Locations of Zipcars near your neighborhood.

My next step was to begin researching current business models that use these categories of information in their design systems. I'm looking for successful companies, gardening shouldn't be the focus yet. But each company's design system should contain all three of these informational categories to varying degrees.

Zipcar was the first company I took a closer look at. Providing a car sharing service, Zipcar describes itself as "Wheels when you want them". Users go online to reserve a car. They use that rented car for a few hours to run errands or go to the beach.

When their rental period is up, the car is returned to its parking space, and the availability status of the car is updated online.

An individual benefits from this service by saving time and money. Lowering the price point of using a vehicle, makes them accessible to more people. The community benefits by seeing less cars on the road, a reduction in traffic, and reduced air pollution.

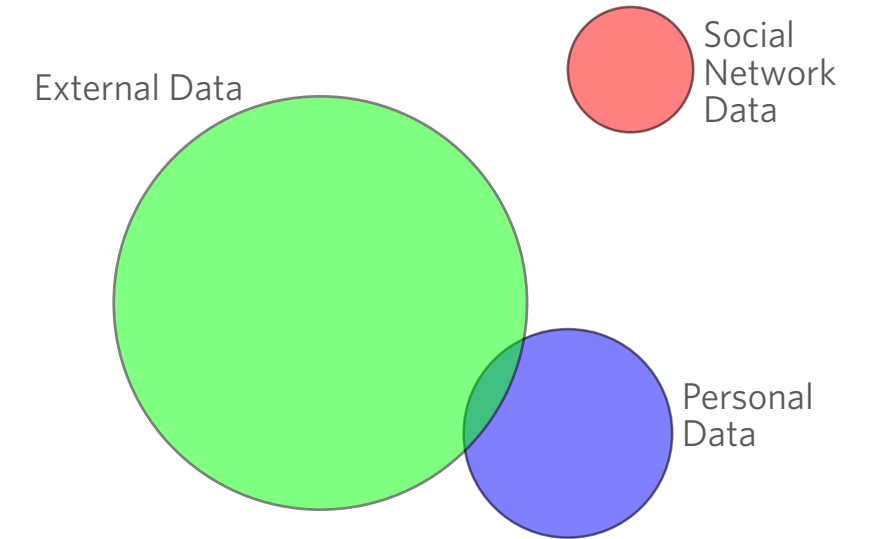
How do these different data types manifest themselves in the Zipcar model? Factual, external data here is related to the cars themselves; such as make, model, MPG, and so on.

Zipcar captures lots of personal data as its users interact with the system. Your location, how often you drive, how far, and your renting patterns are all logged. This information is likely used to know when to increase the size of the Zipcar fleet.

There is a small amount of social network data here, consisting of users sharing past experiences. Things like road trips taken, and memories made possible by Zipcar. This information is only presented on the website in a marketing context, however.

As you can see from the diagram, there is not much overlap between data types. The only real crossover is the availability of the vehicles with the users requested rental time.

There is virtually no social network here. Users can not inform one another as to the state of the vehicle they are renting. Does it smell? Is it making a funny noise? The success



above: Showing the locations of Zipcar data.

below: Visualizing cars potentially kept off the road, Flickr creative commons image.





above: Nike Plus training visualization.

of this system relies on the fact that driving is tacit knowledge. Everyone has taken driving classes at some point and is aware of the benefits of driving. The size of the external data reflects the many extra services available to drivers Zipcar doesn't have to provide, such as driving directions, traffic updates, and more.

A second successful business model that brings together community information, is Nike+. Nike+ is another melding of digital and online worlds. To achieve this Nike created a device that measures and records the distance and pace of a walk or

run. Users can take the information generated by their workout session, and upload it to the Nike+ website for friends or training partners to see.

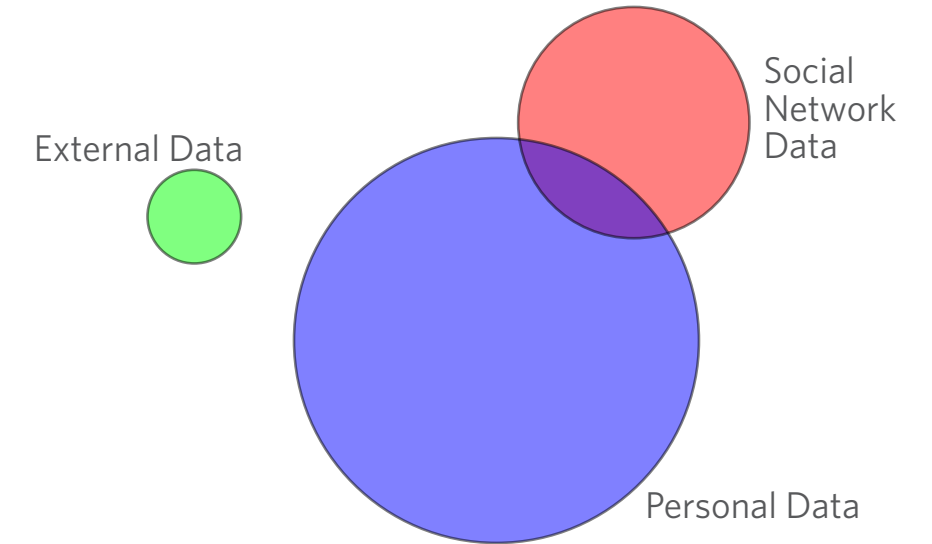
Differing from Zipcar, the external data here is quite limited. The only real tie-ins are to more products! Users have the option to buy a pair of Nike sneakers, or an iPod in order to get the most from the system.

Personal data here is by far the most abundant. The accelerometer in the device detects your pace, distance, calories burned, time spent exercising. It also remembers all workouts and can compare one against the other.

Users must go online to access their social network data. There are options to schedule a time to go running with friends. Groups of runners who have never met can even join the same digital team. Pledging to run a certain number of miles each week.

The real success of Nike+ is the overlap between the personal, and social network data. By allowing runners to form teams online, they no longer have to exercise with others who happen to be nearby, or run the same speed, or have a similar schedule.

Solo runners using Nike+ reported staying motivated to run, and stuck with a regimen longer than individuals without using Nike+. Your digital teammates can see the amount of running you are doing online, and use that to stay motivated. Although not running in a group, runners on a team still felt camaraderie, and would work harder to avoid letting the group down.



above: Showing the locations of Nike Plus data.

below: A community of runners, Flickr creative commons image.





this page: Popular gardening websites, accessed 2008.



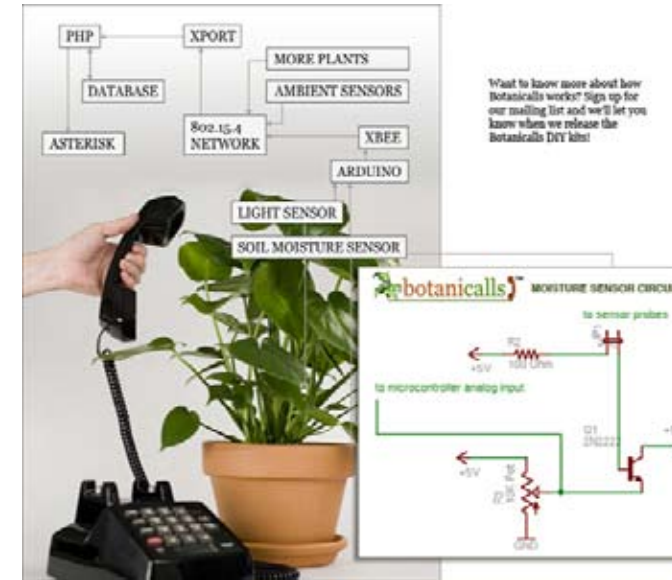
Now that I knew the types of data that were important to me, and had seen them working in other applications, I began researching garden based information systems.

There were many websites dedicated to gardening out there, but few showed much in the way of having active communities. Fewer still had any gizmos, like a vehicle or a sensor in a shoe.

The National Gardening Association has lots of content, and is updated often. They offer ideas, information, and expert advice relevant to your location. Unfortunately, the NGA's site is based on a newspaper model, one to many, with no space for users to get involved.

Some other sites, such as Guerilla Gardening had a great community. But their sites really just function as documentation for their activities, they do not invite you to participate.

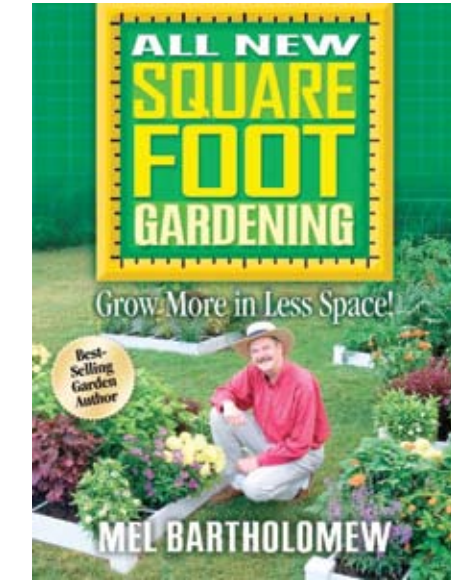
Probably the most successful site I could find, is maintained by the American Community Gardening Association. This site has factual information, like what to grow and when to grow it. It also provides start-up guides



left: Botanicalls schematic.

for first time gardeners, as well as a community garden locator. Allowing visitors to find the nearest community garden to their home.

During my research phase I uncovered a few gardening specific systems. Some approaches are high tech, while one, Square Foot Gardening, is a bit more straight forward. The author of this book, Mel Bartholomew, began preaching his style of square foot gardening in the early 80's. The concept of sectioning off your garden into tiny little plots fit nicely into what I was doing.



right: Square Foot Gardening book.

This book is what got me to decide the final size of the standard gardening unit.

Botanicalls is another interesting system designed by several students at NYU's Interactive Telecommunications Program. They have developed a system that uses several open source technologies (asterisk, arduino, php) to detect a plants moisture level and places a phone call when it needs watering. The Botanicall team goes one step further by assigning personalities to species of plants, reflected by the accent the plant speaks with when



above: EasyBloom plant sensor.

placing calls. This is an interesting concept, and technically stunning, but I felt it was a little too lighthearted in the end. There is a community created, but it's an artificial one built from one person's plants and the pre-recorded voices assigned to them.

The last plant based system I found had me reconsidering the direction of Garden City. A company called EasyBloom marketed its titular device, designed to help people learn what they could grow. In their words:

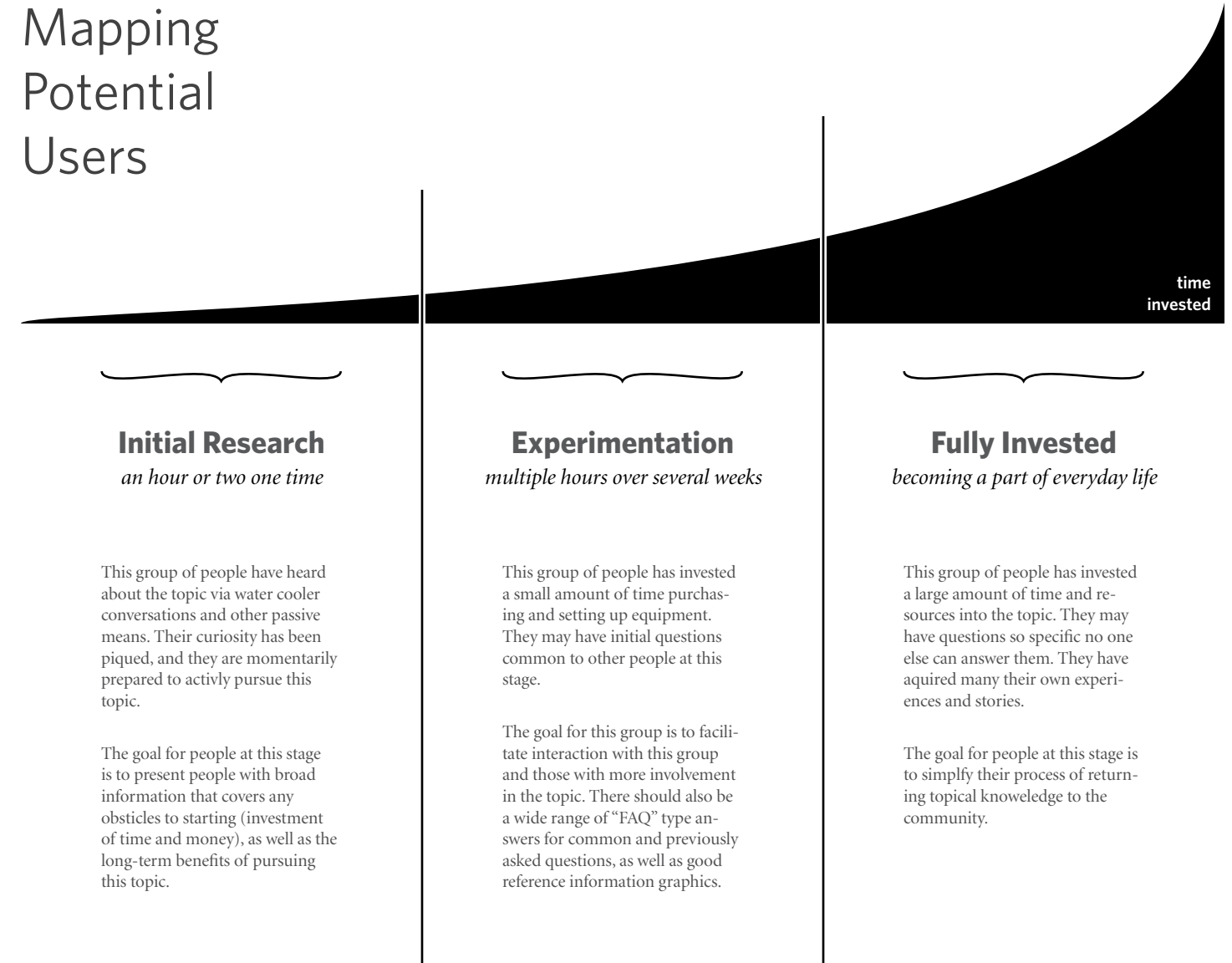
“The EasyBloom Plant Sensor shows exactly what vegetables, fruits, herbs, flowers, trees, shrubs or houseplants will grow anywhere, inside or outside. For over 5,000 plants, EasyBloom has step-by-step plant care, pruning, fertilization and gardening tips.”

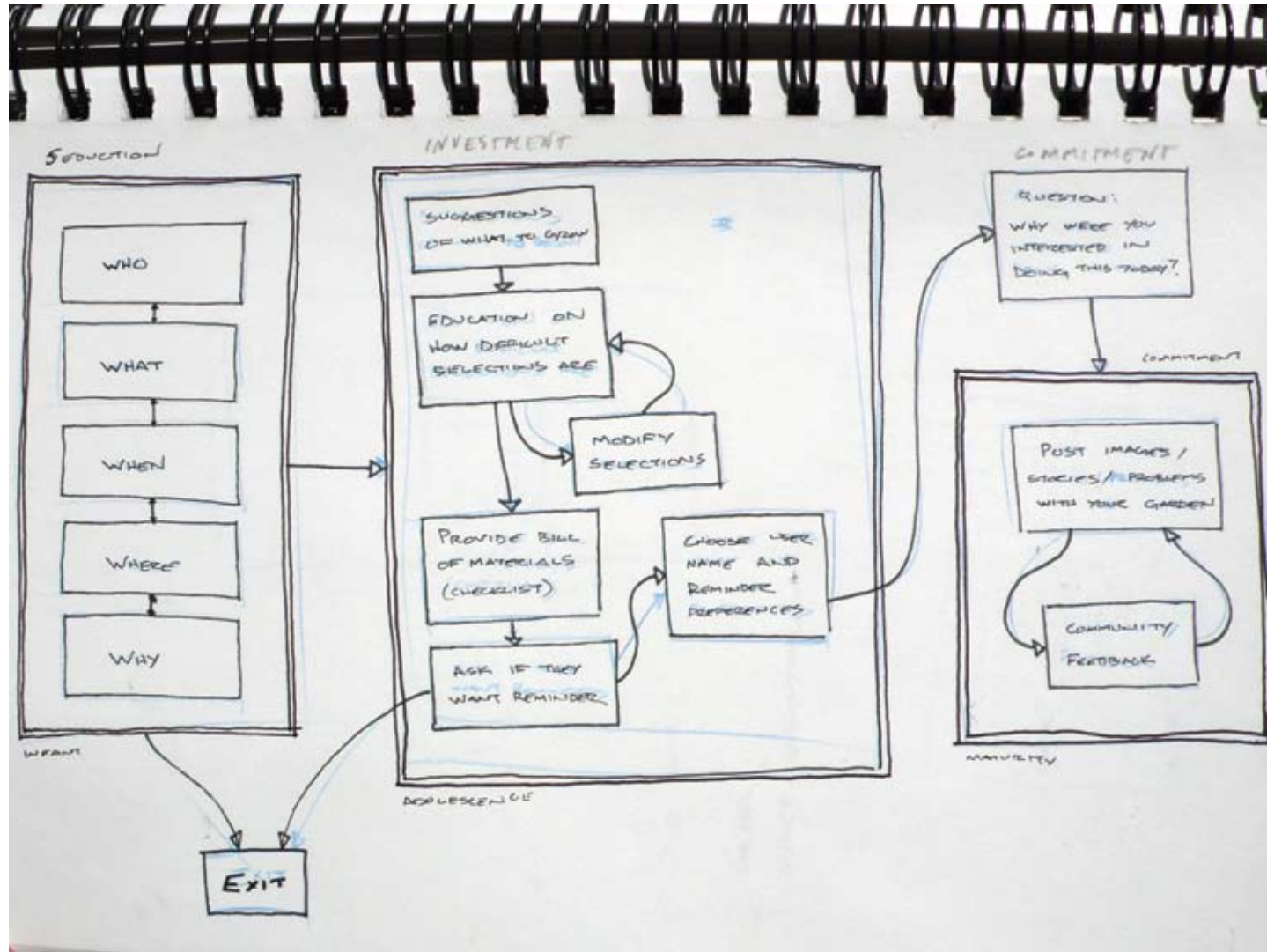
You just place the sensor wherever, and based on your geographic area and the time of year, it will tell you which plants would be most successful in that location. Damn. My research had been pointing me towards developing a product like this. Once I found out it already exists, I knew I had to focus on the community aspects to have a successful project.

I decided to focus on potential gardeners, people who might be interested in beginning, but didn't know where to start. To do this, I put myself in the place of someone who doesn't know anything about a topic. What kinds of questions would these people have?

In gardening, like any other hobby, has millions of questions that need answering at a range of skill levels. A beginner might want to know how much money they need to get started, how much time needs to be invested, and just how difficult

Mapping Potential Users





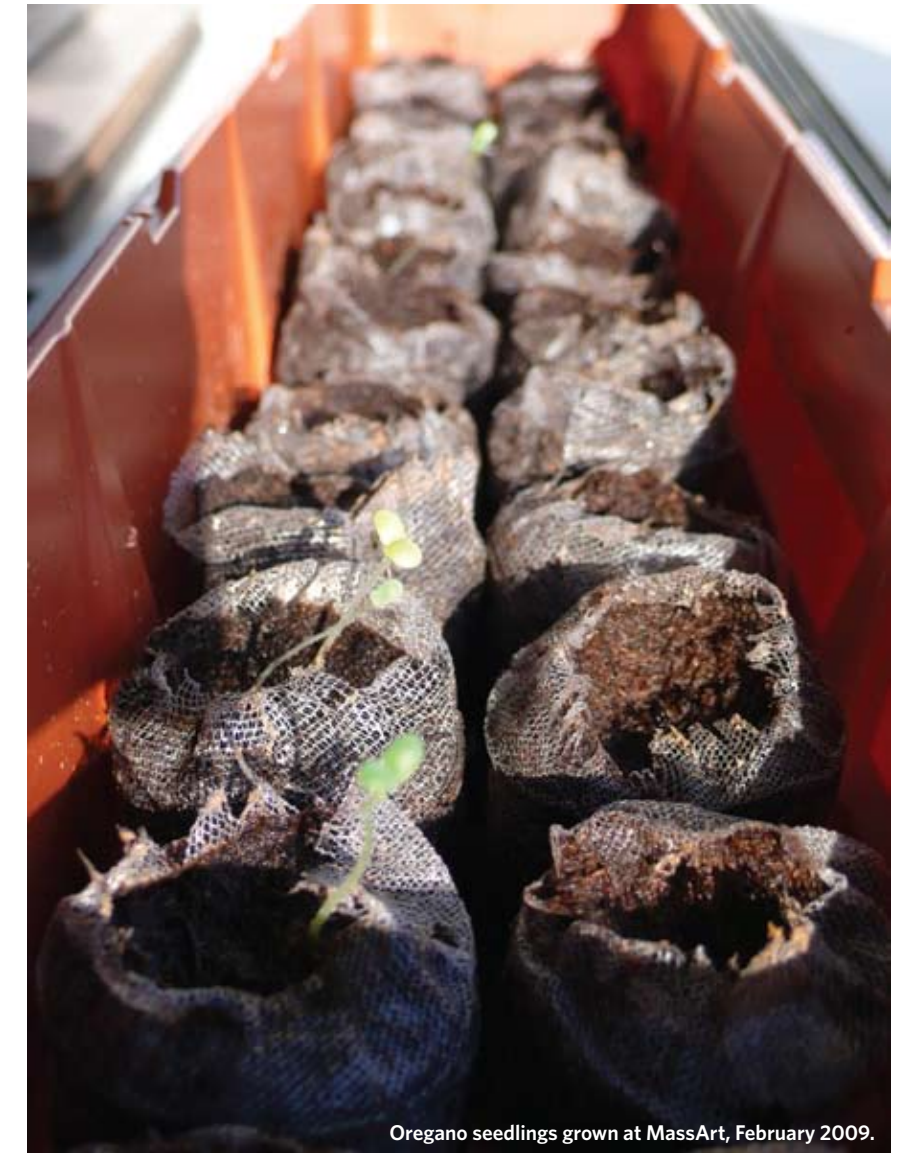
above: Flowchart describing possible paths a user could take on the site

is this anyway? Intermediate users have got their plants started and will need different answers. Maybe just some encouragement to keep going, or specifics on how to deal with bug problems. Experienced gardeners may be interested in talking to other gardeners on their level, or even taking the time to help a few beginners!

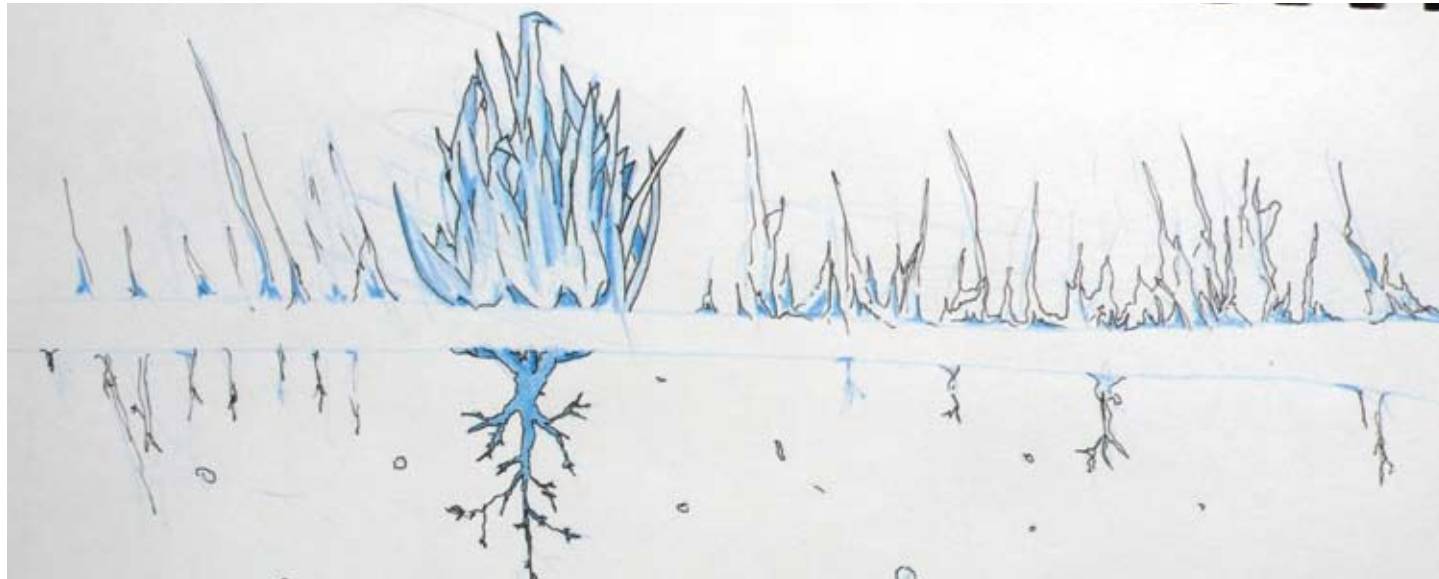
After deciding the type and location of the information break down, it was time to draw a site map. I attempted to bring together all the information I had learned during the research and requirements gathering phases.

I decided on giving the site three phases, roughly correlating with the potential users diagram. The first few pages, should be seen and digested very quickly. Here, users should be learning what they will be getting themselves into. Discovering who else is doing this is important here, as well as the larger societal reasons for starting.

At this point, users have two options. They can decide gardening is not for them, and go on to their next project. Or, they might be interested to know how they can get started.

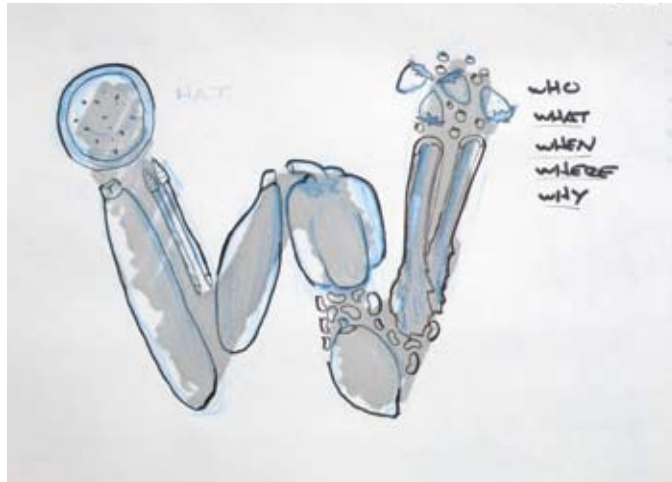


Oregano seedlings grown at MassArt, February 2009.

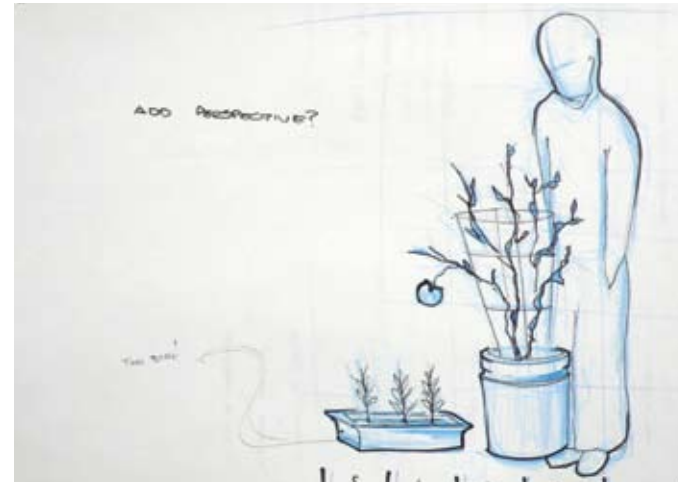


above: Sketch exploring the use of earthy textures.

below left: Sketch exploring ways to recombining vegetables as letters.



below right: Sketch exploring a sense of scale.

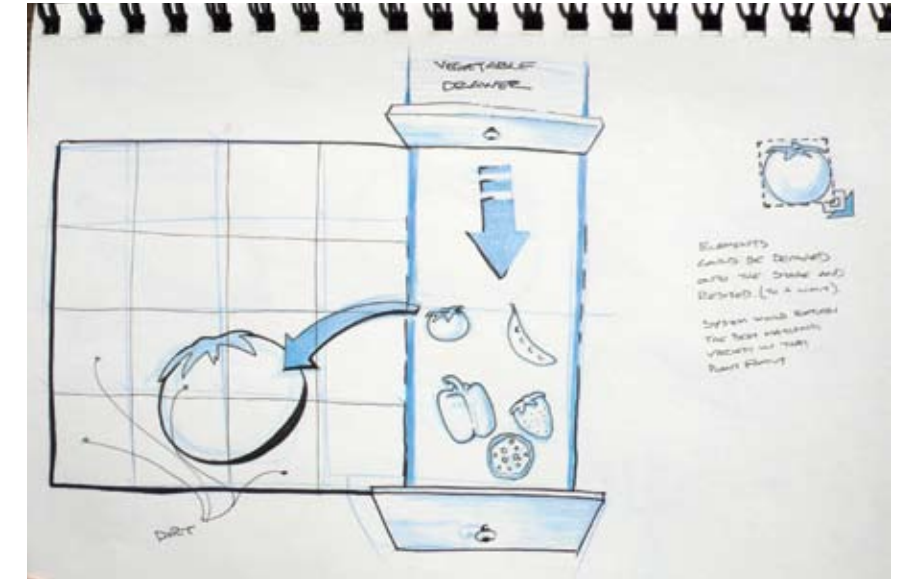


If the “Get Started” button is clicked, this brings the user to the next area. Here they are presented with several common meals to grow. I chose to represent choices to beginners in terms of they are already familiar with, such as pizza, and fajitas. I hoped that providing these options would prevent people from feeling overwhelmed when faced with choosing from the thousands and thousands of different growable vegetable varieties.

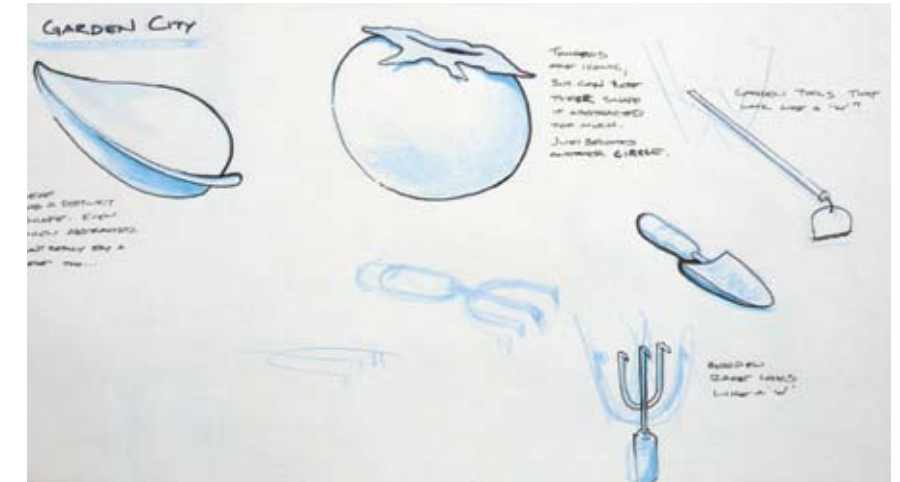
These common meals would not be the last word, but function more as a customizable template. They’re there to get you started.

As the user is experimenting with the tool, they are seeing relevant growing information for each vegetable. When is the best time to start it? How much space does it need? How did others fare when growing this plant? These are the questions that are being answered for the user.

Once the user has selected and tweaked their virtual garden to their liking, they are ready to move on to the next step. By clicking the “Next Step” button, the user is taken to a screen listing the materials required to grow their specific creation.



this page: Sketches exploring possible directions for the introduction and data visualization screens.





above: Showing a small amount of vegetables the user could grow.



above: Showing a large amount of vegetables the user could grow.

Now, for a second time, the user is given the option to disengage from the system. They've planned their garden, they know how much time and space they need, and they've got a printed list telling them what they need now and in the future. They can walk away now with the tools they need to succeed... or they can choose to stay. If they decide to register as Garden City users, the next level of options would be made available.

One option available after registration, is location specific updates for your garden. Garden City's algorithms could cross

reference user plant information with weather information based on that users location. Updates could be then be texted telling users when to bring plants indoors, severe weather alerts and so on.

Would users really be interested in entering all this detailed information about each plant? They already have! The planning tool serves a dual purpose. It remembers the final garden layout chosen, and fills in information related to those plants.



above: Showing user ratings for different species of onion.

How do users communicate with one another? How are passions shared, photos exchanged, and questions resolved? For the online world, the answers is a simple message board. Although not glamorous, the message board has been around a long time, and is quite simple to post and search user content.

An alternative way of broadcasting garden information, would be through the use of a social networking application. For example a Facebook plugin. Users with shared interests in gardening would be able to follow and share experiences with one another,



above: Showing an individuals experience growing one variety of onion.

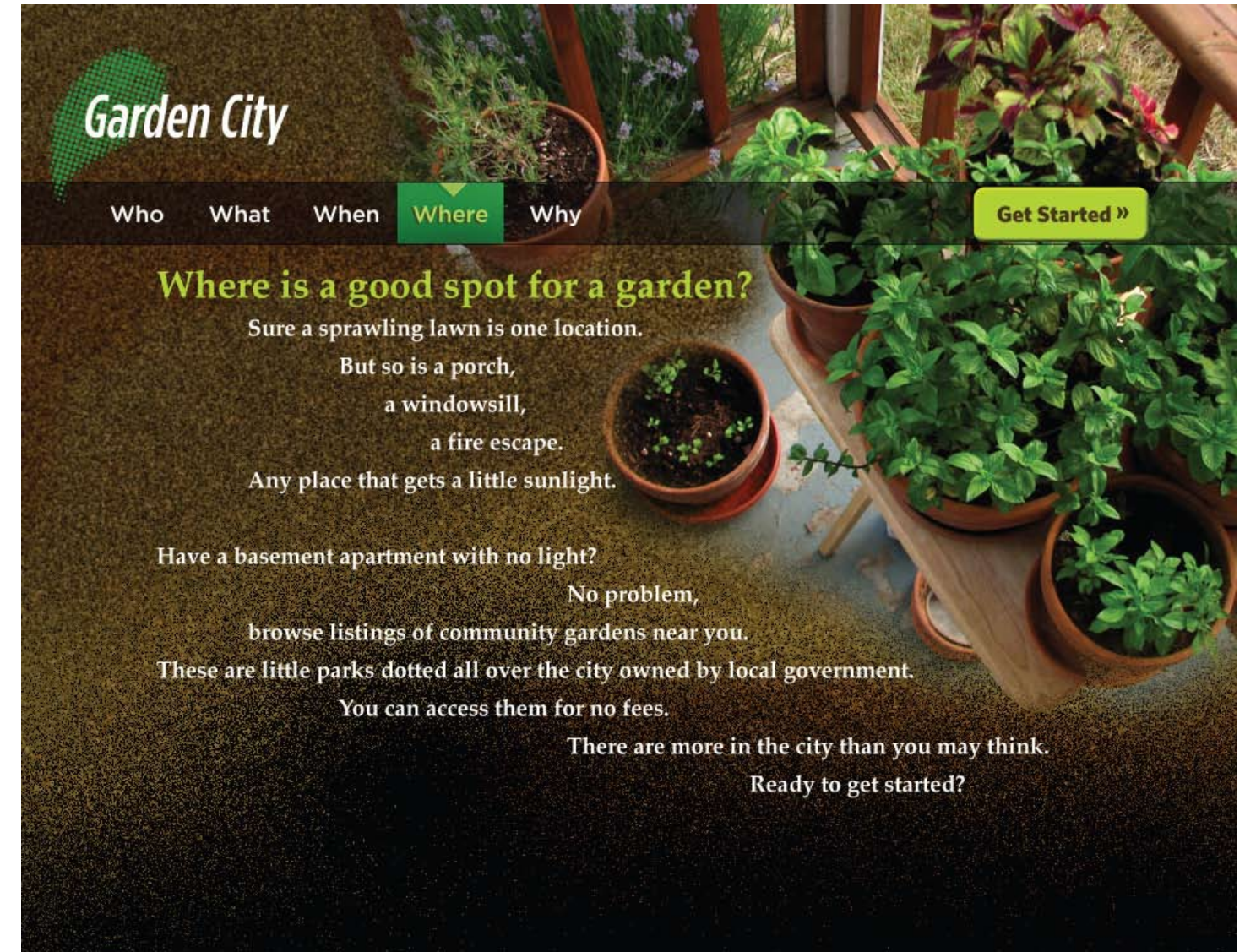
expanding pre-conceptions of a gardening based community. People no longer have to be near each other to share their gardening experiences.

When I showed this concept to actual gardeners, the response I got back was muted. The gardeners in my audience were quite experienced, and have had years to perfect their techniques. They were nice about it, but expressed doubt that they would find much value in a tool like this. I could see their point, as the materials here are targeted at a more inexperienced audience.

I felt compelled to do this project based on some current trends in our society. The United States has seen a huge resurgence in green/sustainable initiatives across the board. Michael Pollan's book has become a best seller, crossing into the realm of pop culture. Even the president is getting in on the action, by planting his own victory garden on the south lawn of the White House.

In hindsight, my desire to work with this material may have led me to push it further than it needed to go. After my research uncovered the EasyBloom device and the American Community Gardening Association website, I could have stopped there and been happy with my progress. One is an amazing piece of diagnostic technology, while the other does an excellent job of performing the social/community function. Using the two of these products together would produce similar results to what I was hoping to achieve with Garden City.

I'm glad I kept on with it however, as I was able to explore the core concept of what a community really is. What components are necessary to cause a community to form? What are all these people bringing to the table, and how can I help them share their knowledge with other interested parties?



above: Final rendering of an introductory page on the Garden City site.

Conclusions

6.0.0

It seems I've always been drawn to communities. From the time I was little, watching family members gathered around the kitchen table playing cards, I always found joy in those moments. The cards themselves didn't need to be well designed, only the suit and rank of each card must be recognized in order to be functional. The cards are simply a means to an end, an open ended system that allows players to express their individual creativity in the context of a larger group. Playing cards are flexible enough to allow broad decisions, and local ones. A group might consciously decide which game to play, and also unconsciously establish "house rules". Rules that are specific to a certain region, type of game, or community of players.



MONKS IN THE COURTYARD OF THE CONVENTO DE SAN FRANCISCO, QUITO, ECUADOR, 2008

What constitutes a community? The word itself has many definitions and synonyms. Here is one definition I found most relevant, found at dictionary.com.

3. a social, religious, occupational, or other group sharing common characteristics or interests and perceived or perceiving itself as distinct in some respect from the larger society within which it exists.

How do they form, these groups that perceive themselves as different? Where do they come from? Where will they evolve to? These are a few of the questions I now take into consideration when starting a new project.

I see my case studies as catalysts that stimulate, or provide opportunities for interconnectivity. My first responsibility as a designer of these groups, is to entice people to get started by providing a low barrier of entry. There can't be much of an experience with no participants! Once people are in the system, the responsibility shifts. Primary focus is placed on the content, and the ways users will interact with it and each other.

Why is creating, and working with groups of people interesting to me? I like to step back and observe. I find controlling every aspect of a users experience unappealing. It seems to me that if your project requires users to act in a certain way, you're setting yourself up for failure. People will always surprise you with their actions! The real fun comes in seeing all the different ways in which my rules have been interpreted. People are endlessly creative, and drawing that out in others gives me a sense of accomplishment.

I find this to closely parallel my reasons for enjoying traveling. Every culture is faced with similar challenges in their society, each with its own way of overcoming

that challenge. I find meeting people from different cultures and witnessing their creative solutions to common problems endlessly fascinating.

While researching and developing my case studies, I have learned a good deal about not only the subjects researched, but myself as well. I had great opportunities to advance my formal communication design skills, as well as my development and programming skills.

I feel more confident now with the process of questioning. What are the right questions to ask to achieve my goal? This process comes much more intuitively to me now, than when I began the program. I arrived with a mostly production background, and feel comfortable now stepping into a role of authorship and responsibility.

Although reverse engineering my thesis topic was the right thing for me to do, it came at the expense of time. With more time to continue this topic of investigation, I would like to do more extensive research on what constitutes a community. More user testing would also be a great next step. I felt one of the most successful moments in my investigation was seeing users interacting with the Sound Machine.

The next case study I would construct would have to challenge the definition of a community. Do people need to be near one another? Do they need to see each other? Hear each other? Where exactly is the line drawn between a few strangers, and a group sharing common interests? That is a question I would be quite interested to know the answer to.

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8.0.0 Thank You!

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Clare McBee

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MASSART

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Dan Johnston
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