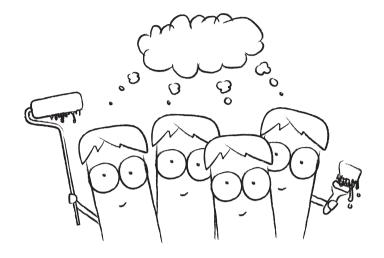
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Crowdsourcing the Production of Public Art

A thesis presented in partial fulfilment of the degree of Master of Design

Massey University College of Creative Arts ~ Institute of Communication Design

Michael Denton ~ February 2010



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Abstract

Many people that would like to contribute at some level towards creating art in public spaces. However little is currently being done to make use of this untapped potential.

The difficulties involved with collecting and coordinating dispersed talent often prevents it from being utilized. But now the Internet offers new opportunities to make harnessing latent talent much easier. Successful online platforms (such as Wikipedia and YouTube) demonstrate the potential value that can be derived from volunteers when appropriate systems are in place to utilize their contributions. Jeff Howe refers to this idea of harnessing distributed volunteered effort via the web as 'crowdsourcing'. Which he explains as "the process by which the power of many can be leveraged to accomplish feats that were once the province of a specialized few" (2008).

This thesis aims to investigate how an online platform might harness voluntary contributions in order to produce public art. The design objective for this project is to develop an online platform that allows people to contribute towards creating art in public spaces. My research explores the needs and motivations of potential contributors as well as techniques for harnessing voluntary contribution and coordinating group effort.

As understanding human behaviour and user interaction is central to this project I have adopted a user-centered approach to research and development. To better understand the requirements of the proposed online platform user research was initially conducted in the form of focus groups with potential users and then via an in depth case study.

In order to tackle the challenge of designing an entire platform the process was divided into distinct elements that could be addressed individually. These elements included the core functionality, the brand identity, the structural design, the interface design, and the visual design. For each element I consider what techniques might help to better harness voluntary contribution.

The final result provides an online environment for people to get involved with specific art projects around their city. Projects are presented as separate challenges and users can contribute at many different levels such as sharing designs online, attending events, or simply providing feedback.

Crowdsourcing Examples

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Section One INTRODUCTION

Research Question

How can an online platform harness voluntary contribution in order to produce public art?

Unpacking the question

This project explores how online platforms can harness the creative talent of volunteers to produce art in public spaces. To clarify what this means I will unpack and explain this question in greater detail over the following paragraphs. I define what is mean by 'online platforms', what 'voluntary contributions' refers to, and how I have defined 'public art' and 'public spaces'.

Defining Online Platforms

I'm using the term 'online platform' (rather than website) to refer to social web applications that provide a framework for users to build upon. Some popular examples of online platforms include YouTube (a platform for sharing videos), Facebook (a platform for connecting with friends), and Wikipedia (a platform aimed at creating a free encyclopedia). Unlike traditional websites that simply present static content, online platforms provide users with an environment or set of tools for creating content and adding to the platform. Designing an online platform is more like designing a factory than designing the goods that that factory produces. Likewise my research is focused on providing users with an appropriate environment for producing artwork rather than creating that artwork myself.

Defining Voluntary Contributions

The term 'voluntary contributions' is intended to refer to anything of value that users can offer to an online platform. This can include substantial content, such as articles, photos, and videos, as well as smaller offerings such as comments, ratings, and page views. For this project I am particularly interested in the potential that unpaid volunteers can contribute rather than professional or paid contributors.

Defining Public Art

I have used the term 'public art' to refer to artwork that has been produced for public display outdoors. This is intended to include not only civic spaces but also private spaces that are publicly assessable such as advertising spaces, commercial buildings and other privately owned property.

My use of the word 'public' is mainly concerned with the how the artwork is displayed rather then how the artwork is produced. While I would like to see a greater level of community involvement as a result of this, ensuring public participation is not the primary concern of this research.

Project Aims

Design Objective

 Design an online platform for people to contribute towards the production of art in public spaces.

Research Objectives

- Uncover the needs and motivations of potential contributors.
- Identify techniques for attracting and utilizing voluntary contribution.
- Identify techniques for coordinating creative groups.

The primary goal of this project is to develop an online platform for people to get involved and contribute towards the production of art in public spaces. This is intended to be a flexible platform capable of accommodating a range of contribution.

From this primary goal I have come up with a number of research aims. These include: understanding the needs and motivations of potential users, identify techniques for attracting and utilizing voluntary contribution, identify techniques for coordinating creative groups, and developing an example prototype to demonstrate how an online platform could function.

Identifying what needs to be resolved is an important part of the design process. While I have stated my initial aims for this project many of the specific objectives that needed to be addressed were not obvious at the start of this project and so I will discuss them in greater depth, along with my methods for uncovering them, as I talk over the design process.

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Section Two

BACKGROUND LITERATURE

The Potential of the Web

Connecting With Others

The Internet is radically changing our ability to connect and network with each other. Clay Shirky, a prominent writer about the web states that "for the first time in human history, our communication tools support the group conversation and group effort" (2008). Until recently, gathering a group of people and making use of their combined skills would require significant resources. The burdens associated with networking large groups have traditionally meant that 'top-down' bureaucratic institutions or small, dedicated teams have been the most effective means for producing anything. However, online platforms now offer the potential for connecting and coordinating large groups of people with much less hassle.

The Social Web (Web 2.0)

Over the last decade the landscape of the web has developed beyond simple static websites for publishing content towards interactive platforms that allow users to contribute and engage with each other. This trend is often referenced by the term 'Web 2.0', which gained popularity around 2004, in response to a range of successful online platforms that seemed to better understand the potential that the web could offer over traditional broadcast media. Successful online platforms such as Wikipedia, eBay, Flickr, Youtube and Facebook all share one main thing in common: they act as a social platform for users to interact with. Rather than simply viewing static websites users can contribute to the platform (such as uploading videos, selling products or making comments) as well as interacting with other users.

Joshua Porter explores the increasing popularity of social web applications in his book *Designing for the Social Web* (2008). He predicts that social web applications are "the future of the web"

and we have only seen the tip of the iceberg. In a diagram showing the evolution of online communication he outlines how the web has progressed. Moving from simple one-way communication (website publishing) towards many-to-many communication between multiple users on a platform.

This diagram highlights the great potential that social web applications can offer by allowing groups to easily network around common activities such as creating an encyclopedia or sharing photos.

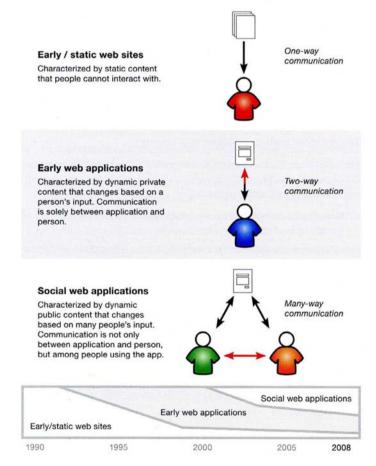


Diagram by Joshua Porter (p.15, 2008) explaining the evolution of communication from one-way to many to many-way on the web.

Reducing the Hassle of Coordinating Effort

Clay Shirky (2008) observes that the hassle of coordinating low-level contribution has traditionally lead institutions to focus on only the most productive individuals. If the burden of involving low-level participation is more hassle than it's worth to the project then it makes no sense to do so. However, web platforms and other cooperative infrastructures offer the capacity to drastically reduce coordination costs.

"We are living through the largest increase in human expressive capability in history" - clay Shirky (2009)

More than Just Consumers

As technology allows more people to participate in creating and publishing content the traditional notion of 'consumer' is becoming increasingly outdated. In a paper titled "Beyond 'Couch Potatoes': From Consumers to Designers", Gerhard Fisher contends that everyday people want the opportunity to become involved as active participants and contribute in personally meaningful activities. Traditionally a broadcast mentality has led us to regard audiences as passive consumers rather than potential contributors. Fisher highlights television as a stereotypical example of this mindset. The production of content is limited to professionals and the only input the audience has is whether or not they watch it. Fisher notes "citizens often feel left out in the decisions by policy makers, denying them the opportunities to take an active role" (p1, 2002). The web, however, offers the unique opportunity to involve people as active participants rather than just consumers.

Participatory Culture

Many people want to take a more active role and interact with the world around them (rather than just sitting on the sideline) and technology is increasingly empowering them to do so. Henry Jenkins refers to this as participatory culture and sees it as a reaction against the culture of passive consumption that has dominated society for the last century. Jenkins (p.9, 2006) describes a participatory culture as one:

- With low barriers to artistic expression and civic engagement
- With strong support for creating and sharing one's creations with others
- With some type of informal mentorship (so what is known by the most experienced is passed along to novices)
- Where members believe that their contributions matter
- Where members feel some degree of social connection with one another.

The End of Bureaucracy

In the book *The End of Bureaucracy & the Rise of the Intelligent Organization* (1993) Elizabeth Pinchot explored how business could engage the talent and expertise of everyone in the workplace. Many organizations are now taking this one step further and asking how anybody, including people outside of their organization can help to improve what they do.

Summarizing The Potential of the Web

The web has the potential to radically change the way we connect, create and communicate with others. Social platforms are increasingly capable of involving audiences and allowing them to contribute. The traditional paradigm of the passive 'consumer' is being challenged as everyday people are empowered by technology to participate more actively and contribute. While this presents a challenge to traditional business it also presents new opportunities to include everyday people as more than just consumers.

Harnessing Voluntary Contribution

This subsection explores current literature on harnessing volunteered effort via the web to produce content (such as photos, encyclopedias, and artwork). While my investigation focuses primarily on techniques that take advantage of the Internet, much of this theory is concerned with understanding human behavior rather than technology, and is equally applicable offline.

Introducing Crowdsourcing

There are a number of recently coined terms for the act of harnessing volunteered effort via the web to produce content. One of the more popular terms is 'crowdsourcing', originally conceived by Jeff Howe in 2006. Howe describes crowdsourcing as "the process by which the power of many can be leveraged to accomplish feats that were once the province of a specialized few" (Howe, 2008).

The word crowdsourcing is intended as an umbrella term for a variety of emerging techniques aimed at harnessing voluntary contribution from everyday people. "When someone correct a misspelling on Wikipedia, uploads a video to YouTube, or suggests an edit to an author who has posted their book online, that's all crowdsourcing. As far as concepts go, crowdsourcing pitches a pretty big tent" (Howe, p177, 2008).

Related Ideas

Yochai Benkler, author of *The Wealth of Networks* (2006), refers to the same concept as 'commons-based peer production' or 'social production.' Don Tap Scott, author of Wikinomics (2006), simply calls this 'mass collaboration' and Scott Cook, who wrote an article titled "The Contribution Revolution" (2008),

promotes what he labels a 'user contribution system'. Although I refer to the term 'crowdsourcing' throughout this thesis I don't mean to exclude or discount these connected ideas.

Crowdsourcing Examples

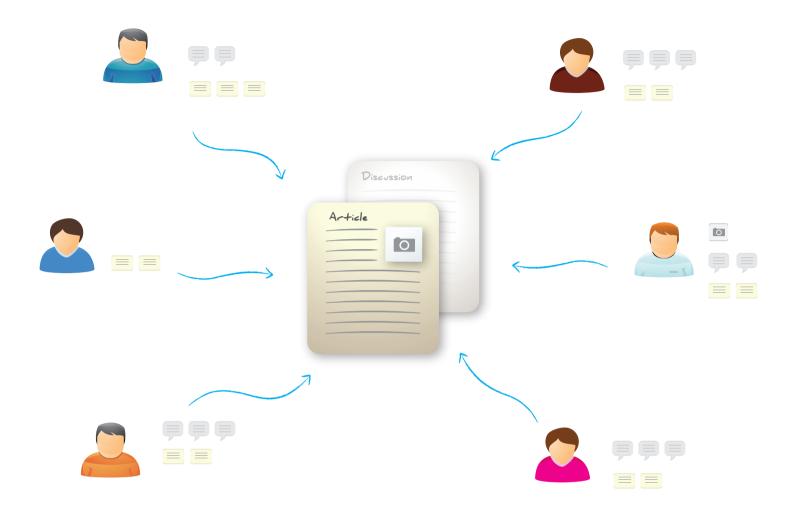
In a book titled *Crowdsourcing: Why The Power Of The Crowd Is Driving The Future of Business* (2008), Jeff Howe investigates a number of crowdsourcing efforts with the aim of identifying why they have succeeded or failed. As popular examples of crowdsourcing he lists Lunix, an open source operating system developed by hundreds of independent volunteers; Wikipedia, a free encyclopedia created by thousands of volunteers; Threadless, an online t-shirt company that lets its users submit designs and choose what should be sold; and YouTube, a video sharing platform, among a number of others.

What Can be Crowdsourced?

Volunteers or users can contribute to crowdsourcing efforts in a variety of different ways, from generating ideas and content to giving feedback and ratings. Howe identifies four main types of crowdsourcing that are currently popular (pg. 281, 2008). These four types of crowdsourcing are: collective intelligence, crowd creation, crowd voting, and crowd funding. While other forms of user contribution may exist these four main categories help to demonstrate the range of potential that crowdsourcing can tap into.

1. Collective Intelligence

A central principle of crowdsourcing is that groups are typically more knowledgeable than individuals. James Surowiecki, author of *The Wisdom of Crowds: Why the Many Are Smarter Than*





Wikipedia allows many different people to contribute towards creating each encyclopedia entry. Users can contribute text and images, or make comments on the discussion page for each encyclopedia entry.

The screen shot to the left displays an encyclopedia article on wikipedia.

The above diagram (created by myself) illustrates how various people can contribute text and images to an encyclopedia article.

the Few (2004) argues than under the right conditions groups can produce smarter outcomes than any one expert could have produced. A common example of this can be seen in support forums where a community of users is often able to identify solutions better than employees.

2. Crowd Creation

Platforms that host user-generated media such as YouTube and Flickr, as well as collaborative projects such as Wikipedia and Drawball, all rely on creative contributions from their users.

3. Crowd Voting

Sites such as YouTube and Threadless encourage users to not only produce content but also rate other peoples contributions. As the community shares the task of evaluating content the most popular content can be easily discovered with out needing an expert to sort though submissions.

4. Crowd Funding

Howe observes that crowdsourcing might also be a way for communities to collectively finance things they like. The idea of 'crowdfunding' taps into the collective wealth that user can offer. As an example Howe references SellaBand, a music label that allows people to buy shares in the bands. "When enough believers buy in, SellaBand produces their album" (pg.281, 2008).

The pooling of collective resources could potentially extend to other possessions as well. Online communities are already finding ways to aggregate the combined wealth of users in the form of movies, cars, lawnmowers, and even couches. The trick is getting people properly motivated to contribute.

What Can't be Crowdsourced

Although the collective efforts of volunteers can produce amazing outcomes such as Linux, Wikipedia and YouTube there is a limit to what volunteers will do. Howe stresses that crowdsourcing should not be though of as not a form of cheap labor but

rather a way of empowering communities. The communities control the scope and direction of crowdsourcing efforts and they need to be passionate and willing to contribute.

Why Do People Contribute?

In order to attract voluntary contributions it is important to understand why people contribute. Howe observes that successful crowdsourcing efforts need to offer contributors some sort of personal benefit that motivates them to participate. Cook argues that people typically contribute not for financial profit but rather for social reasons, such as the interaction with others and the recognition that they gain. Over the next few paragraphs I will explore a variety of reasons why people are likely to contribute to platforms.

1. Unconscious Contribution

In some cases platforms are designed so that users automatically contribute as a by-product of doing other activities. For example, by purchasing books on Amazon shoppers automatically contribute to their recommendation engine with out even realizing.

2. Practical Solutions

Another reason people contribute towards platforms is because it serves them a practical function. Scott Cook (2008) uses the social book-marking platform Delicious.com as an example. Users typically bookmark websites because they want to keep track of them for later, however by doing so they are also helping to produce a catalog that is useful to other users.

3. Attachment to a Group

Joshua Porter notes that people often participate online because they want to be involved with the community on that platform. Humans are innately social creatures and we "derive enormous value from social interaction" (Pg.7, 2008).

4. Reputation

The desire for public recognition, or the admiration of peers,

can also be an incentive to contribute. Platforms that rely on user-generated content typically emphasize the contributions that various people have made. Joshua Porter observes that promoting the identity of contributors not only helps to reward the contributor but can also prevent undesirable behavior since people do not want to damage their reputation (p.98, 2008).

5. Self-Expression

Many content sharing platforms systems thrive on individuals desire to air their thoughts, opinions, or creative expression. The tag line of YouTube, 'Broadcast Yourself', taps into this desire for self-expression as a way to motivate users to upload their videos.

6. Taking Part and Influencing

David Gauntlett (2009) makes the case that though the process of making things and sharing them with the world we come to feel more engaged and connected with the world around us. By participating in the production of things with others we feel that we are part of something larger and take on a role much more valuable than that of a mere consumer. Rather than being passive observers people contribute because they want to take part and have some influence.

7. Succeeding at a Challenge

Bennis and Biederman suggest that people like solving problems as it makes us feel good (pg.215, 1997). When an activity is presented as a challenge rather than a task people are more eager to take it on and feel a sense of accomplishment upon completing it.

8. Altruism

Another reason people contribution is because we may care about others and want to help. A common example of this is product reviews. A person already knows what a product is like but shares their knowledge freely because they feel it might help others.

Why Financial Payment can Inhibit Contribution

Scott Cook notes that in some cases finical payment can actually lessen the level and quality of contributions. Dan Ariely (2008) explains that the reason for this is that when people perform a task for social reasons they reap social rewards, such as a feeling of good will and social prestige. However, when they are paid financially for their efforts people then view the task as a job and perform according to the amount they are paid.

Attracting the Right People

Jeff Howe notes that it is important for crowdsourcing projects to attract the right community of contributors (pg282, 2008). "If you're creating a service in which sports teams can tap the best-performing Fantasy Baseball managers for their aggregated wisdom, ten thousand scientists won't do you much good".

It is important to realize that people can contribute in a variety of different ways.

Allowing a Spectrum of Participation

It is important to realize that people can contribute in a variety of different ways. Although some people may not want to actively produce content they might want to contribute in less demanding ways such as providing feedback and making small edits Gerhard notes that the choice between either passively observing and actively contributing is not a clear-cut decision. "It would be a mistake to assume that being a consumer or being a designer is a binary choice" (2002).

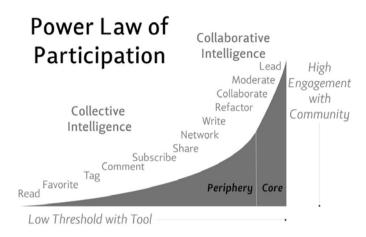


Diagram by Ross Mayfield (2006) illustrating how social software can utilize both high threshold engagement (to generate collaborative intelligence) and low threshold engagement (to generate collective intelligence).

Ross Mayfield (2006) illustrates this idea of different levels of engagement in a diagram that applies Long Tail Theory to the act of participation. He observes that on platforms such as Wikipedia and YouTube only a small percentage of the community participate in activities that require significant contribution such as creating videos or writing encyclopedia entries. However as the tasks become less demanding, such as commenting or simply rating, more people are increasingly willing to contribute their effort.

Breaking Down Tasks

Breaking down a massive task (such as writing an entire encyclopedia, or programming a complete operating system) into small manageable chunks can allow many more people to get involved and contribute. Howe observes that the ability to divvy up large tasks means that "it not only becomes feasible, but fun" (p.11, 2008)

Identifying Useful Contributions

Crowdsourcing from a large pool of contributors increases the likelihood of getting valuable contributions. However, it also increases the amount of undesirable material as well. Howe notes that many crowdsourcing efforts use the community to sort through content and find the best contributions. "If you find yourself inundated with submissions, don't bother sifting through them yourself ... allow the crowd to find the best and brightest diamonds in the rough" (p. 287, 2008).

Summary of Harnessing Voluntary Contribution

'Crowdsourcing' is, according to Jeff Howe, the process by which the power of many can be leveraged to accomplish feats that were once the province of a specialized few. This process can be seen in web platforms such as You Tube, Threadless, Linux and Wikipedia. These web platforms show how effective the masses can be at completing tasks such as problem solving, creating of content, judging content and funding.

Coordinating Group Effort

The book *Organizing Genius* by Warren Bennis and Patricia Biederman (1997) starts with the statement "None of us is as smart as all of us". When managed appropriately groups can produce fantastic outcomes. However coordinating groups and directing them toward successful outcomes is not always a simple task. In this subsection I will explore some of the current ideas around how to successfully coordinate group effort.

Barriers to Collaboration

Advocates of participatory culture and crowdsourcing usually discuss the benefits of mass collaboration however it is important to also consider some of the potential pitfalls as well.

Clay Shirky, the author of *Here Comes Everybody* (2008) notes that the shear size of groups has traditionally created barriers to meaningful collaboration. Without the appropriate technology it is almost impossible for large groups to have meaningful discussions amongst themselves. Members of a group may need to be available at the same time in the same place and even then it is difficult for everyone to participate. The advantage that individuals or small teams have over large groups is that there are less people to coordinate.

Without some form of management or organizational system it can be difficult for people to work towards achieving a holistic objective. Differences of opinion between members of a group can prevent people from working together and producing successful outcomes. In order for collaborative teams to succeed it is important that people can work towards the same goal.

The Need For A Unifying Vision

Bennis and Biederman (1997) observe that collaborative teams work best when everybody shares a similar vision. A diverse range of views can be healthy for generating creative ideas but it can cause issues if the aims of individuals are so different that they are unable to work together. When members of a group have conflicting objectives Bennis and Biederman suggest that it can be better to fork into subgroups rather than attempting to please everyone.

But even among groups of likeminded people it can be hard to produce successful outcomes without a clear goal or vision. In an article titled 'Did Assignment Zero Fail' (2007) Jeff Howe explores a failed attempt to get a crowd of volunteers to organize themselves and write a report on crowdsourcing. Howe noted that one of the main reasons it failed was because it did not have an obvious mission "you have to be way clearer in what you ask contributors to do". Goals like 'creating a free encyclopedia' help to focus a groups effort and keep everyone on the same page.

Providing Leadership

When working on collaborative projects large groups need to address the issue of how individuals can contribute without needing to understand the entire project. Having a leader to help coordinate what people do is one way that large groups can organize themselves. In an essay titled 'Digital Maoism' Jaron Lanier (2006) argues that some form of leadership is always necessary to coordinate effort in large groups: "Every authentic example of collective intelligence that I am aware of also shows how that collective was guided or inspired by well meaning individuals".

Within top-down organizations leaders have traditionally told people below them what to do; Howe (p.284, 2008) notes that the role of a leadership in crowdsourcing efforts is not to dictate instructions but to understand what the group wants to do and help direct people towards achieving these goals. Jimmy Wales,

the co-founder of Wikipedia, states that "particularly with volunteers the command and control attitude just doesn't work" (2009). Treating the idea of leadership as facilitating rather than controlling not only pleases volunteers but also allows ideas to come from everyone rather than just those at the top.

Structure As Leadership

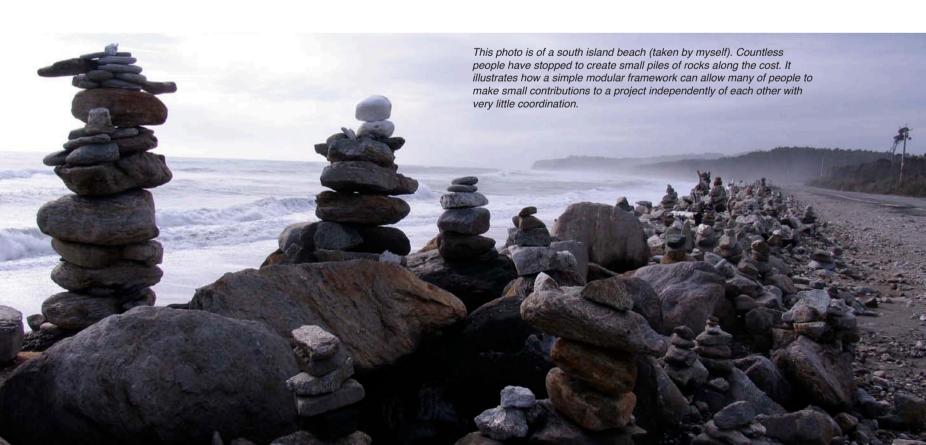
While leadership typically comes in the form of individuals helping to guide a community it can also be built into the structure of a platform. For example on Wikipeida the commonly understood structure of an encyclopedia (a book of factual information divided into separate articles on each subject) provides contributors with vital structure and direction. While a traditional 'leader' may not be present on platforms such as Wikipedia, YouTube, or Facebook, the underling framework plays a huge role in shaping and enabling what gets produced. Keith Sawyer notes that "the collaborative organization is no anarchy; it's filled with structuring and ordering features" (p. 170, 2007).

Benefits of Modularity

One way that structure can help to coordinate group effort is by breaking a project down into modular components that can be crafted independently of each other. In a paper title "The Architecture of Participation" Tim O'Reilly observes that the modular structure of collaborative projects (such as Lunix, and Wikipedia) allows numerous developers to work on small segments of a much larger project completely independent of each other with very little coordination.

Summary of Coordinating Group Effort

There are barriers to successfully coordinating group effort, namely that the larger the group the more difficult and time consuming the process of communication can become. However, these difficulties can be overcome using a variety of techniques. These techniques include having a unified vision, providing strong leadership, building structure and direction into the platform, and adopting modular frameworks.



Managing Creativity

Encouraging groups to be creative is not an easy task. However some environments do a much better job of supporting collaboration and creativity than others. In this subsection I will explore some of the key ideas around managing creativity and consider how this might relate to the design of an online platform.

Connecting Sparks

Keith Sawyer the author of a book titled *Group Genius* (2007) argues that creativity is always a collaborative process. Even if people are working alone they are building upon the ideas of others. He explains the creativity is the result of many small sparks coming together to result in an innovation (p.192, 2007). If we adopt this view of creativity then it makes sense to develop creative environments that encourage the open sharing and connecting of ideas or 'sparks' in order to stimulate innovation.

Connectedness vs. Diversity

While greater connectedness is useful for exposing people to new sources of creative material Sawyer observes that too much interconnectedness can actually reduce innovation. "If the network is totally connected, there is less diversity of ideas and the web risks falling into a rut of conventional styles" (p.199, 2007). This argument is supported by research into brainstorming that shows when large groups generate ideas together they can often fall victim to 'group think' and generate less original ideas than they would have individually (p.66 2007). The effects of ideological amplification are useful to consider if it's necessary to generate a diverse range of ideas. For the sake of producing public art, however, like-minded thinking among contributors could be seen as a positive outcome.

Encouraging Creative Exploration

Sawyer observes that the best way to produce creative solutions is to generate lots of ideas and then select ones that work best (p.162, 2007). Producing innovative solutions typically requires people to experiment with many ideas that may or may not be successful. In order to encourage innovative thinking organizations need to establish safe environments that reduce the effects of failure and reward risk taking.

Producing innovative solutions requires people to experiment with ideas that might not be successful

Jeff Mauzy and Richard Harriman note that the people often choose less innovative options because they fear the consequences of failure (p.64, 2003). However, if organizations can provide environments where it is safe to experiment with risky ideas then people are more likely to pursue innovative ideas.

Allow Time For Ideas To Emerge

Sawyer observes that tight deadlines and performance-based incentives can often inhibit people from engaging with the sort of lateral thinking required to generate innovative outcomes (p166, 2007). Yet without some sense of urgency it is natural for people to put off tasks until they are more urgent. Success-

fully managing creative projects requires a healthy balance between motivating action and encouraging creative thinking. This is typically achieved by prescribing a process for achieving particular tasks.

The Creative Process

In the book *When Sparks Fly: Harnessing the Power of Group Creativity* (2005) Leonard and Swamp outline a creative process for people working in groups.

- 1. Preparation (selecting group members to maximize creativity)
- 2. Innovation opportunity (Identifying the problem)
- 3. Divergence: Generating options (promoting divergent thinking)
- 4. Incubation (taking time to consider options)
- 5. Convergence (moving from many options to one innovation)

Although it is laid out in a linear fashion with five stages Leonard and Swamp admit that in reality the process is not as neatly organized. "A physical model of the process would look more like a plate of spaghetti" (2005, p.9). Although tere are numerous variations of this creative process with slight changes depending on the context most models follow a common process of identifying the issue, generating ideas, evaluating ideas and then implementing them.

Summary of Managing Creativity

Creativity is a collaborative process, whether individuals are inspired by the work of others, building upon existing ideas, or working in a team. In order to foster creativity it is important to establish an environment where ideas can fly freely and inspire others. Innovation also requires experimentation, which isn't always successful so it is important to establish safe environments that reduce the effects of failure.

Section Three

RESEARCH AND DESIGN PROCESS

Overall Approach

What is the process for developing this platform?

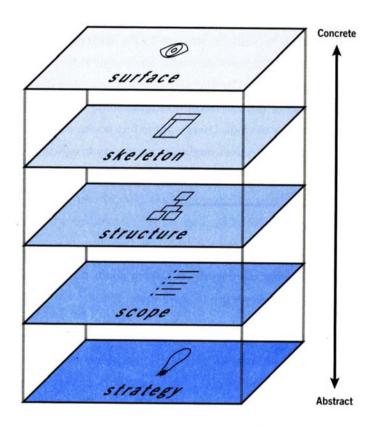
A User Centered Approach

The intent of this project is to design an online platform to help people get involved and contribute towards art in public spaces. The way people interact with this platform will be crucial to the success of this platform. As such I have chosen to adopt a user centered approach to my research and design.

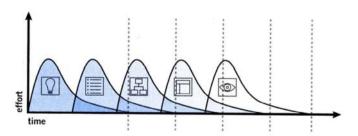
"User centered design" is not a specific technique or process but rather a general design philosophy that aims to better understand the needs of users and facilitate their requirements. This approach has become widely adopted by website designers and software developers that recognize the importance of understanding what users want and designing to meet their needs. The main difference from other design philosophies is that rather than forcing users to change their behavior to suit a particular product or environment user-centered design attempts to design around the needs and desires of users.

Breaking Down the User Experience

There are a variety of factors that can influence how people perceive and engage with online platforms, from the way the surface looks to the underlining system architecture. Considering all the factors that influence a user experience can be quite overwhelming. In the book *The Elements of User Experience Jesse Garrett* (2003) recommends breaking down the complex task of designing an online platform into separate areas that can be addressed individually. Garrett identifies five separate elements that combine to create the full online user experience. These elements are: strategy (the purpose of the platform), scope (the functionality of the platform), structure (the underlining architecture), skeleton (the interface) and surface (the visual appearance).



The above diagram by Jesse Garrett (p.24, 2003) breaks down of the online user experience into five separate elements.



Garrett (p.27, 2003) recommends starting with the most abstract elements and working towards to the most concrete overlapping the development of each element.

For this project I have employed Garrett's model with some minor tweaks. As I am developing an online platform without a pre-existing identity I have included identity design as a separate element that needs to be addressed. Additionally, I have included an informative test case as an important part of my process, and I have changed the terms that Garrett uses so they describe a process rather than a result (for example Garrett uses the term 'skeleton' where as I use the term 'interface design').

In Garrett's model each element has a dependant relationship with the previous element. For example, the interface design cannot be completed until the structural design is finished and the structural design cannot be completed until functionality has been finalized. Understanding these dependencies helps to define a logical process for tackling the challenge of designing an online platform. Garret recommends starting by solving the most abstract elements of a project and then moving towards more concrete elements. Garret recommends overlapping the process of designing each element as subsequent elements can occasionally make it necessary to rethink the design of previous elements.

Following the model outlined by Garret my process also starts by addressing the most abstract elements and gradually progressing towards the most concrete elements. For the sake of discussion I have separated the various elements that I am addressing into independent sections. However, the actual process of investigating and resolving each element has been much more intertwined.

Resolving Each Element

For each element I needed to produce a set of deliverables to demonstrate how that particular element had been resolved (such as a list of brand values, a sitemap, or a wireframe prototype). In order to produce these deliverables I have employed a range of techniques depending on what needed to be addressed. Some of these methods have included focus groups, test cases, moodboards, wireframes, prototyping and research into existing literature. I will discuss the particular techniques that I have employed in more depth as I discuss each element.

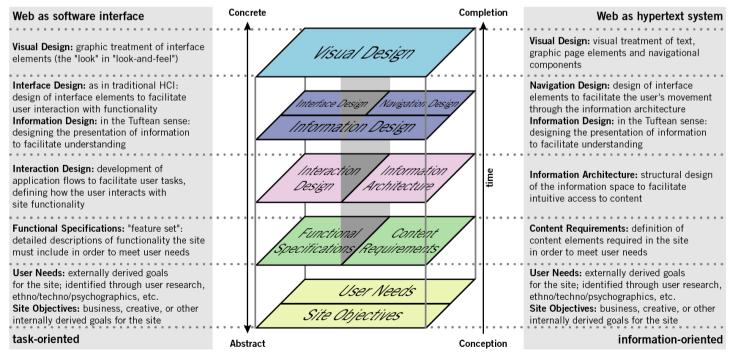


Diagram by Garrett explaining the differences in approach between task-orientated web applications and information orientated websites

Understanding the Challenge

Why is this platform being developed?

What Needed To Be Resolved

In order to develop an online platform that meets the needs of it users and produces desirable outcomes it is important to understand the reasons why it is being developed and the problems that it is trying to solve. Once these issues have been identified and articulated it can provide a foundation from which to evaluate the effectiveness of any proposed designs.

Techniques For Solving This

To find out why a platform is being developed Garret recommends asking two basic questions: 'What do we want to get out of this site?' (the site objectives) and "What do our users want to get out of this site?" (the users' needs)(p.40, 2003).

Identifying The Site Objectives

Typically the site objectives are provided by business or organizational goals. However, in my case, my research question provides me with a clear objective for this platform: To harness user contribution in order to produce public art.

Identifying User Needs

To identify the needs of potential users I had to establish who my target audience was and find out what their desires were in regard to the platform I was creating. To do this I have used the process of creating personas to help identify my target audience and then held a focus group to better understand the needs and motivations of individual users.

Identifying The Target Audience

Garrett recommends creating personas (also known as user profiles) to help designers think about the different people that will be using a platform. Garret describes personas as fictional

characters intended to summarize the attributes of many different users (p.54).

Based on my personal knowledge of the intended audience I developed 6 different personas. For each persona I constructed a range of demographic and psychographic information to reflected my target audience. These details included their age, occupation, interests, aspirations, computer use, motivations for contributing and the sort of artwork that they typically produced.

From this exercise it has become apparent that I am designing a platform primarily for local art and design enthusiasts: creative people that might not be professional artists however enjoy creating art as a hobby or passion.



One of six personas developed early in the design process to help define a target audience

Talking with Potential Users

The process of creating personas was useful for identifying who the target audience was. However the details it produced were limited by my own assumptions and experience. In order to gain a broader understanding the needs and desires of potential users I decided to run an exploratory focus group with a selection of people that reflected my target audience.

Kuniavsky recommends focus groups as a great way to gain insights into the attitudes and perceptions of users (2003, p.2001). While the information gained from focus groups is not as quantifiable as large surveys it is an easy and inexpensively way to reveal a target audiences desires, experiences and priorities.

Following the guidelines that Kuniavsky outlines in his book Observing The User Experience I set up a small focus group to explore what people thought about the existing methods for creating public art as well as their thoughts about online platforms that encouraged user contribution. This discussion invited participants to share their views and experiences as well as asking what they wanted out of the proposed online platform. The main goal of this focus group was to discuss participant's views and desires regarding the proposed platform in order to identify their needs.

Participants were selected through indirect personal contacts to reflect a range of potential users. This included amateur artists, design students, an art graduate and a supportive outdoor media owner. So that participants could talk in depth about their views and experiences the focus group was limited to 6 people.

Response from the Focus Group

The response from participants reflected a number of earlier assumptions as well as identifying needs that I had not considered. As expected, most participants noted that the desire for self-expression was a key factor for why they wanted to produce public art. Some of the participants indicated that they had previously done street art because they enjoyed seeing something they had produced out around town.

However, another key reason for producing public artwork not considered was the desire to 'be part of something'. When I talked with the focus group participants seemed most excited by the idea of collaborating and working with other likeminded people. Joshua Porter explains that attachment to a group is common reason why people participate online. "You can find a lot of people interested in the same weird things you are" (p.122 2008).

"It would be choice if you could do stuff in teams"

- Focus Group Participant

Another desire expressed was the ability to do site specific work. Participants seemed more excited by the prospect of creating artwork for a particular location than creating non-specific designs that could be placed anywhere.

Participants also felt that it was important that people were able to make mistakes and do "crappy stuff" in order to develop and get better. When shown an overseas competition to design a series of art billboards some of the participants said it would be too intimidating and wouldn't have entered.

Summarizing The Purpose

By articulating the site objectives and identifying the needs of potential users I am able to summarize the issues this online platform intends to address. The primary purpose of this platform will be to harness the creative talent of local art enthusiasts in order to produce public art. To satisfy the needs of users it is important that this platform provides a sense of participation and allows people to collaborate and get involved alongside others.

Identifying Core Functionality

What is this platform going to do?

What Needed To Be Resolved

Having identified what issues this online platform needed to address the next challenge was to identify how this platform was going to tackle these issues. This meant deciding what the core functionality of the platform should be.

Why This Is Important

The core functionality or purpose dictates the scope of the entire platform. Porter observes that most successful applications excel at doing one activity and doing it well (p.25, 2008). For example the core function of Flickr is sharing photos. Having a clear primary function helps to prioritize what features are most important and prevents platforms from becoming bloated with unnecessary features.

Techniques For Solving This

In order to determine what the most appropriate core function would be I developed and evaluated a variety of concepts. For each concept I outlined its basic functionality using a prioritization method described by Joshua Porter (p.23, 2008). After identifying how each concept worked I proceeded to evaluate how well they addressed the issues I was trying to resolve. Based on feedback from potential users I progressed through a number of different concepts and eventually settling on the most promising direction.

AOF Prioritization Method

The prioritization method described by Joshua Porter is referred to as the 'AOF method'. It is intended for designing social web applications and is made up of three general steps. First

identify the primary activity (the main thing users do with the platform), second identify the 'social objects' (the content that users interact with), and third identify the main features set (how users interact with the social objects). Identifying these three things gives a good conceptual understanding of what a platform does and provides a solid foundation for further development.

Concepts for Core Functionality

The initial concept for this platform was intended as a way to upload and share designs with others so they could download and reproduce them on the street. However, after talking with potential users it was apparent that they weren't that motivated to just upload designs in the hope that someone might print it off and put it up on a wall. People were much more interested in the promise of a real world space than uploading designs without an intended outcome.

This feedback led to a rethink of what the core function should be. At first I tried adding more functionality to the initial content sharing concept. This included adding the ability to run contests, and list locations that are available to paint. The feedback towards this additional functionality was much more positive. People liked the idea of collaborating with others and having the opportunity to create site-specific work. However this made the site overly complex and without a strong focus it would become too cumbersome. Upon reviewing the features that people preferred I came up with more ideas for how the platform could operate.

The second concept grew out of peoples interested in creating

Concept 1: "Sharing Designs"



Primary Activity: Sharing downloadable designs and other artwork

Social Objects: Downloadable designs

Main Feature Set: Upload designs, Download designs, Rate designs

"Listing Locations"



Primary Activity: Connecting artists with spaces they can paint

Social Objects: Spaces (or locations) available to paint **Main Feature Set:** Submit a space, Reply to a space

Concept 3: "Collaborating on Projects"



Primary Activity: Collaborating with others on projects

Social Objects: Art projects

Main Feature Set: Run a project, Submit ideas to a project

site-specific artwork. This concept viewed the primary function of the platform as a directory of locations that people were invited to paint. If a landowner had a space (such as a wall, dairy or billboard) that they were willing to let someone create a design for then they could advertise that opportunity and creative people could submit their interest. From what people had told me it seemed that users would be much more willing to contribute their creative skills if there was an obvious goal in mind. The feedback towards this concept was mixed. People liked the idea of site specific work but wanted the ability to collaborate in teams.

This lead to the final concept for the core function of this platform, which encourages people to work with others on 'projects'. A project is a challenge of some sort. It could be an opportunity to create a site-specific work, or design artwork in

response to a particular topic. Based on feedback from potential users this concept best addresses the issues I am trying to tackle. This concept treats the aim of creating art in the real world as the primary focus rather than a secondary function. It motivates greater contribution by giving people a challenge. It allows people to connect with like-minded people and 'be part of something'. And this appears to be the most desirable focus for potential users.

Result

The core function of this platform will be to collaborate on 'projects'. I have selected this as the primary focus for this platform (rather than sharing designs, or listing locations to paint) because it appears to be the best way to motivate contribution and produce public art.

Identity Design

What should it be called?

What Needs To Be Resolved

Garrett's breakdown of the online user experience assumes that a name and brand identity have already been established. However as I am developing this platform from scratch I have included the development of a name and brand identity as a separate area. The purpose of a brand identity is to establish how a product (or online platform) should present itself. This is not the simply how the logo or visual style should look (which I will address later) but rather an underlying set of conceptual associations that the platform seeks to promote.

Why This Is Important

The identity that is presented to users plays a huge role in framing how users perceive and experience a platform. Garret notes that any interaction with an online platform (from the layout of the site to the language that is used) creates an impression with users about the platform (p.42, 2003). In order to attract the right audience and encourage voluntary contributions it is important present the right image. By defining a set of brand values designers can identify exactly what sort of impression they want users to have and create designs accordingly.

Techniques For Solving This

Before choosing a name for the platform it was necessary to identify what brand values (or conceptual associations) this name should communicate to users. In order to establish this I answered a common set of branding questions and distilled this into a brand pyramid. Leslie de Chernatony, and Malcolm McDonald outline this process in their book *Creating Powerful Brands* (2003). This process starts by identifying the rational

attributes (or functionality) of a product and then extrapolating a brand personality and brand essence that will appeal to the selected target audience by building upon the rational attributes of the product

Answering Brand Questions

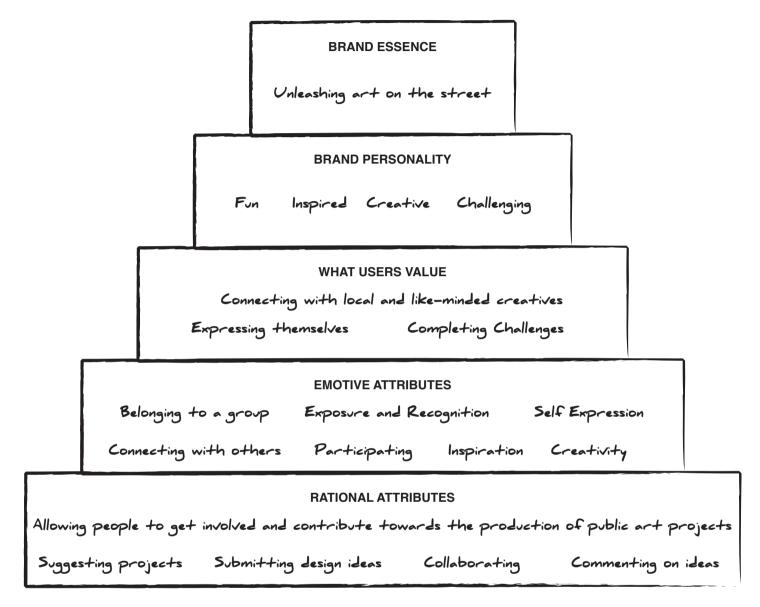
The branding questions I needed to address included:

- Who is this platform being design for?
- What do users view as the most important attributes?
- How do these attributes benefit users?
- What makes this platform different from existing platforms?
- What sort of personality is central to the brand?

Unique Difference:

Artwork doesn't stay online, it goes out into the real world

I had previously identified the target audience as local art and design enthusiasts, who create art as a hobby or passion. The most important attributes for users included: participating in the creation of art, getting art into public spaces and collaborating with mike minded creatives. The benefits to users included; getting exposure and recognition, influencing others,



Brand pyramid created to identify desirable qualities to promote

and belong to a community. A major difference that makes this platform unique from other online platforms is that the artwork doesn't just stay online it goes out into the real world. The primary purpose of the platform involves collaborating on interesting creative projects and this has lead to a brand personality that is fun, creative and inspired.

Brand Pyramid

Having identified the various traits of the proposed platform it was then possible to construct a brand pyramid. A brand pyramid identifies the attributes and characteristics of a brand by starting with the most concrete and rational attributes at the bottom and building up towards an emotive personality and essence that typifies the identity of the brand.



Initial ideas for possible brand names

Coming Up With A Name

After identifing the rational attributes and emotive personality of the proposed platform it was now necessary to come up with a name that communicated these ideas. The name of this platform would also need to be the URL (or web address) so it was important that it was not already taken. This significantly limited my choices, as popular domain names are increasingly harder to find.

My process for coming up with names involved generating many ideas and then evaluating how well each worked. This meant exploring how they sounded verbally, what it looked like visually, how well they communicated the brand identity and if the URL was available to purchase.

The list of potential names included: Out There, Off The Wall, Big Picture, Gawk, Humongous, Plug, Roar, Let Loose, Emerge, and At Large. After talking with potential users it was decided to go with the name 'At Large'. The URL for this domain was available; it is easy to spell and tell others about, and it successfully conveys a number of brand attributes. To help better align the name 'At Large' with the desired identity this name was later paired with the tagline 'unleashing art on the street'.

Result

The final brand identity seeks to promote itself as a fun, inspired community where creative people can come together and challenge themselves. Unlike existing creative online communities (like Deviant Art or Flickr) this platform is unique in that it aims to produce art in the real world, out on the street for everyone to see. The name 'At Large' supports this idea of creating highly visible artwork and taps into a desire among users to see their artwork up around the city.



Early visual experimentation with the name 'At Large'

Informative Test Case

What is involved and what can be improved?

What Needs To Be Resolved

In order to develop a platform that effectively meets the needs of potential users it is important to have a good understanding of who and what the platform is trying to help. I had previously used focus groups as a way to uncover the views and perceptions of potential users but Mike Kuniavsky (the author of Observing The User Experience) notes that users don't always know what they need and in many cases it is better to observe them rather than ask them. As a potential user myself I was also unsure what was required. To help understand what is involved in coordinating a collaborative art project I organized one as an informative case study to observe what's involved and what could be done better.

Why This Is Important

Observing and analyzing real life situations is critical for understanding how people behave in context and the situations that need to be addressed.

Techniques For Solving This

Without much knowledge of the best way to coordinate a collaborative art projects I decided against mapping out a fixed course to follow. Rather than adopting a predefined process I decided to see what would evolve naturally. This agile approach allowed me to start right away and see what did and didn't work along the way.



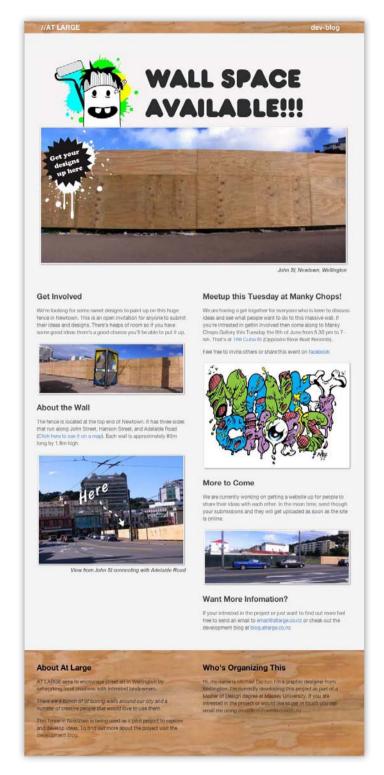
Photo of the fence on John St in Newtown used for the case study

Finding a Space

Shortly after deciding to run an informative case study I noticed a large fence surrounding a construction site in Newtown. It was a good opportunity to do some artwork on the space so I got in touch with the landowner. I asked if they would be happy for me to organize a collaborative art project using the space and they were more than happy to offer up their space. They did not impose any restrictions on what sort of artwork we could put on the fence so long as it was appropriate for public display.

Promoting the Opportunity

With a space sorted out I required a project to utilize it. Although I already had some ideas I decided to hold a brainstorming session and see what other people had in mind. I created a quick website to advertise the opportunity among my friends and other local creative people who might be interested. I also advertised on Facebook and the Massey Design Forums with the promise of pizza and the opportunity to have a say in what we put up on this wall.

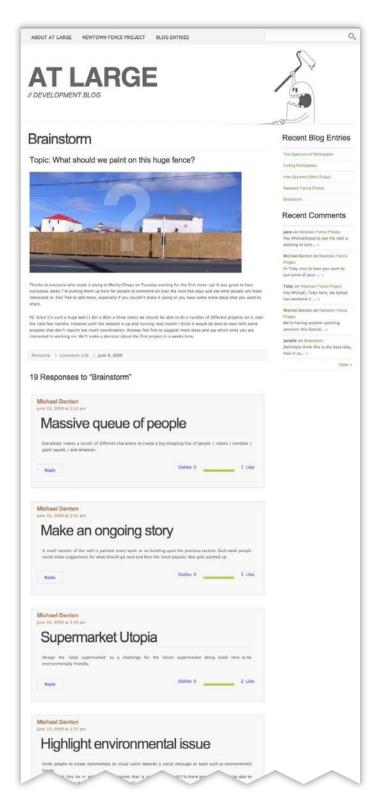


Simple webpage quickly created to promote the opportunity for people to get involved in creating some artwork for this fence.

Brainstorming Project Ideas

Roughly a dozen people showed up to a brainstorming session at Manky Chops (a downtown street art gallery) to answer the question of what to do with the fence. Without a set structure for the brainstorming session we initially started scribbling things on sheets of paper then ended up writing out most of our ideas in words. By the end of the night we had moved to a computer with a large screen and people we suggesting project ideas while I typed them onto a blog that I had set up for the project.

People were still coming up with ideas at the end of the brain storming session so we decided to keep the brainstorm going online for the next week. I added an improvised voting widget to the comments section on my blog and encouraged people to keep adding more suggestions and vote for the ones they liked the most. After a week of feedback some of the more popular ideas included making a massive queue of people waiting in a supermarket line, doing a freestyle graffiti wall, having an ongoing story that was updated each week, and creating an art gallery on the street. After hearing everyone's feedback I ended up writing up a much more detailed brief for creating an outdoor art gallery. As well as being the most popular this brief had an advantage in that it was fairly modular allowing people to work independently of each other without needing much coordination.



Brainstorm on the project blog.



AT LARGE // PROJECT 1

JUNE - JULY 2009



THE CHALLANGE

YOU ARE INVITED
TO CREATE YOUR
OWN SECTION OF
AN 'ART GALLERY'
TO PAINT UP ON
THIS MASSIVE
FENCE IN
NEWTOWN.





'WALLPAPER'

The wall is currently a boring shade of white so feel free to create some interesting stencil patterns to use as your 'wallpaper'. The fence on John St is 1.8m high and approximately 80m wide. All designs should be life sized (at a scale of 1:1) so that they work along side everyone else's.

ARTWORK

Unlike snobby art galleries that hang 'canvases' on their walls you will need to paint your artwork directly on the fence and frame it using a stencil. You can choose whatever size frame you prefer. You are welcome to let your artwork break out of its frame and go for a walk so long as your section of the fence still resembles a gallery wall. The subject matter for your artwork is completely up to you so go crazy and have fun with your designs. If you are short of ideas it may be useful to consider the location of this fence and the audience that will be viewing your work.

CHARACTERS

If you want to have some characters staring at your painting (or giant quid trying to eat your artwork), that's totally cool. We can possibly et a hold of a laser cutter if you need to create large stencils too.

EADLINE

se aim to have your designs ready by Friday the 10th of July.
Ian to begin painting up designs from this date however the
times and dates will vary depending on the weather and when
e are able to attend.

UP

mailing list to keep up with important announcements. Just send an email to email@ atlarge.co.nz and ask to join the mailing list.

MORE INFO

Get in touch if you have any questions or need more info.

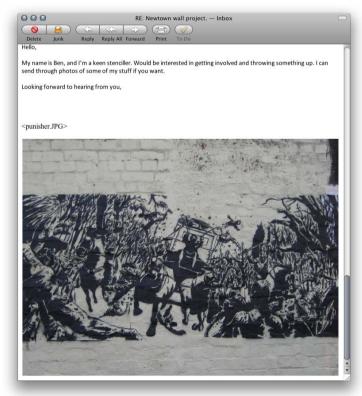
Website: blog.atlarge.co.nz Email: email@atlarge.co.nz

this on to anyone that might be keen.

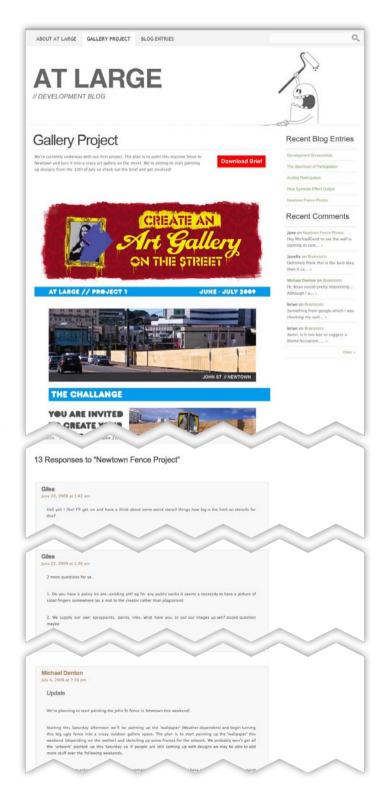
Brief that was created for the project

The Brief

A pdf of the brief was emailed out to everyone and also posted on the blog with a section for people to comment below. Over the next few weeks I received a number of comments and questions about the brief both on the blog and via email. Comments included people saying that they were keen to get involved. Questions included people asking as how large artwork can be and if they had to supply their own equipment. As the brief was a fixed document I let people post a string of questions and answers below it. After a few weeks the comments section got unmanageably large so I ended up creating a new version of the brief and cleaning up the comments. However, this meant that the older comments were no longer accessible. Ideally I would have liked comments to be less obtrusive once they had been resolved but not be deleted entirely.

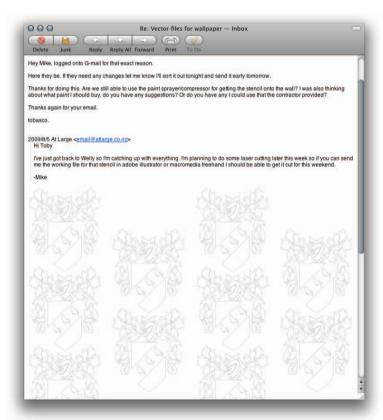


One of several emails from people wanting to get involved



Screenshot of comments below the brief on the blog





Email discussing the design of a stencil

Developing Designs

Since people were developing their own artwork and wallpaper designs independently at home I wasn't able to directly observe this process for everyone. However, I was able to observe some friends developing their designs as well as taking part in creating my own designs.

As with most creative projects I found that people typically started by first trying to understand the challenge. Although a brief was circulated to outline the basic challenge I still received a number of questions from people asking about things that I had not thought to include.

Next, people typically went out seeking inspiration and ideas. While some of us shared things via email and in person this was mostly an individual activity. Personally, I spent some time exploring baroque wallpaper patterns. I searched for patterns online as well as exploring books at the library and rummaging through old textiles. I came across a number of wallpaper styles that I liked and began exploring how to turn them into stencil designs.

Most of the wallpaper patterns were being produced on computers so they could be turned into stencils using a laser cutter. This made it easy to tweak designs and make small changes. Rather than creating a finished design straight away people typically created a number of different versions leading up to final design. In my case the pattern I created needed to be modified a few times in order to get the stencil looking right. People usually got feedback about work in progress directly from their mates and some people even emailed me their unfinished designs for feedback and approval. I had not set up anyway for people to share work in progress online, however, so people were unable to get feedback from a wider audience.

Once people had their designs ready they either got in touch with me via email or waited until we had a painting session down at the fence.

Getting Equipment

Since the wall was quite large (1.8m x 80m) we were going to need a fair amount of paint and other equipment. Being on a tight budget enquires were made I enquired with the local paint shop about reusing unwanted paint but found they could only supply us with grey paint (for painting over graffiti). So I asked everyone involved with the project if they knew anyone with unwanted house paint lying around. This attracted a number of generous contributions from people (showing that designs aren't the only thing that people can contribute). I also asked the landowners if they might be able to help out with some of the cost of equipment and was surprised to find that they were more than willing. This allowed us to buy an air compressor and use acrylic paint for doing stencils as well rather than spray cans.

The First Painting Session

The date originally planned for the first painting session had to be postponed due to bad weather. However, the next Saturday turned out to be fine so an email was send out to people that morning at short notice. People were invited to meet up for a coffee in the morning (11am) and start putting up some wallpaper designs that afternoon. A couple of people who knew about the project turned up and after sorting out our painting equipment we eventually started painting wallpaper stencils onto part of the wall. Most people passing by were curious about what we were doing and a few people asked how they could get involved.



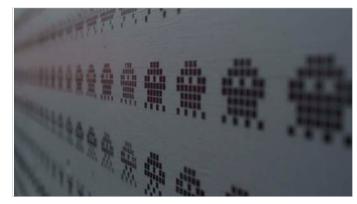


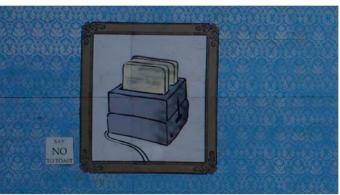






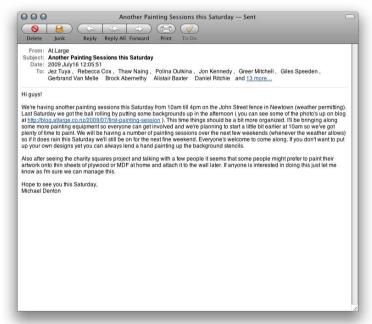






The Second Painting Session

The second painting session was much more organized. A reminder email was sent out the day before rather than in the morning and around a dozen people turned up for different parts of the day. I had also brought more painting equipment this time so that more people could help out. Some people didn't have any designs they wanted to put up but they we're happy to help other people paint up theirs. Once some of the wallpaper patterns were up on the wall a few people were able to start painting their artwork overtop.



Email sent out to tell people about the second painting session

The Third Painting Session

By the third painting session more people had found out about the project and wanted to get involved. Some people preferred to drop by and grab a frame to paint at home where as other enjoyed painting directly on the wall. I noticed that painting directly onto the wall was a very social event. Many people would stop to chat and the remarks from the public were hugely satisfying. But if people were taking frames home to paint they wouldn't get the satisfaction of seeing people admire their artwork. This social reward is often an important reason why people make voluntary contributions so in order to motivate contribution it is important to design a platform that allows this social feedback to be passed on to contributors.









Regular Painting Sessions

The Saturday painting sessions become a regular event for a number of weeks whenever the weather permitted. Eventually the entire wall was covered with various wallpaper patterns and countless people had picked up frames to paint at home.































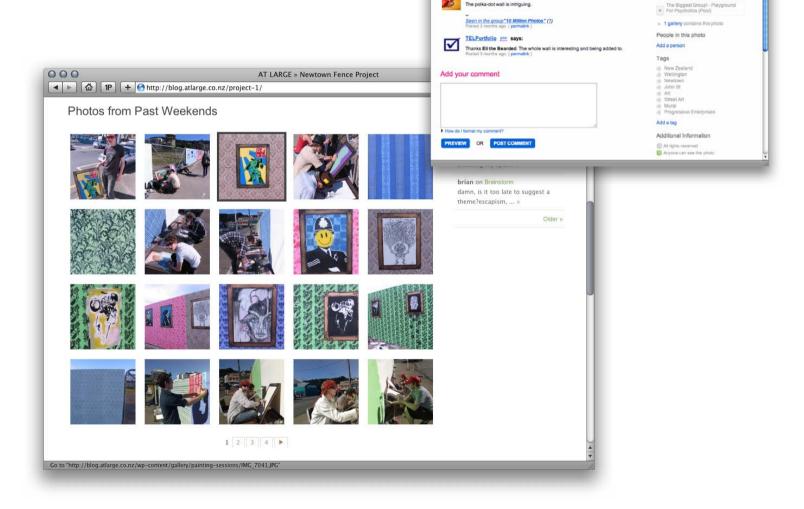






Public Feedback and Engagement

As the project was in such a public space it attracted a lot of attention. Regularly people would stop to look, comment and even take photos. This highlights that the act of participation doesn't need to stop at just the creation. Social media platforms demonstrate how people can participate even after content is created. The simple blog created for this project did not yet offer the ability to facilitate conversation around the specific peices of work that were being created but some people had uploaded photos to websites such as flickr where people could make comments and discuss.



20091012 Collective Art 035 on Flickr - Photo Sharing!

Q- Co

- TEL Portfolio's photostman

Uploaded on Oct by TELPortfello

- Murais (Set)

◆ http://www.flickr.com/photos/98712881@N00/4038826291/

12 October 2009 - Panels and other decorations on the fence on the corner of John St and

Eli the Bearded pro says:

20091012 Collective Art_035

flickr MAHOO!

Findings

The process of running an informative case study helped to realise a much better understanding of what this platform needs to facilitate. Although it's difficult to state everything that I've learnt from this process I will outline some of the key things I have observed.

First of all it demonstrated that people do in fact want to participate. Before I started this project some people had asked who would want to freely contribute to public artwork. Until running this test case it was difficult to tell if anyone was actually interested in contributing to artwork around the city. However, the response from people wanting to get involved with this case study has been outstanding. Although this project was not been widely promoted and the organization has been improvised over 40 people have been involved in contributing wallpaper designs, artwork, paint and effort.

The key reason for running this test case was to identify potential requirements for the proposed online platform. Rather than blindly enforcing a structure that may not have been appropriate I have sought to identify what the natural circumstance is and how this can be supported. The core functionality envisioned has been a way for people to collaborate on art 'projects'. I imagined that underneath 'projects' the next important content type would be concepts or design. This case study has also highlighted the need to facilitate other things such as events, discussions, brainstorms, and photos. Although the platform needn't adopt these specific terms it is important that this functionality be available.

Structural Design

How should the underlining structure be organized?

What Needed To Be Resolved

Talking with users and observing them in context has helped to identify the key components that this platform needs to incorporate. The next stage was to develop a structure that could support these requirements. The structural design defines the underling architecture of a platform. Traditional 'read-only' websites (without much user interaction) typically refer to the structural design as the information architecture (how people access information). The structure of traditional informationbased websites can be easily addressed through the use of site maps. However, this platform requires users to not only find information but also contribute so it needs to consider how people will achieve particular tasks (such as submitting an idea to a project). In software development this is called interaction design. Successful interaction design seeks to understand what tasks users want to achieve and then design systems that accommodate their behavior. Expressing what users want to do and the structure that facilitates this can be achieved flow charts.

Why This Is Important

The underlying structure is typically considered one of the most important elements for making use of voluntary contribution. Scott Cook, author of The Contribution Revolution (2008) notes that organizations that successfully harness voluntary contributions have deliberately designed 'user contribution systems'. Without a structure that supports meaningful contribution there is no way to make productive use of the creativity and talent that people are willing to offer.

Techniques For Solving This

In order to resolve how this platform should be structured I have observed the tasks that need to be facilitated and experimented with different structures to see what would be most appropriate. This has resulted in the creation of a sitemap intended to represent the underlying architecture of the platform.

Structure shapes how people can contribute

Process

The AOF method (outlined by Joshua Porter) for developing social web applications provided a solid starting point for how this platform might be structured. I had previously identified that 'projects' should be the primary content type but the functionality that a project required still needed to be resolved.

Using the case study as a reference I mapped out the various things that needed to be facilitated. Some of the main activities included issuing a brief, creating and sharing designs for a project, organizing events, and documenting the development of a project.

While the case study was useful for getting a deep understanding of what was required for one particular project I also needed to consider what other projects might demand. As a

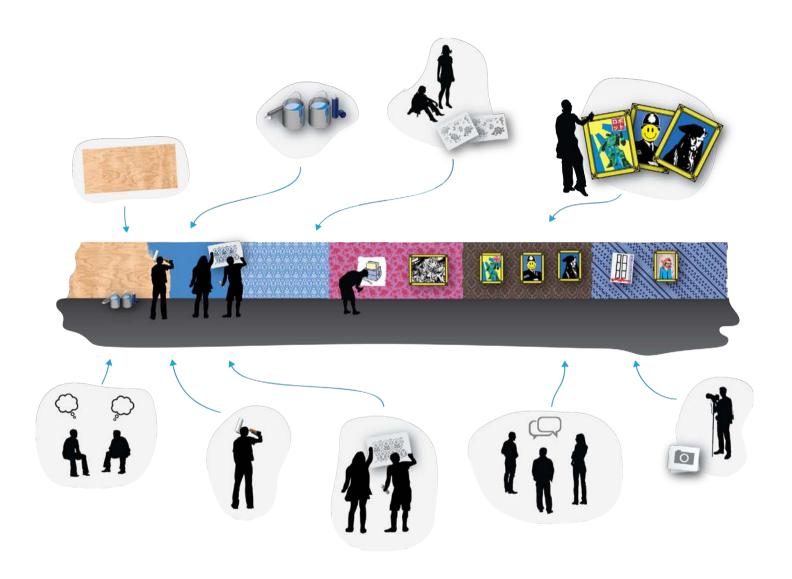


Diagram (created by myself) to illustrate that various ways that people had contributed to the Newtown Wall case study.

way to consider a wider range of potential projects I generated a number of other hypothetical projects. These were potential projects that could be run in the future. After brainstorming a range of ideas five distinct projects were chosen to reflect a variety of approaches. Some of the projects were ongoing while others had fixed timelines and due dates, some projects had specific locations while others were independent of a location and some projects resulted in only one design being selected while others allowed many designs to be combined together. The common link that they all had was the ability for many people to contribute.

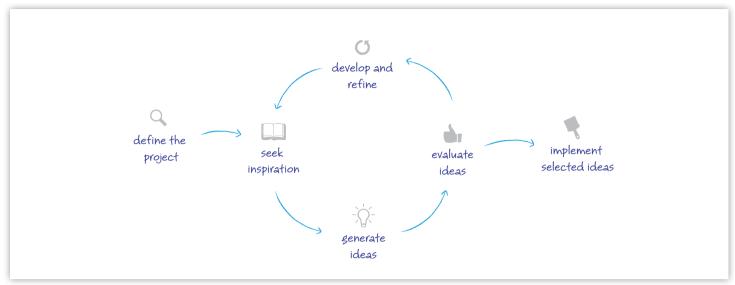
In order to develop a structure that would accommodate a wide range of projects I mapped out the process I imagined each project would require. For example a project titled Robots vs. Zombies required contributors to make either a robot or a zombie stencil and then meet up for a painting session where the stencils would fight each other. In contrast to this a project

titled Giant Scribbles project was ongoing. Contributors were invited to upload fanciful drawings and each week the most popular designs would be printed and put up around the city.

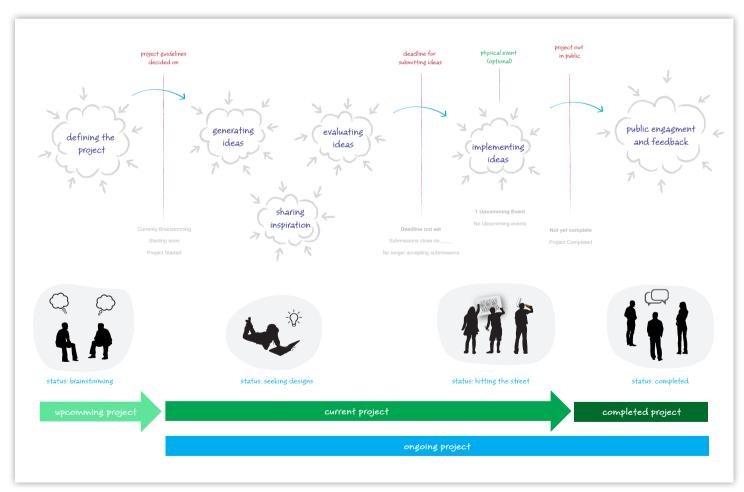
After mapping out the process for these projects I developed a basic guide that would accommodate a range of different projects. The flow chart I developed follows a standard creative process with each stage in the creative process opened up for people to contribute. These stages are: defining the project, seeking inspiration, generating ideas, evaluating ideas, refining ideas and implementing ideas. In addition to these creative steps documenting and discussing a project were also included. By itself this flow chart does not define a structure but identifies the processes that needs to be facilitated in order to successfully crowdsource an entire creative project. With an appropriate structure it should be possible to involve people in every stage in the creative process and allow them to make meaningful contributions.



Above: Hypothetical Projects created as a way to think about the required functionality



Basic diagram of a creative process



Outline of the general process I established for running a collaborative art project.

Designs

Within a creative project I found that much of the necessary interaction revolves around 'ideas' or 'designs'. Designs are generated, designs are evaluated, designs are refined, designs are implemented and designs are discussed. My initial concepts for how to structure the platform allowed these designs to exist independently from projects. This would let people upload a design without submitting it to any project and then have the option to add it to as many projects as they like (similar to the relationship between photos and groups on Flickr). While this functionality was initially promising it presented a number of potential issues. Allowing designs the ability to exist independently detracted from the platform's focus on collaborating on projects. It also made the process of submitting a design to a project more complicated and required a much more complex navigational system to allow designs to belong to multiple projects.

Considering the difficulties this would add to the user experience I decided it would be more effective if 'designs' were presented as subcomponents nested within 'projects' rather than independently. Making 'projects' the main content type and everything else sub components of a 'project' helped to provide users with a clear focus. This decision is supported by Jeff Howe's observations (2007) which noted that a major reason why some crowdsourcing efforts fail is due to a lack of leadership and direction. By creating a hierarchy that nests designs within projects users are directed to focus their efforts on achieving particular projects. This structure supports successful collaboration and also allows a much simpler visual interface.

Discussion

The case study revealed that the desired level of discussion around a project was much more than a simple comments page could handle. People wanted to ask questions, discuss general ideas, share inspiration, and have other conversations related to a project. A simple list of comments could not handle directed and meaningful conversations. In order to turn users comments

into meaningful discussions I included a 'forum' into the structure of each project. The idea of a 'forum' is a concept that most users are familiar with and encourages people to have focused discussions around topics rather that just making comments.

Events

The case study also highlighted that there is a limit to what people can contribute via the web. In order to implement ideas people need to attend physical events. Previously I had sent out announcements to inform people about events however giving events a dedicated content type would allow events to be separated and found much easier than if they were included among other announcements.

Blog

The final content type that I have included within the structure of a project is a 'blog'. As part of the test case we had used photos as an easy way to record each painting session but it didn't seem logical to limit the documentation of a project to just photos. After experimenting with photos, videos, and articles written about events, it was apparent that the mixed media format of 'blog entry' would allow a flexible way to document events and the development of a project. Rather than just uploading photos a blog encourages people to document projects in a more meaningful way and allows conversation around stories and events rather than individual pieces of media.

Result

The final result is a structure with a strong emphasis on tackling creative projects. This provides people with a clear focus to aim for. Projects are treated as the primary content type with designs, discussions, events, and blog posts as sub content. This structure supports the range of contributions people are willing to offer and allows users to suggest designs, share inspiration, discuss projects, organise events, and engage in a variety of different ways.

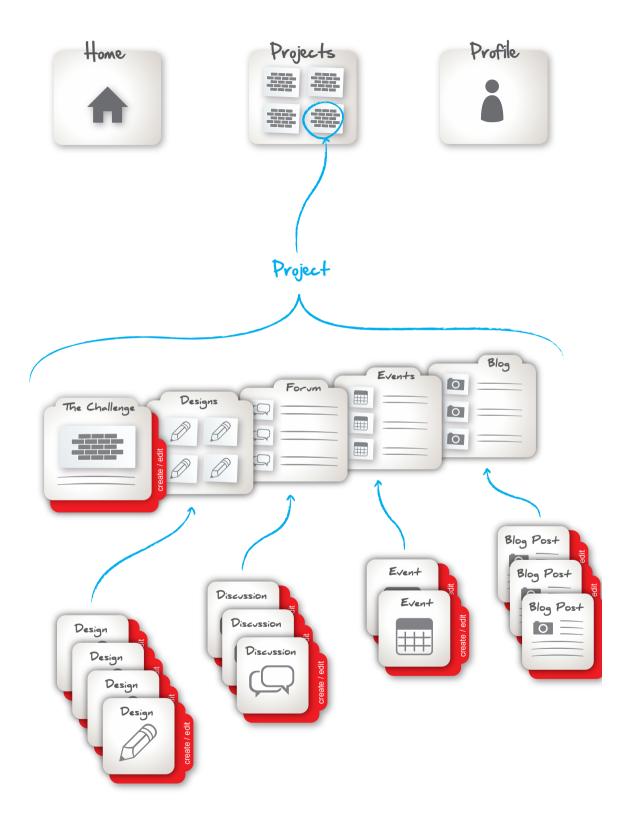


Diagram intended to illustrate the final structure of the platform

Interface Design

How should interface elements be arranged?

What Needed To Be Resolved

Having addressed the underling structure the next challenge was to resolve the user interface. The goal of interface design is usually to make user interaction as simple and efficient as possible. This involves considering how various elements are arranged, the language that is used, where things are positioned, and the navigational metaphors that are employed.

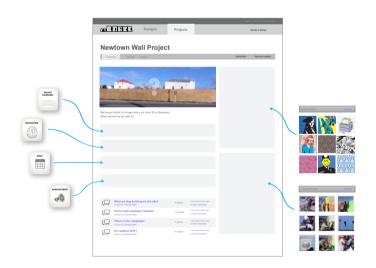
Why This Is Important

The interface affects how easy it is for users to interact with the platform. Steve Krug, the author of *Don't Make Me Think* states that a well-designed interface should be naturally intuitive to users (p.18, 2000). If an interface isn't obvious to users then they may struggle to achieve what they want. Dan Ariely, the author of *Predictably Irrational* reveals that the design of an interface can also direct users to behave in a particular way (p.6, 2008). He observes that people can make radically different choices depending on the interface they are presented with. In order to encourage voluntary contributions the design of the interface should make contribution easy and direct users to behave in fashion that is constructive.

Techniques For Solving This

In order to isolate the interface design from the visual style each page was developed using 'wireframes'. A wireframe is a rough illustration that shows the layout of a page. They are usually rendered with simple lines and default text so they do not appear to have any visual style associated with them. Creating basic wirefames has allowed me to rapidly explore and test a range of interface designs without needing to create finished

screenshots. Each wireframe has been deliberately created with consideration to how its design will affect user behavior. My aim has been to craft an interface that encourages users to contribute in a constructive fashion. Some of the factors considered include how page elements are arranged, the language that is used, the flow between pages and the options or defaults presented to users.



Early wireframe of main page for a project. Intended to act as a 'mini homepage' for each project.

Project I	Name				
The Challenge	Designs	Forum	Events	Blog	
The Challer	nge				Follow this project
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Layout

Garret states, "successful interfaces are those in which users immediately notice the important stuff" (p.120, 2003). In order to prioritize elements on a page I assessed the importance of various elements and created layouts that achieve this. An example of this prioritization is the layout of the challenge page within a project. This is the first page that users see when they view a project and is intended to give an overview of that particular project. The challenge is summarized with a quick one-sentence statement and then expanded below. Adjacent to this is an aggregation of all the most recent and most important content within a project. The latest designs occupies the most prominent position, then active forum topics, upcoming events, and recent blog entries. Older designs, inactive discussions, past events and old blog entries are still accessible but as they are less important they are not as visible on this page.

Language

Language plays an important role in shaping user interaction. Wherever possible the language used for the navigation is intended to invite contribution so long as it does not hinder usability. For example I have used adjectives to describe various actions on buttons such as 'upload a design', and 'start a new topic'. However I found that overusing words like 'browse' made it harder to scan the page when there are a number of links next to each other. For this reason the navigation at the top of each project is limited to one word description of the content.

Flow

A key part of interface design is considering how users will navigate around a platform. In order to encourage contribution it makes sense to create a process that is as easy as possible for users. To test how easy my wireframes were to navigate I created quick interactive prototypes. This process helped to address issues that were not immediately obvious on paper. One example of this was the process of rating designs. Getting users to rate designs is quite important as it makes finding the best

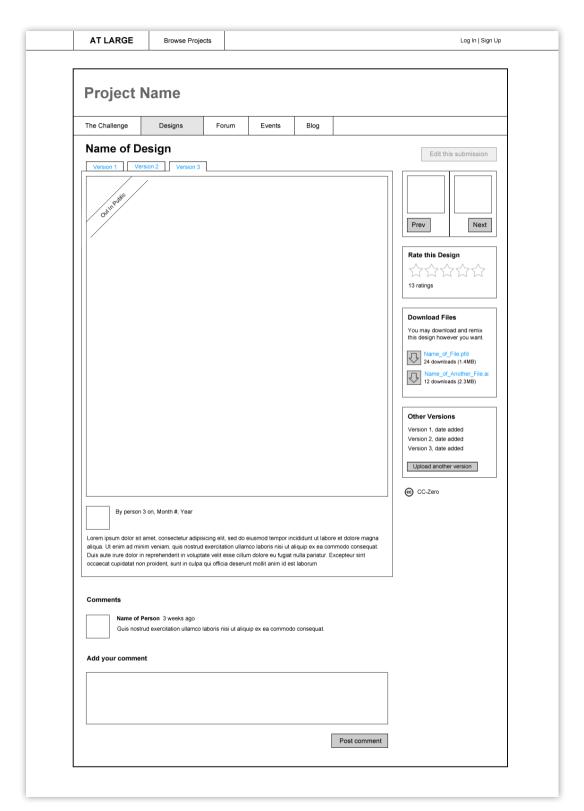
designs much easier. However, my early mockups made browsing and rating lots of designs incredibly tedious. Users had to navigate back to a list of designs every time they wanted to view a different design. In order to encourage users to view and rate more designs I added 'sideways' navigation. This is presented to users in the form of a previous and next buttons with thumbnail images of other designs. By placing the rating box just below this users are now able to easily browse and rate many designs with a minimum of effort.

Options and Defaults

The default options that are presented to users can have a significant influence over how they behave. Dan Lockton observes that many users will stick with default settings and so it is useful to set defaults that will favor constructive outcomes (Design with Intent Toolkit v.0.9, 2009). I have used default settings to encourage favorable outcomes by directing users to publicly share any working files they upload to a design. Setting the defaults to encourage open sharing promotes innovation by allowing other people to download and build upon designs.

Result

The design of the final interface aims to direct users to contribute in a constructive fashion. The layout prioritizes important elements, the language invites contribution, the flow reduces the hassle of contributing, and the default settings are intended to encourage innovation.



Example wireframe of a design within a project

Visual Design

How should it look?

What Needed To Be Resolved

The visual design (also known as the surface or skin of a platform) is concerned with how the platform is visually presented to users. Garrett states that the surface appearance is not just a matter of aesthetics; it's a matter of strategy (p.142, 2003). Ideally the surface should not only look nice but also support any intended communication objectives. Often this involves conveying a particular brand identity. However, Garrett notes that the visual appearance can also help to communicate ideas around how the underling platform operates.

The visual design affects how people perceive the platform

Why This Is Important

The surface appearance is the most visible aspect that users will experience. This sets the tone for the entire platform. Although the surface appearance doesn't affect the functionality (unlike structure and interface design) it has a huge influence over how users perceive the platform. If the surface appearance suggests than people can get involved then this is likely to encourage greater contribution.

Techniques For Solving This

Garrett suggests that instead of evaluating the visual design solely in terms of what is aesthetically pleasing, designers should focus on what it suggests to users (p.143, 2003). In order to develop an appropriate visual style for this platform I experimented with a variety of visual styles while considering what values and ideas needed to communicated. The deliverable for addressing the visual style is usually a set of templates or screen designs. These are intended to look indistinguishable from the final product but without needing to be functional.

Process

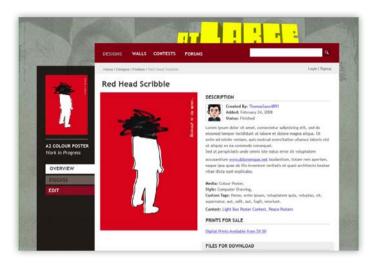
Garrett notes that creating a visual style often comes at the end of developing an online platform. However waiting until the structure and interface is finished before experimenting with the visual design can sometimes lead to unsatisfactory results. From an early stage in the development of this platform I experimented with different visual styles. Creating visual mock-ups alongside the interface design has allowed me get a better sense of how the interface will manifest itself and also take ideas that were inspired by the visual design and apply them to the design of the interface.

Most of my initial mockups were solely aimed at expressing the identity of 'At Large'. The name was displayed very prominently at the top of every page and it was clear that everything on the platform was under the domain of 'At Large'.

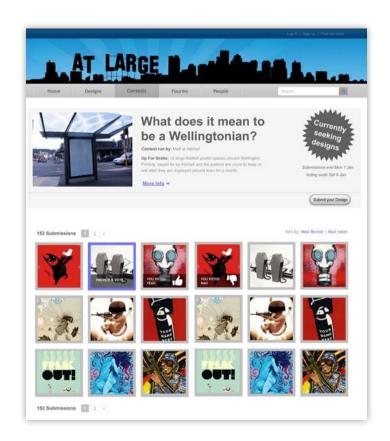
During the development process it became apparent that the identity of At Large needed to move away from being the center of attention. Instead of treating At Large as the primary focus I



Experimental mock up of a profile page



Experimental mock up of a design page













Digital moodboard helping to identify the desired visual style

started to think of At Large as a background tool that facilitated a variety of projects. This shift in thinking was communicated by altering the visual hierarchy. The prominent At Large logo was reduced to a small tool bar that hid away at the top of the page and individual projects were allowed to take center stage.

In order to give each project a unique visual identity I have allowed them to have custom banners that easily alter the feel of an entire project without using separate style sheets for each project. This makes creating a separate identity for a project much easier and avoids unsightly customizations to fonts and colour schemes (epitomized by myspace).

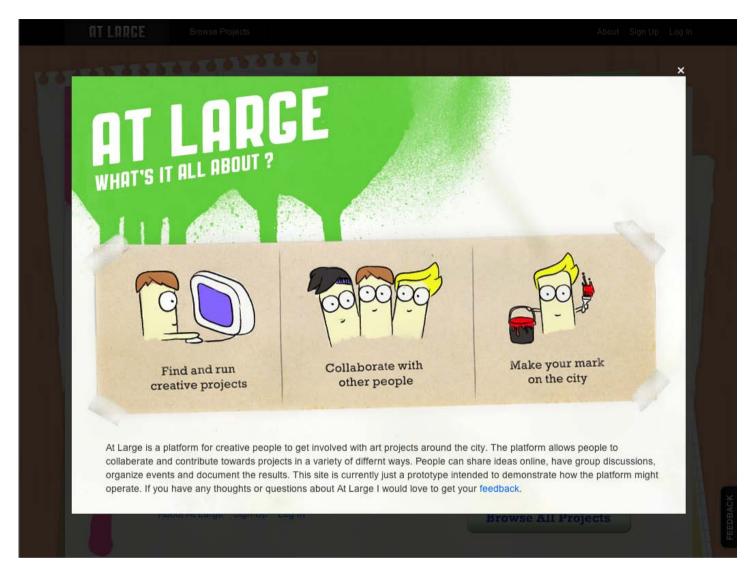
While customable banners allowed each project to have a unique visual style the platform still needed to have a general look and feel. In order to decide on the most appropriate direction I considered the strategic objectives that the visual appearance needed to address: It needed to be flexible enough to work across a range of different projects, It should promote the platform as creative, challenging and inspired, And if possible

the visual appearance should aim to encourage contribution.

After experimenting with a variety of visual styles using moodboards and mockups of screen designs I determined that these strategic objectives would be best achieved by creating an aesthetic that suggested the platform was in the active state of designing and creating stuff (rather than a polished set in stone look). This visual direction helps to promote the creative focus of the platform and suggest that people can get involved and participate in the creative process.

Result

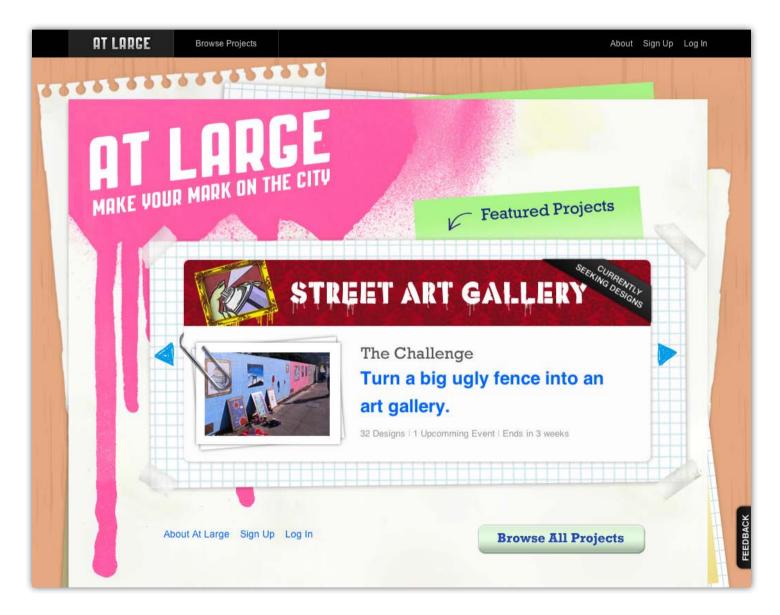
The final result presents a visual style that appears to be in the active state of creativity. This has been achieved by using scraps of paper and rough pencil sketches. To avoid overwhelming projects with a fixed visual style this 'creative look' has been toned down from earlier explorations to allow greater flexibility while still suggesting the creative nature of the platform.



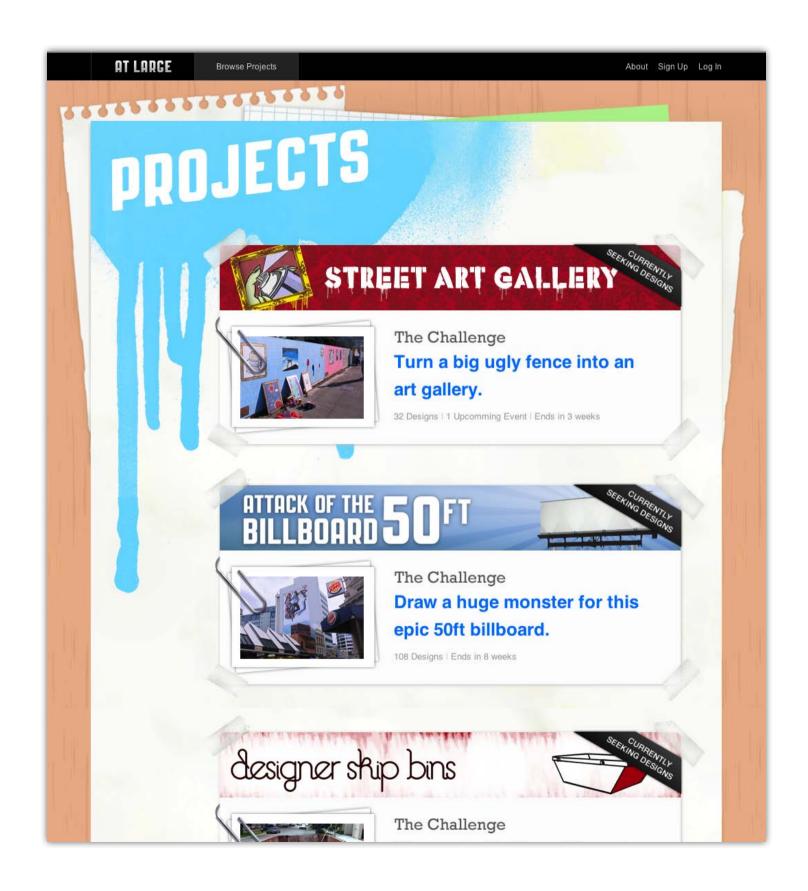
Visual mock up for the about page

Section Four CONCLUSION

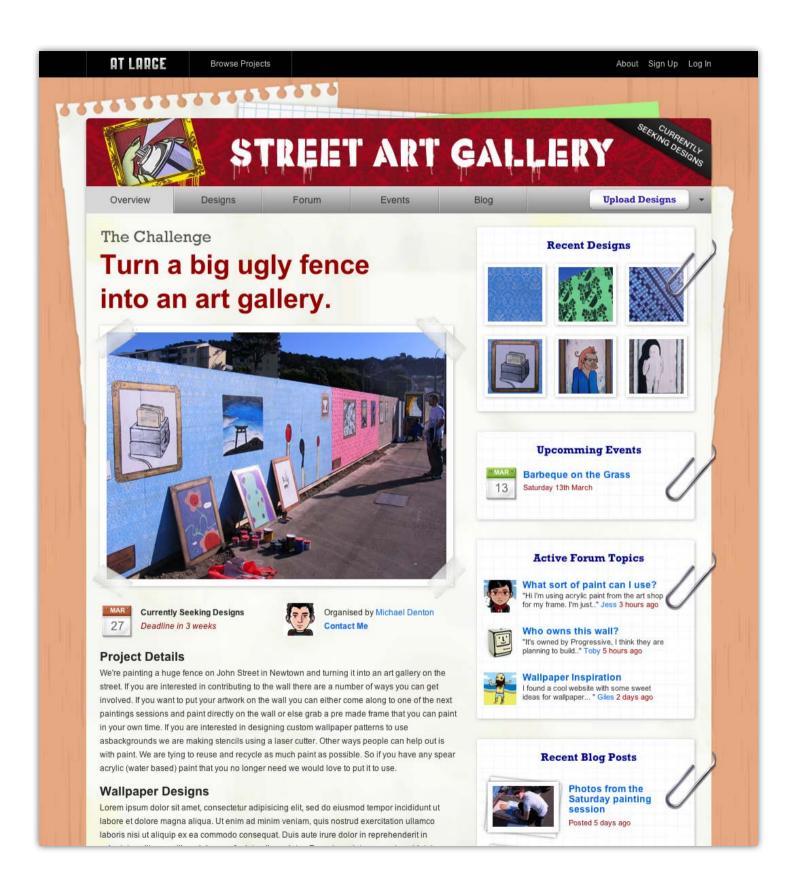
Final Screenshots

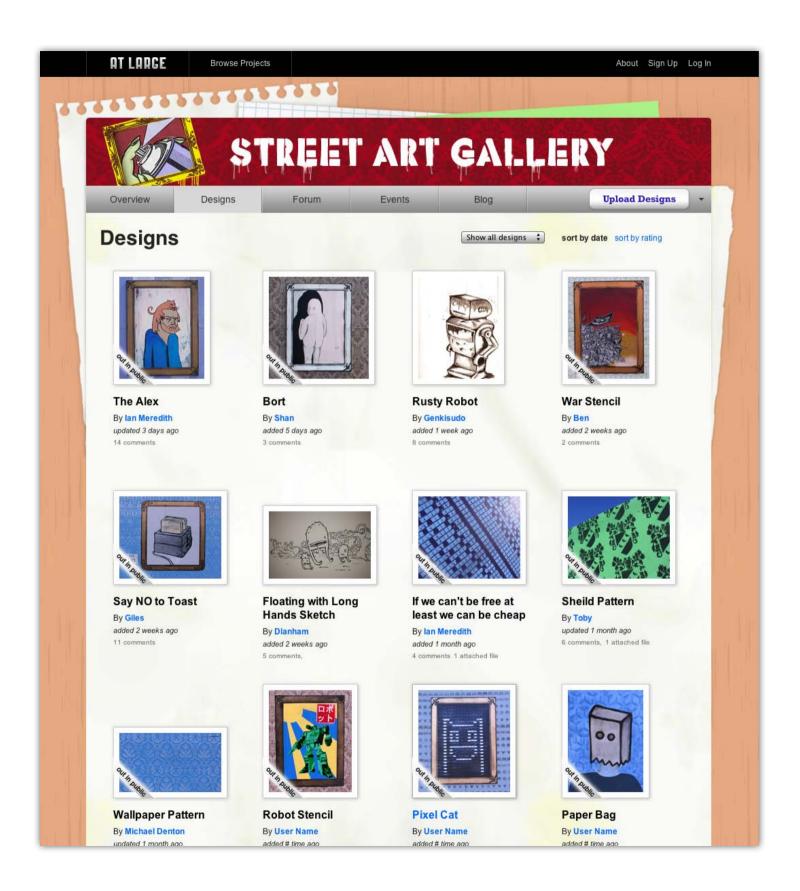


Screenshots of the final prototype. To view online visit prototype.atlarge.co.nz

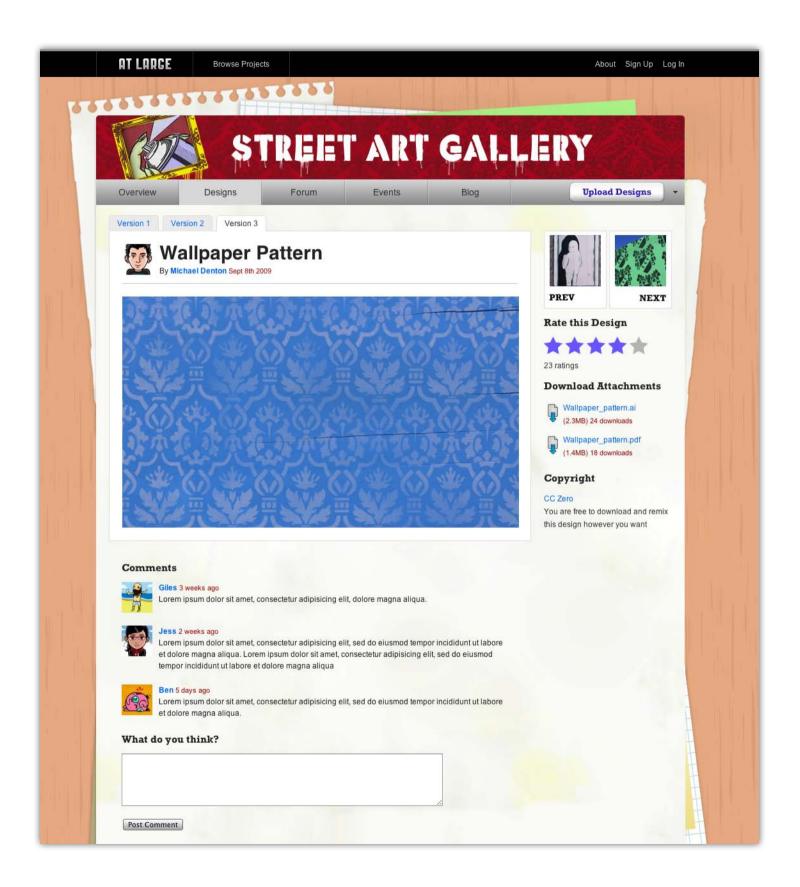












Summary of Findings

This project has highlighted a range of aspects that can affect a platforms ability to harness voluntary contribution. While the underling structure is clearly important other elements (such as the interface design and surface appearance) can also affect how users engage with a platform and consequently their ability to make meaningful contributions.

As a result of conducting user research I found that potential users were more likely to get involved and contribute if they were provided with some direction and guidance. This led me to develop this platform around the idea of tackling 'projects' with a clear objective rather than an open pool of designs.

My initial research also identified that people can be motivated to contribute for a variety of reasons other than money. Some reasons why people wanted to create art in public spaces included the desire for self-expression, wanting to participate and 'be part of something' and the personal reward of succussing at a challenge. By understanding and tapping into people's motivations the branding for this platform has sought to attract people to get involved.

Through the process of running an informative test case I realised the variety of ways that people can contribute. Not only in generating creative ideas but also helping to develop, evaluate and implement them. The structure developed makes use of the range of contributions people are willing to offer allowing users to suggest designs, share inspiration, discuss projects, organise events, and engage in a variety of different ways.

The design of the interface can also help to harness voluntary contribution. By intentionally crafting the layout, language, defaults and flow user behaviour can be directed in a way that encourages constructive contribution.

The visual design of a platform can also play a role in harnessing voluntary contribution by shaping the perceptions of users. The visual appearance of this platform was designed to suggest that the platform is in the active state of creativity and by extension suggests that people can participate in the creative process.

Future Potential

This project has explored how the latent talent of numerous volunteers can be harnessed to produce art in public spaces. Although the production art in public spaces is a rather narrow application many of the techniques that this platform incorporates could also be used to involve people in tackling other creative challenges.

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