

Multidimensional Storytelling through MR

Introduction

Team Members

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Problem Domain

We started our project by defining our design objectives.

- Delight
- Presence (doesn't distract from real life, but enhances it)
- Emotionally evocative
- Creative confidence (empowers the user)

To get a better grasp on the different opportunity areas out there, we decided to interview as many 'passionate' people as possible. After talking with them all, we realized that anyone who has dedicated enough time and energy to something they love has a story they want to tell. This narrowed us into designing for a creative person faced with the problem of telling a story--someone who has made storytelling their craft.

With the added constraint of our studio being AR/VR oriented, we naturally adopted the problem domain of **enhancing, or adding a new dimension to the sharing of structured stories**. We decided to omit storytelling that is more fluid and unstructured--for example, oral tradition--to narrow our scope.

Where We Were Last Week

Initial POV

We started this week less with a POV and more with a collection of interviews for which we had informally identified what each of our interviewees might have been thinking. Were we to retroactively construct a POV which he had begun the week with, it might have looked something like:

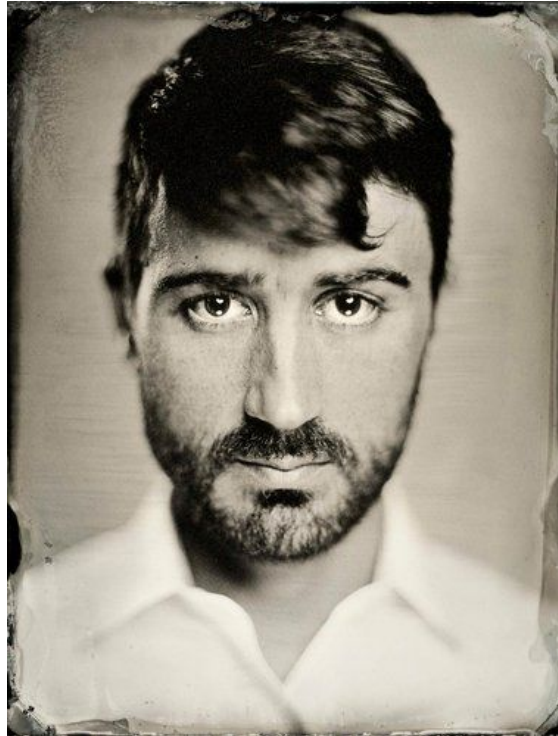
We met a collection of individuals who work on challenging problems as a certain form of catharsis. We were amazed to realize how fragile, and sometimes broken, the process is for them, despite some truly incredible end products. It would be game changing if we could make this process more secure, and consequently more powerful in the end, for them.

This is, admittedly, quite vague. It was in large part due to the nature of the interviews we had conducted for Assignment 1 - purposely fragmented in subject matter in pursuit of a variety of problems we might be able to solve.

Additional Needfinding

After our needfinding results last week, we narrowed down our problem domain to storytelling and went in search of storytellers to interview.

Scott the Novelist



We interviewed **Scott Hutchins**, author of *A Working Theory of Love*, a novel about a young, recently divorced man employed at an artificial intelligence startup in San Francisco. Scott has also co-lead the Stanford Graphic Novel Project, a two-quarter-long class in Stanford's creative writing department that culminates in a complete, printed graphic novel produced collaboratively by all members of the class.

Our interview with Scott revealed key insights both about the elements that make graphic novels unique from other mediums, and Scott's own writing process--a surprisingly spatial and non-chronological affair.

We learned that what makes graphic novels "different" is the layout of the panels on the page, and the ability of empty space--the transitions between panels--to enhance the story by allowing the reader's imagination to fill in the blanks. Scott explained that these spaces convey movement on a scale ranging from grand to extremely small. Graphic novels can depict huge amounts of movement and activity, such as crowd scenes or explosions, in a way that ordinary novels can't; they can also communicate tiny movements by placing emphasis on the minute differences between panels that have been placed side by side.

While Scott is not a comic artist himself, he described his process of writing prose fiction as incorporating the same emphasis on space and juxtaposition. Scott writes the first draft of his

novels in longhand, and likes to sit on the floor with pages spread around him so that he can rearrange scenes and see “what happens if you put these two things next to each other.” He writes out of chronological order and describes “transitional writing”--prose that connects two scenes--as his least favorite part of writing.

Jonatan the Filmmaker



We interviewed **Jonatan Lind**, a filmmaker who creates short films and music videos, and also works with companies to promote themselves through film and social media. Jonatan started his own filmmaking business shortly after graduating high school. He describes his work with companies as a way to both practice his practical skills and fund his personal film projects.

We started out the interview by talking about Jonatan’s work for various companies, but quickly transitioned into the more interesting side of his filmmaking: his personal projects. Jonatan told us that the highest point of making a film is the moment of conception, when he first gets the idea; then “it’s all downhill from there.”

Jokes aside, one key takeaway from this interview was that the creative spark is fragile, and can fizzle extremely early in the production process unless it’s given the right fuel. Jonatan described feeling “extreme self-doubt” if he kept an idea to himself for too long; it was only by sharing his ideas and early drafts with close friends for critique that he was able to see how an idea might be brought to reality. However, he emphasized that it was critical to seek feedback from the “right sort of people,” and not people who would try to “change an idea until it becomes something they’re used to.”

In Jonatan's opinion, the most important part of storytelling is to capture the emotions of the audience. In character-driven narrative films, it becomes crucial to ensure that the audience emotionally invests in the characters. Jonatan builds his characters into "real people" by fleshing out all the "little details" about them, from the way they dress to their favorite food. He laments that many of these details are eventually lost once the logistics of filming and editing begin.

Three Selected POVs

We met **Scott**, a fiction novelist. We were amazed to realize that the extra dimension of graphic novels (as compared to regular novels) allows him to convey ideas/scenes he wouldn't be able to convey in writing. It would be game changing if we could add an mixed reality dimension to storytelling to relay new types of experiences.

How might we...

- enhance the storytelling capabilities of graphic novels using mobile AR technology?
- **use mixed reality to tell a nonfiction story in the location where it actually occurred?**
- use mixed reality to promote written stories nontraditionally?
- use mixed reality to allow readers to interact with their favorite characters organically?
- **use mixed reality to tell a story where you are a character?**
- use AR to rejuvenate the bookstore experience?

We met **Jonatan**, a narrative filmmaker. We were amazed to realize how many details he conceives for his characters before he starts filming. It would be game changing if we could keep more of these details from being lost in the final cut of his stories.

How might we...

- give characters more depth for the careful film viewer?
- use AR to make brainstorming content for narrative films more natural?
- make fictional worlds and characters more accessible before the viewer consumes their stories?
- enable creatives to share their vision with others dynamically through mixed reality?
- allow filmmakers to get inside their ideas and worlds?

We met **Lauren**, a traveling muralist. We were amazed to realize that being in a shared space makes her feel capable of making art. It would be game changing if we could bring the feeling of a shared space to wherever she creates art.

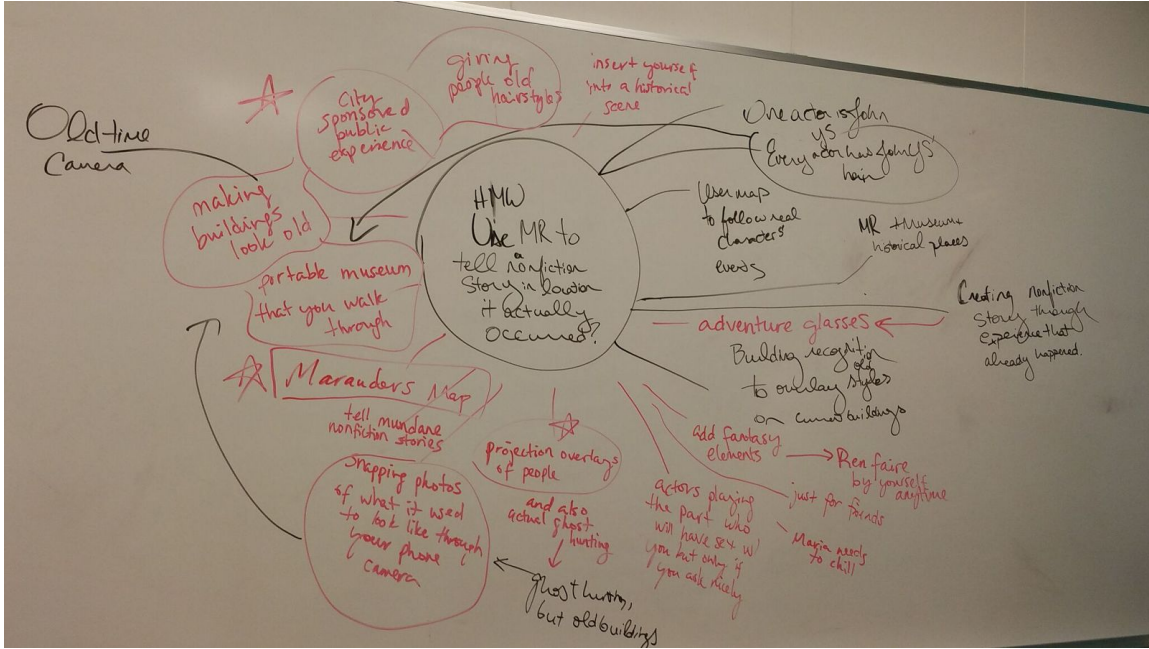
How might we...

- make people feel like they have a blank slate?
- give artists a traveling studio, or make their studio travel with them?
- make an outside space an open pop-up studio for the artist community?

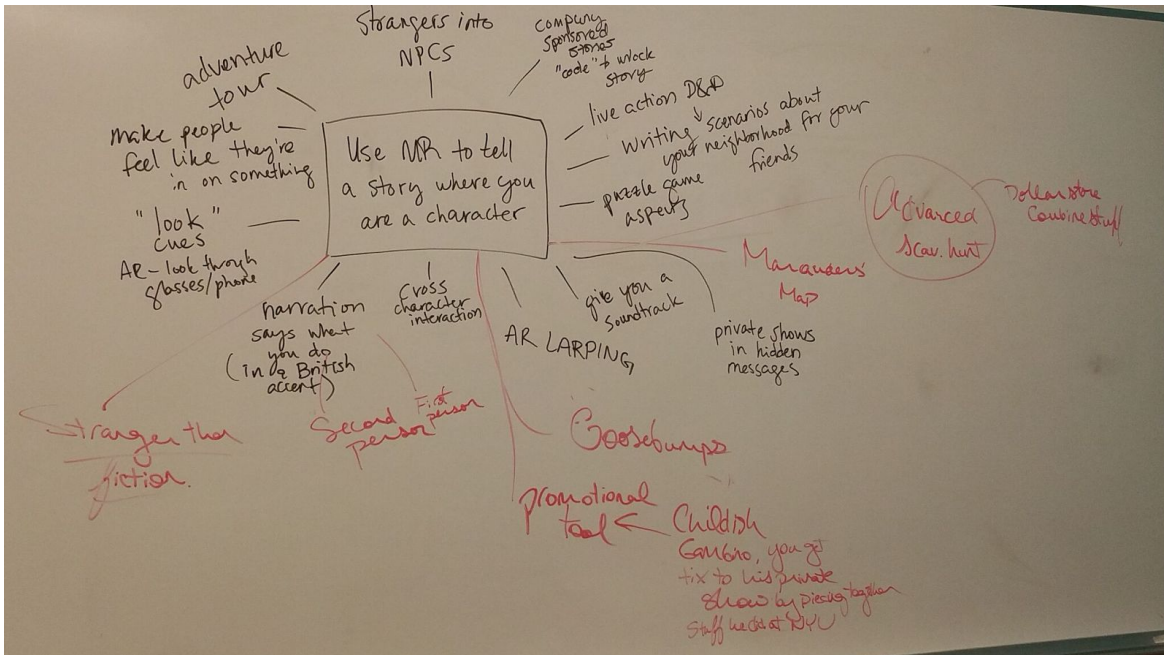
- allow art to peel back and reveal the inspiration behind it?
- help artists tell their creation story?

Three Selected HMW's:

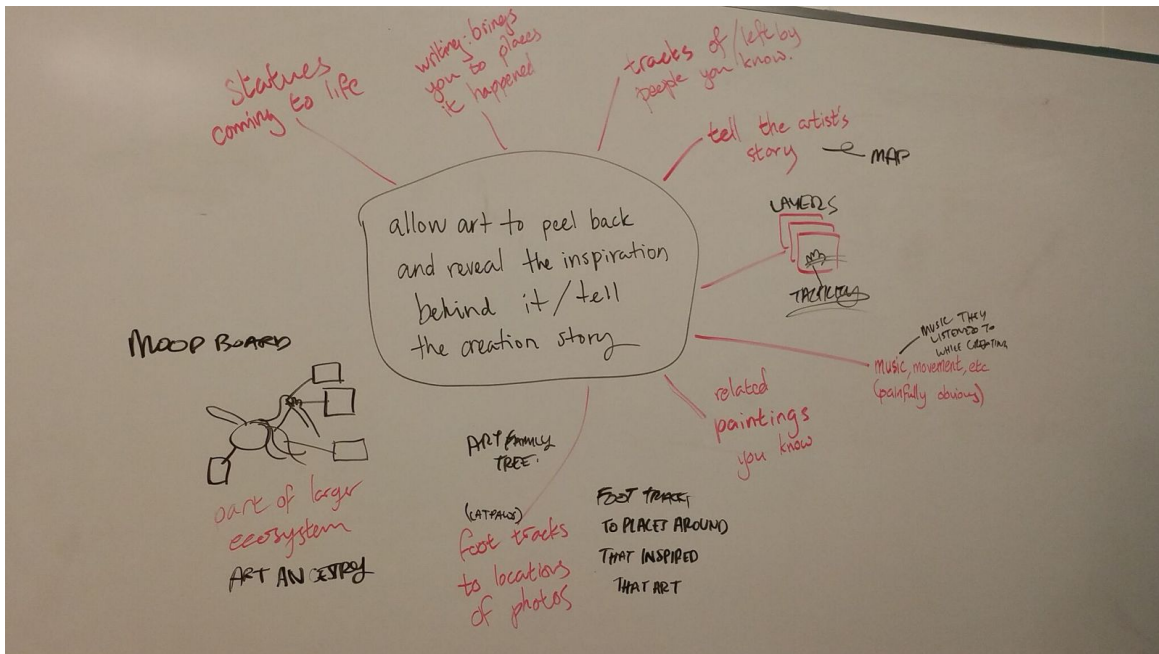
1. How might we use mixed reality to tell a nonfiction story in the place it actually occurred at? (Scott)



2. How might we use mixed reality to tell a story in which you are a character? (Scott)



3. How might we allow art to peel back and reveal the inspiration behind it, to help artists tell their creative story? (Lauren)



Experience Prototypes

Narrative Scavenger Hunt

We had the user don Adventure Glasses™ (e.g. a pair of sunglasses) that allowed them to embark on a narrative scavenger hunt designed to fit into an overarching story told on another medium, such as a web series or a graphic novel.



The user was put into the role of the protagonist, searching for a character who had been kidnapped. The user followed the kidnapper's trail by following footprints projected onto the ground by the Adventure Glasses™.

When the user reached a predetermined location, we showed them a popup in their Adventure Glasses™, prompting them to look to their left.

By looking to their left, the user discovered a clue, which was revealed as a popup in their Adventure Glasses™, showing them what they had found and inviting them to view more details that would tie it into the overarching narrative.

The user gave us both positive and negative feedback about the experience prototype. The user liked the experience of acting as a character that they admired and getting to progress the story through their own actions. They also enjoyed following the virtual footprints to their destination. The user

expressed frustration at the linear nature of the story and suggested that the experience be enhanced by removing the “look left” and similar cues, instead allowing the user to look around and discover the clue without prompting.

This prototype was inspired by HMW #2, under the assumption that allowing the audience to act as a character in the story would both enhance their enjoyment of the story and strengthen their emotional connection to the narrative. That assumption seems to be valid, although it was difficult to tell without the context of a real story and real characters that the user was already invested in.

Mood Board

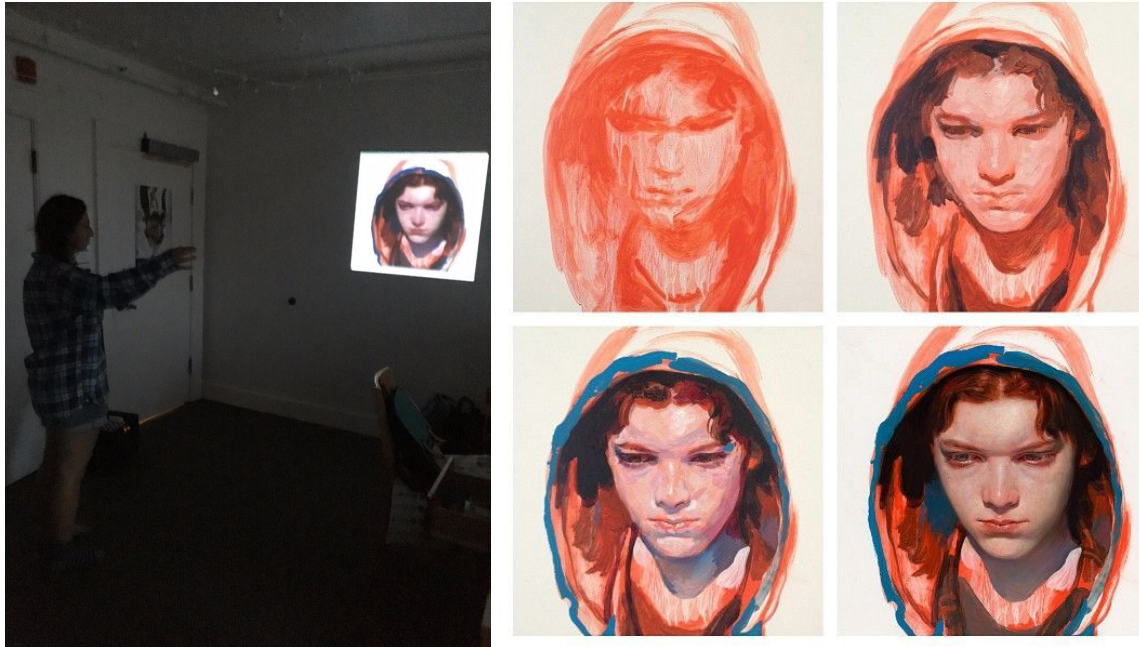


We constructed a prototype for this with a notebook, using page flipping as the changing views. Unfortunately, without any sort of feedback, the purpose of art surrounding other art wasn't immediately clear.

Our subject's first question was whether or not he could put the surrounding art onto the main art. Once he got the feel for, generally, how it might work, he seemed interested and subtly eager to delve more into the mural.

This was inspired by the third HMW, as a way of giving onlookers insight into the mind of the artist while he or she is creating. Everyone has some set of thoughts running through their head as they create, and we thought it would be really interesting to let people see what that was. It would also lend art pieces an extra dimension of expression.

Layer Solution



We had users stand in front of a projected image and use physical gestures (such as swiping and pushing) to flip through the various stages of the painting process.

Initial response was excitement. The interaction felt “magical” to them. Getting insight into the process of the artist made them feel like the final art was more attainable for someone like them, and that it was “educational.” The users wished there was more gradation between the layers, and that they could go back to the bare wall. They made the assumption that this would be found in a gallery or museum setting. They wished that touching the art would trigger some kind of interaction.

This prototype was inspired by the third HMW, with the belief that the process and changes an art piece undergoes in the process tells a lot about the artist and the piece.

Historical Realism



We took users on an interactive tour of the main quad, telling the story of Stanford's development. We showed users sketches of construction crews building the church and gateway entrance, which would have taken place in the 1800s. We also showed sketches of other Stanford traditions, such as Full Moon on the Quad (an early 20th century view and a 21st century view), a convocation ceremony, and a senior dinner. These traditions are often touched upon in Stanford tours, but we thought a representation of them in the space they occurred would give users a better appreciation for the traditions Stanford students love.

Our user's initial response was interest--although she already knew many Stanford traditions, she thought it was cool to see when and where construction crews worked to build the quad. She thought the added visual was better than a typical university tour. At the same time, our user had a little trouble getting into the experience. The rough sketches we put up to describe historical events weren't that compelling, so the narrative that accompanies the sketches really had to carry the user experience. For us, that means that it will be a serious design challenge to tell this 3D story in a form that is compelling.

Our "Historical Realism" experience prototype stemmed from an assumption that location could be an important dimension to help storytellers convey details in compelling ways. While that seemed to be true in our testing, it also became clear that such an experience would need to be designed cleverly and with lots of user testing to ensure that the experience felt natural.

Most Successful Prototype

While we were excited by all of our prototypes, the one that we felt addressed its HMW most thoroughly was prototype #3, the layer solution. Our assumptions were proven valid and we even discovered new and exciting results of the prototype, such as the users' feelings that the art became more accessible when they were able to view the process of creating it. The users were also excited about the physical interaction, even wishing for further interaction beyond what we had initially envisioned.