SPECULATIVE AND CRITICAL DESIGN AND LIBRARIES

John Jung

These speaker notes are from a virtual presentation at Masaryk University on April 27, 2020. I deviated from these notes slightly during the actual talk.

Although these notes are from my perspective, the speculative and critical design reading group I talk about would not have been possible without my co-facilitator Renee Albrecht-Mallinger. We hosted our reading group at the community lab LATITUDE in Chicago. Their staff were wonderful to work with through the entire process, and the participants in our group brought unique perspectives to each exchange, interrogating ideas critically while being kind to each other as a group.

Thank you all very much for joining in for this presentation today. I would like to especially thank Masaryk University and especially Roman Novotný for the opportunity to share this work. I feel especially fortunate to be able to talk with you about speculative and critical design at a time when people in all fields, not just in libraries, are very much thinking about the future and exploring different scenarios about how our work and home lives will change in the coming months and years. I hope that this presentation will feed into a larger conversation about critical approaches to library futures with any of you who are interested.

I'll give a small tour of the Zoom interface before we get started. In the upper right hand corner there are two icons—the "people" icon shows a list of participants, and the talk bubble icon opens up a chat sidebar. Please feel free to use the chat window for comments.

Please mute your microphones unless we're doing a discussion. The microphone icon is in the middle of the screen at the bottom. You can also turn your video feed on or off if you'd like.

Finally, you can change the layout of the screen. In the lower right corner of the screen there is an icon with three dots. If you click that a popup window will appear. Clicking the "change layout" button will let you switch between spotlight view, sidebar view or tiled view.

Today I am going to cover three things. I'll start with a short introduction to speculative and critical design, where I will show some examples of this kind of design work. Then I'll present a case study where I teamed up with the design researcher Renee Albrecht-Mallinger to facilitate a reading group for

artists interested in using speculative design to explore issues around climate change in their work. Finally we'll have a chance to talk about how libraries might do this kind of design.

I'm going to jump right in and start with some examples of speculative and critical design, along with some precursors to it.

Italian Radical Design[1]

This design movement in the late 60's was a big influence on the way speculative and critical design is practiced today. Two important exhibits were "Superarchitettura" in Pistoia, Italy in 1966, and "Italy: The New Domestic Landscape" at the Museum of Modern Art in New York in 1972. The architects and designers who were involved in these exhibits made models and prototypes that were never intended to be built. Adolfo Natalini was one of these architects—he was one of the co-founders of the architecture firm Superstudio. Along with Archizoom they were two of the important studios in this movement. Natalini said that once he became an architect he couldn't find opportunities to make buildings, so instead he and his colleagues used drawings, collages and models to explore their fears and fantasies.

The goal was to be thought provoking and to imagine alternatives to the architecture and design practice of the time, either by taking elements of existing design practice and pushing them to their logical conclusion, or by creating a new type of design to replace the old.

A manifesto from Archizoom and Superstudio describes Superarchitettura as "the architecture of superproduction, superconsumption, superinduction to consume, the supermarket, the superman, super gas."

In the late 1960's, Superstudio made a series of films that were designed to raise awareness of the impact of construction on the natural environment. A lot of speculative and critical design produces outputs that are very much inspired by this kind of design work—today it's very common for people working in this way to create products that are not intended to be produced, and to explore their ideas in formats like short films alongside more traditional outputs like architectural models or physical prototypes.

1   Maria Christina Didero. SuperDesign: Italian Radical Design 1965-1975. (New York: The Monacelli Press, 2017)

2   Radio in a Bag. Accessed April 26, 2020, https://collections.vam.ac.uk/item/O85208/radio-in-a-bag-radio-weil-daniel/

Radio in a Bag, Daniel Weil[2]

This is Daniel Weil's "Radio in a Bag" from 1981. If a product designer was assigned the task of redesigning a radio in the early 80's, they normally would have focused on the shell. The shell hides the electronics inside, and it's all the consumer normally ever sees. When designers move the consumer's attention away from the inner workings of a radio to the outer

shell, one thing that happens is that consumers stop thinking about a radio as its physical components, and they start thinking about it as something more intangible—they choose one radio over another because the outer appearance of it appeals to them in some way.

This radio critiques the way product designers normally work. Rather than designing the radio in a way that makes the inner components recede from view, this design focuses the consumers attention on them so they can keep in mind how the radio works and how it was manufactured. This way of designing a radio might encourage them to repair, modify, or hack on the original design.

Yellow Chair Stories, Anab Jain[3]

Now we're going to fast-forward to 2005. Anthony Dunne and Fiona Raby are two important designers who do what we now think of as speculative and critical design. They published the book "Speculative Everything: Design, Fiction and Social Dreaming" in 2013. In 2005, Anab Jain was one of their students at the Royal College of Art in London. She made this short film about sharing the wireless network in her home and learning more about her neighbors and how they where using it.

We'll watch the movie together, and then I'll open this up for some discussion:

1. What are your initial reactions to the movie?

2. Did you find any physical or digital interactions in the movie especially interesting?

3. Can you think of any social design interventions for the software we find ourselves using right now, like video conferencing or group chats?

Song of the Machine, Superflux[4]

Jain went on to start the design firm Superflux, which focuses on speculative and critical design. On their website they introduce themselves by saying:

"From unprecedented technological acceleration to climate change and political unrest, we are living in precarious times. But with uncertainty comes opportunity for positive change. We believe that through understanding, foresight, and creativity we can create tools that not only allow insight into forces at play but help shape democratic, positive, rewarding futures. By creating concrete experiences from the future, we

3   Anab Jain. Yellow Chair Stories. Accessed April 26, 2020, https://vimeo.com/2935189

4   Superflux. Song of the Machine. Accessed April 26, 2020, https://vimeo.com/22616192

want to transform decision making today."

This film is a way to explore a treatment for a degenerative condition of the eye using retinal prosthetics. In contrast to hearing implants, progress on the technology for retinal implants has been slow. The video explores how users might interact with this technology, and what some possibilities of this new type of vision might be.

Some questions for discussion:

1. What are some rewards and challenges of working with experts in other fields?

2. What do the designers who created this video bring to this partnership?

3. How might designers and librarians collaborate?

LATITUDE's Speculative Design and Climate Reading Group

Next I'd like to talk about the speculative design reading group I helped to facilitate last fall.

The goal of our reading group was to help artists respond to climate change through a combination of readings, design projects, and activities. We were open to facilitating a range of artistic responses, from art that is about climate to activist art, where the aim is "to create art that is a form of political or social currency, actively addressing cultural power structures rather than representing them or simply describing them."[5]

If you find the idea of using ideas from design to facilitate work like this inspiring, I hope you will do it with a realistic idea of the work that goes into creating positive change. Today people are enthusiastic and excited about "design". We used that optimism as an opportunity to start a project where we got to closely read interesting writing on important problems with a group. If you can facilitate the work of artists, like we did, or someone else, I hope you will.

When I do a project like this I am very interested in trying to find ways that design approaches can be improved. I tend to be very skeptical of design activities. I think that in a lot of contexts they can mask implicit assumptions about who gets to express themselves, whose ideas matter, and what kinds of output are valuable.

I think that it can be helpful to keep my individual point of view in mind when you hear a summary of work like this. I think of myself as a person who is privileged in many ways—I live in a large city in a wealthy country, and I was able to afford a graduate degree from a design school. At

5 Tate, "Art Term, Activist Art", accessed February 16, 2020, https://www.tate.org.uk/art/art-terms/a/activist-art

the same time I was the first person in my family to go to college, at a local university where I took most of my classes in the evenings. My father worked in a factory, first as a machinist and later as a manager, and in addition to caring for me and my siblings my mother worked as a secretary, babysitter, and cosmetics salesperson.

Approaches like speculative and critical design give me a chance to think about my life and my work from a critical perspective, and to explore issues that are important to me while doing design and development work.

In general, I think that the field of design is very good at selling me things, but it's bad at being self-critical. Figuring out how I can incorporate a more critical perspective into design is sometimes a bumpy ride, but it's exciting and I feel lucky to be able to do it.

If you have ever taken a design workshop you might have used "How Might We" statements to stay focused on a problem. As we worked we thought of our project in terms of several How Might We's:

How might we use design methods to help artists produce work that responds to climate?

How might we identify methods that are not good at this?

How might we identify methods that are better?

About LATITUDE

Our project was at the community lab LATITUDE, so I'll give some background information on them next. These quotes are from an email exchange with their executive director, Colleen Keihm.

LATITUDE is a non-profit organization in Chicago that maintains a digital lab with high end scanning and printing equipment. They operate an artist in residence program, and they organize regular education and arts programming. They also function as a service bureau, offering printing and scanning services for a fee.

LATITUDE was founded in May of 2012 by a group of artists and educators including Walker Blackwell, a master printer and owner of the printing business Black Point Editions. The founders recognized that Chicago's art-making and photographic communities suffered a drastic lack of access to high-end digital media equipment outside of academic institutions. They were also driven to create a non-commercial, non-institutional space for generative public programming related to the arts and photography that could act as a bridge between makers and thinkers of all types. Drawing

on the models of four successful and established peer organizations—the Philadelphia Photo Arts Center, Portland's Newspace Center for Photography, San Francisco's Rayko Photo Center, and Syracuse's Light Work—the founders created LATITUDE as a similar resource for Chicago's image-makers.

In 2014, LATITUDE received its 501(c)3 status and began pursuing grants and donations. In 2015, LATITUDE instituted an Administrative Fellowship program with 2-3 participants working annually to advance the organization's programming, marketing, and education needs. Those fellowships now include Education, Programming, and Community Outreach.

What is Speculative and Critical Design?

Our reading group was about Speculative and Critical Design—so what is that?

This illustration is a futures cone[6], which is one way to think about what speculative design is trying to do. It's trying to explore realistic or thought-provoking scenarios at different points in the future, where each scenario is more or less probably, plausible or preferable. One of the great things about asking people to think critically and look at diagrams like this is that there is so much to unpack here. All diagrams are simplifications—one of the things that strikes me about this one is that it seems to imply that people generally agree on a preferred future.

There is a lot of fuzziness in the ways designers classify their work. Our reading group was about speculative design, but critical design is an approach that has a lot of overlap. For me, critical design is an especially useful neighboring approach. Anthony Dunne and Fiona Raby are two important figures for both speculative design and critical design. Critical design tries to take a critical-theory based approach to design, where the goal is to use the language of design to stimulate discussion about the social and ethical implications of technology.[7]

A/B, A Manifesto[8]

This is a work by Dunne and Raby that starts to talk about what they think that approach is like. Column A lists qualities of traditional design, and for each quality, column B contains an alternative that describes critical design work. To them, critical design is "critical", not "affirmative", "problem finding", not "problem solving", and "design in the service of society" instead of "design in the service of shareholders."

6   "The Futures Cone, use and history" Accessed February 16, 2020, https://thevoroscope.com/2017/02/24/the-futures-cone-use-and-history/

7   Anthony Dunne and Fiona Raby. Speculative Everything: Design, Fiction, and Social Dreaming. (Boston: MIT Press, 2013)

8   Anthony Dunne and Fiona Raby, "A Manifesto," accessed February 16, 2019, http://www.dunneandraby.co.uk/ content/projects/476/0.

Thomas Thwaites, The Toaster Project[9]

This is an example project to show what this kind of design work can look like in practice. This is the Toaster Project by Thomas Thwaites. It was inspired by a quote from Douglas Adams: "Left to his own devices he couldn't build a toaster. He could just about make a sandwich and that was it."

The goal was to see what it would take to make a toaster from scratch. Thomas bought a toaster for $5, thinking that it would be the easiest to reverse engineer, but even that toaster had about 400 components. He reduced it to the simplest components he could: steel, mica, plastic, copper, and nickel.

He went to a small mine that was being operated as a tourist attraction and convinced them to give him iron ore. He made steel out of it with a leaf blower and a microwave. He went to Scotland to dig mica out of the ground. He made a mold for the plastic case out of a tree trunk.

This is the finished product. Rather than promoting designers as people with an almost magical ability to create, to me this toaster is a way to talk about how limited designers are. They're small parts in an enormous system that is set up to produce products like this cheaply. As part of his project he snuck his toaster into a display at a store and put a price on it. It would have cost several thousand dollars. Critical design is different than the kinds of work designers normally do.

I'm also going to give two examples of this kind of design work in libraries.

Timeline of the Far Future of Libraries[10]

Rachel Ivy Clarke presented this poster at the 2017 American Library Association annual conference. For this project, Clarke lists events from the real history of libraries, starting with the library of Alexandria, and moving to concerns of the present day like the introduction of Google. Then the timeline moves into a possible future, with events like the closing of Harvard University and the Bibliotheque Nationalale. When she put this timeline together she used events from the past as inspiration for a speculation about the future—so events like the opening of a major library have a correlating event in the future, like a library closing.

Clarke said that she was concerned about what the response to this project might be, because certain aspects were deliberately provocative. However she said that the piece did what she wanted it to do: it sparked conversations about long term possibilities for the future of libraries, and it helped people to think about futures that might otherwise have been difficult to discuss.

9   Thomas Thwaites. The Toaster Project: Or a Heroic Attempt to Build a Simple Electric Appliance from Scratch. (New York: Princeton Architectural Press, 2011)

10 Rachel Ivy-Clarke. Timeline of the Far Future of Libraries. Accessed February 16, 2020, http://archivy.net/ivywp/wp-content/uploads/2015/07/Clarke_TimelineFarFutureLibraries_ALA2017.pdf

Killing Me Softly[11]

This text-based game is from the librarian Fobazi Ettarh, who also developed the concept of Vocational Awe. I think this is a really great example of critical design. The game is about microaggressions. You play as one of two characters: Alex is a white, able-bodied gay man, and Leslie is an African-American, straight woman with a disability. In the game you start a new job and experience coworkers saying things that are more or less hurtful. You get to choose how to respond, but as you play Alex or Leslie's stress level increases.

A Brief History of Global Warming

Finally, I'll give some background on global warming. I do not have a background in science—however, one thing I have observed about design and design research is how often you get to work with people who have expertise in other areas.

In the book Imagining the Future of Climate Change[12], Shelley Streeby lays out a brief history of global warming. Because we incorporated readings from her book I'll use an abbreviated version of her timeline. One of the things I like about this timeline is that it is obviously coming from the perspective of an activist.

• 1827—The Mathematician Joseph Fourier formulates what we now call the theory of the greenhouse effect, and then in 1859 John Tyndall identifies greenhouse gases. In 1896 we have predictions of how much the climate would change based on changing concentrations of atmospheric carbon.

• The 1940's—Technology for measuring CO2 improves dramatically, and in 1959 Gilbert Plass publishes "Carbon Dioxide and Climate" in Scientific American, where he warned that "if carbon dioxide is the most important factor" in increasing the earth's temperature, then "long-term temperature records will rise continuously as long as man consumes the earth's reserves of fossil fuels."

• 1962—Rachel Carson publishes the book Silent Spring, and in the 1960's, grassroots environmental movements, nonprofit organizations and environmental institutes proliferate. The first Earth Day takes place in 1970.

• 1975—Wallace Broecker uses the term "global warming" in a scientific paper introducing the phrase into the language of science and eventually into official reports and media stories.

• 1985—The British Antarctic Survey reports ozone depletion over Antarctica and in the late 80's news coverage of global warming

11 Fobazi M. Ettarh. "Killing Me Softly" Accessed February 16, 2020, https://fobettarh.github.io/Killing-Me-Softly/

12 Shelley Streeby, "Imagining the Future of Climate Change: World-Making Through Science Fiction and Activism." (Berkeley: University of California Press, 2017)

dramatically increases after a year of heat waves and droughts.

• 1987—The Vienna Convention's Montreal Protocol sets international limits to emissions with an adverse effect on ozone, while fossil fuel interests create the Global Climate Coalition to create doubt in the minds of citizens and politicians around climate science.

• 1991/1995—IPCC reports predict that the sea level rise would cause catastrophic social, economic, and political problems if no changes were made to current greenhouse gas emissions.

Benefits of Reading Groups

This project was specifically about how design methods might help artists respond to climate change. The project also gave us the chance to think about reading groups as a design method, and to compare it with other methods.

From this perspective, the reading group was partially a research method, where we read material closely and reflected on it as a group. This is comparable with bringing in expert speakers for a workshop. We also used the reading group as a generative method, which is comparable with methods like brainstorming exercises.

Reading groups are a very accessible way for a group to think about a topic. Several LATITUDE staff members said that they liked the idea that people could use their reading groups to decide if they wanted to go to graduate school. Although we donated our time to the project, running a group like this at LATITUDE as opposed to at a college or university had the advantage of reaching out to people who, for whatever reason, aren't interested in additional formal education but might contribute to that type of discussion.

Our group met for 16 hours total with one two-hour session per week for eight weeks, and participants spending time each week preparing. Compared to a two-day workshop, this gave participants much more time to immerse themselves in the material. Additionally, having more time meant that people also had more time to get comfortable with each other as a group. This seems helpful if we expect people to be able to bring a critical perspective and sometimes challenge each others ideas.

Syllabus

To prepare for the group we met several times over the course of about six months to brainstorm ideas for how to run the group. We started a spreadsheet on Google Drive to track potential readings, design projects,

and activities. We produced an eight week syllabus, but once the group started, we improvised and change each week's readings based on how the group responded intellectually or emotionally to the material. We found that, because of the topic, it was easy for the discussion to become emotionally challenging.

Week 1: a/b by Dunne and Raby.

Week 2: Speculative Everything, chapters 1 & 2. Design Fiction: A short essay on design, science, fact and fiction, by Julian Bleeker (accessed February 16, 2020, https://drbfw5wfjlxon.cloudfront.net/writing/DesignFiction_WebEdition.pdf.)

Week 3: Imagining the Future of Climate Change, by Shelley Streeby, chapters 1 & 2.

Week 4: Do Artifacts Have Politics? by Langdon Winner (Daedalus, Vol. 109, No. 1. Winter 1980.) Do Politics Have Artefacts? by Bernward Joerges (Social Studies of Science, Vol. 29, No. 3, June 1999.) William Nordhaus: The Economics of Climate Change. (Accessed February 16, 2020, https://bfi.uchicago.edu/news/william-nordhaus-breaks-down-the-economic-impact-of-climate-change/.)

Week 5: The Clock of the Long Now, by Stuart Brand. (New York: Basic Books, 2000.)

Week 6: The Future Energy Lab by Superflux (Accessed February 16, 2020. https://superflux.in/index.php/work/futureenergylab/#.) The New York Times Special Edition by the Yes Men. (Accessed January 16, 2020, https://theyesmen.org/ tags/new-york-times.)

Week 7: The Thing From the Future (Accessed February 16, 2020. http://situationlab.org/project/the-thing-from-the-future/), project brainstorming.

Week 8: The Thing From the Future, project brainstorming.

After the group concluded, three of us continued working to write a short screenplay exploring the way climate appears in the news and media. I'll talk more about how our readings led to that specific idea soon.

Critical Making

Many design methods deal with generating new ideas. One well known example is the brainstorming rules from the consulting firm IDEO. These include things like "defer judgment", "encourage wild ideas", "build on the ideas of others", and more.[13]

One of the criticisms of this kind of brainstorming is that it can be

13 IDEO. "Brainstorming - Rules and Techniques for Idea Generation." Accessed February 16, 2020. https://www.ideou.com/pages/brainstorming

superficial, and just based on the common knowledge of the people in the room. It can also shield the fact that "problem solving is always messy and most solutions are shaped by political agendas and resource constraints."[14]

It's hard to say exactly where creative ideas come from, but the idea for this project seems to have been inspired by two readings and one design project. The first reading was chapter one of the book Imagining the Future of Climate Change: World-Making through Science Fiction and Activism by Shelley Streeby.

This chapter is about activism around the Dakota Access Pipeline and other indigenous-led projects that "collectively imagined a different future." Streeby starts by describing the Indigenous Science Statement for the March on Science which was written by Robin Kimmerer, Rosalyn LaPier, Melissa Nelson and Kyle Whyte and endorsed by more than 1100 people for the 2017 March on Science.

In the opening of the statement, Streeby quotes the authors as saying that "long before Western science came here, there were Indigenous scientists here": "Native astronomers, agronomists, geneticists, ecologists, engineers, botanists, zoologists, watershed hydrologists, pharmacologists, physicians and more- all engaged in the creation and application of knowledge which promotes the flourishing of both human societies and the beings with whom we share the planet." The authors envisioned "a productive symbiosis between Indigenous and Western knowledge that serve[s] our shared goals of sustainability for land and culture."

Streeby goes on to talk about other kinds of productive symbiosis, like the social media campaigns during #noDAPL from Bobbi Jean Three Legs, Montgomery Brown and Joseph White Eyes, who said that they thought of their work "in the tradition of [their] elders and the American Indian Movement in coming together nationally and internationally to form a solidarity movement that builds people power."

Reading about the things that people did created an unresolved tension in our group. Because although the protests were successful in many ways, even inspiring Alexandria Ocasio-Cortez to run for office[15] the pipeline is now operational and the company behind the project was recently seeking to increase the flow of oil.[16]

We generated more unresolved tension with a discussion of democratic and authoritarian technologies while reading the article "Do Artifacts Have Politics?" by Langdon Winner. Here the question was, will government responses to climate be more compatible with authoritarian or democratic forms of government? Notwithstanding elements of the Green New Deal, which explicitly deal with income redistribution, our conversation ended on a down note. It seemed very likely to us that government responses to climate would result in more authoritarian government.

14 Harvard Business Review. "Design Thinking is Fundamentally Conservative and Preserves the Status Quo." Accessed February 16, 2020, https://hbr.org/2018/09/design-thinking-is-fundamentally-conservative-and-preserves-the-status-quo

15 Rebecca Solnit. "Standing Rock inspired Ocasio-Cortez to run. That's the power of protest." Accessed February 16, 2020, https://www.theguardian.com/commentisfree/2019/jan/14/standing-rock-ocasio-cortez-protest-climate-activism

16 Rod Nickel. "Dakota Access oil pipeline eyes expansion over tribe's objections." Accessed February 16, 2020, https://www.reuters.com/article/us-energy-transfer-oil-pipeline/dakota-access-oil-pipeline-eyes-expansion-over-tribes-objections-idUSKBN1XN2IB

The creative spark for a project came when we looked at the New York Times Special Edition from the Yes Men.

In this project, the Yes Men, a culture jamming and artist activist duo, print a fictional version of the New York Times and distribute it on the streets of New York City. They did this on November 12, 2008, about one week after the 2008 election. The paper was dated July 4, 2009, and rather than including the paper's real motto, "All the news that's fit to print", this paper's motto was "All the News We Hope to Print".

The paper included stories like "Iraq War Ends", "Nation Sets Its Sights on Building Sane Economy", and "Maximum Wage Law Succeeds". I have heard people describe the project as a liberal fantasy about the near future. Our group had an intense reaction to this project, which centered around the optimistic response to the project that the Yes Men documented in 2008. We thought that for many reasons, including the current concern with "fake news", this project wouldn't work today the same way it did then.

The group decided that its prompt for making a project would be "how could we create a version of the New York Times Special Edition that still works today?" At that point we started to brainstorm in a very focused way about what this project might look like.

Now that we've transitioned into more focused writing, we have a new challenge as we try to incorporate critical perspectives as we write drafts and revise them. The goal is to create something that is interesting as a screenplay, but also builds on the critical material we read. I think this kind of approach makes creative work better, but it's an interesting challenge to try to produce creative work that lives up to the standard of the things we read.

And, thinking about being frustrated as a state where a creative spark can happen- I have also observed that when we struggle with our project, other small projects happen really naturally. Of course there's a limit to how much actual frustration is good for creativity—but in our case, creating an environment where we could think something like the New York Times project, which we started thinking of as clearly broken, was very helpful. This also seems to be a bit at odds with the advice to "withhold judgment" during brainstorming sessions.

As these projects develop I look for ways to incorporate them into a kind of design research. The book Design and Futures[17], edited by Stuart Candy and Cher Potter, includes articles about a variety of projects where speculative design pieces like these inspired conversations around various kinds of futures. By incorporating interviews and group discussions, coding, analyzing, and synthesizing the results, and looking for ways to apply what we learned, it seems to me that approaches like speculative and critical design can inform traditional research methods quite well.

17 Stuart Candy, Cher Potter (editors.) Design and Futures. (independently published 2019.)

What Makes LATITUDE Special?

Although we have only had access to a few reading groups at LATITUDE, most seem to have been successful. People tended to do the readings and came prepared to have good discussions on the topic. We asked LATITUDE staff if they thought there was something special about LATITUDE that helped make that happen. The executive director offered her opinion:

LATITUDE is good at is bringing communities together because I believe staff of the organization want that to happen and choose to create a welcoming space. Walker, Pepper, Jessica and I all come from communities that are really good at the things they do- whether that be technologically, socially, artistically, and educationally. Specifically, Jessica and I are both educators at local colleges therefore bring/brought our two lives together in this space. Those who find us through word of mouth are often individuals who are forever learning. This brings with it certain reading levels, interest in expanding knowledge, and good listening skills.

We also asked if they thought that LATITUDE functioning both as a service bureau and as an arts organization was helpful, challenging or necessary. Again, the executive director said that in her opinion:

I would say all three—the commercial approach has afforded the ability to be artistic! When the organization started it created the Artist Residency shortly after; the service bureau brought in funds that paid for ink. As we get older as an organization a growing commercial practice has actually made us even more viable for grants—organizations often ask for matching funds and this allows us to do so. We also use our service bureau as a chance to offer practical training to our lab assistants. When they volunteer here they also gain tools to go out on their own and a reference too!

Formal Properties of the Group

This reading group had a few qualities that differentiate it from others. If you're interested in starting your own reading group, this list of qualities may be helpful in thinking about how to structure your group.

Open Call vs. Invitation Only

We did not specifically choose group members, instead membership was open to the public. We advertised the group to our networks on Facebook, Twitter and LinkedIn while LATITUDE promoted the group on its website, in emails, and via their social media accounts.

Open Group vs. Closed Group

Some groups encourage "drop-ins" where new people can join in at any time. That wasn't the case here, where once the group started we stopped advertising for new members. This seemed to have a positive effect, letting the group get to know each other and build trust, which was important when we began critiquing ideas and approaching challenging topics.

Ongoing vs. Set Duration

The group had a set schedule for eight weeks. Having a "deadline" helped us to move from the critical "reading" mode into a more generative "making" mode when we began working on a new project.

Virtual Meetings vs. Physical Meetings

Although we investigated the possibility of incorporating video chat for remote participants, all of our meetings had only physical participation. We would like to explore virtual participation in the future- if for no other reason than it will make the group more accessible to people outside of big cities.

Daytime vs. Evenings, Weekends vs. Weekdays

All meetings took place on Wednesdays from 6-8. Meeting times have an effect on who is able to attend. Groups that meet during the day exclude people whose jobs don't allow them to participate. Groups that meet at night can exclude other people, like new parents or people with family responsibilities.

Alcohol vs. Alcohol-Free

Although LATITUDE has a communal refrigerator that is usually stocked with beer, and they invited us to drink whatever we wanted, the group didn't drink. Although it's a side benefit, it was nice to participate in a group that didn't incorporate alcohol, since so many activities like this center around it.

Interdisciplinary Participants vs. Intra-disciplinary Participants

We hoped we could get an interdisciplinary group of participants. In the end, we had one participant with a background in biology, a journalist, an arts educator, and several artists. The group mostly had backgrounds in art and design.

Host Network vs. Leader Network

Hosting the group at LATITUDE has benefits for doing project work, since they have equipment for making gallery-quality large format digital prints.

Critical Design and Experimentation

On Twitter, Erika Hall recently said, "There's a vacuum of design criticism, because 'design thinking' doesn't offer a framework or vocabulary for criticizing capitalism, and most culturally significant digital design at the moment is the rendering of raw capitalism."[18]

Sometimes when I present work about speculative and critical design, people will say, "I have such-and-such problem at work. Is this a methodology I can use to solve that problem?" In this case I will remind people that approaches like these are probably better thought of as "problem finding" approaches, and not "problem solving" approaches.

Working in a library, one of the things I think about a lot is how to team up with people who have library expertise. I'm always especially on the lookout for ways to work with people that do critical librarianship.[19] In those cases, I would start to lean heavily on their domain expertise when it comes to a specific problem—for example, finding ways that libraries can help a specific marginalized group. Then I tend to concentrate on the "design" part of "design research", but I still try to do it in a critical, self-reflective way. So if I were designing a workshop on a topic like this, I wouldn't just be thinking of traditional workshop design problems, like how to keep people's energy levels high. I would also be thinking a lot about how those kinds of critical perspectives could be woven really tightly into the things people do during the day. I think that this is the design equivalent of thinking about different pedagogical approaches when doing library instruction.

At a panel discussion for the book Bauhaus Futures[20], contributors to the book talked about the challenge of combining a critical perspective with project work in courses they taught in design schools. One contributor specifically talked about the challenges of incorporating critical readings into the courses she taught. In her courses she used to do several weeks of reading, followed by several weeks of making, but it was too difficult for her class to apply the things they read to their projects—so she was experimenting with moving back and forth between critical and generative modes in different ways, maybe even within the same hour, with some critical reading and thinking and making, so that the two could better inform each other.

Based on these comments and our experiences with this group, we put together a short list of potential experiments—different ways we could try

18 Accessed February 16, 2020, https://twitter.com/mulegirl/status/1218568764213493760

19 For example, see the #critlib Twitter hashtag.

20 Laura Forlano, Molly Wright Steenson and Mike Ananny (editors.) Bauhaus Futures. (Cambridge: MIT Press, 2019)

to apply a critical perspective to making.

1. A warm-up exercise, followed by free-form verbal brainstorming. It's helpful if a facilitator takes notes, since so many ideas will get generated and ideas will morph, so it will be hard to keep track.

2. Participants spend 60 minutes brainstorming concepts or ideas to explore. None of these are very fleshed out. Then participants spend 60 minutes writing a short screenplay that puts whatever concepts were interesting in context. Then, participants take that screenplay home, improve it's storytelling, and do research to learn more about unknown pieces (e.g., what might a government program to reduce the number of livestock farms look like...how would the program work, and what kinds of programs and forms would that program produce.)

3. A facilitator takes notes while the group talks. This helps keep track of what ideas come up, and it also helps make sure that no one is being left out. It also has a nice effect of letting people know their contributions matter.

4. Discussion, but when a participant comes up with an idea they like everyone pauses for them to sketch it out. they should make a small visual representation, with a title, so it's easy to remember. There should be ideas being generated all the time...at least every 15 or 30 minutes. The goal is for this process to generate higher quality ideas than brainstorming, by incorporating a critical perspective.

5. Do short critical write-ups (one page?), based on quick sketches. write-ups should incorporate a critical perspective, but they aren't primarily critiques—the goal is to find interesting qualities of whatever idea was expressed.

6. Mini-research projects (one page?), based on quick sketches. The goal is to make an idea more realistic. A mini-research project should take the form of a very short report, like a grade school or high school assignment.

7. Field work as input. Brainstorm about the environment, making quick sketches or screen plays.

8. News/social media as input. Using a news feed as input, make quick sketches or screen plays.

I think with approaches like this, it's important to approach all of these things as experiments. They might not succeed, but I have found that if I give myself permission to experiment, and I critique the way things worked out, that I end up learning a lot about different things. Some of those things are very practical, like "how can I run a good brainstorming session in general?"

I tend to think of design approaches as things that are really embedded in capitalism—so sometimes doing projects like these helps me think about where design approaches are really just encouraging overwork, or overconsumption, or increasing income inequality. I also wonder where ideas from science and technology studies, or feminism, or critical race theory could inspire better ways to do design activities like brainstorming or workshop facilitation. To me, one of the most rewarding things about this kind of work is looking for people who have expertise in those areas, and trying to find ways to incorporate their work from a specifically "design research" perspective.

The reading group was an opportunity to play with a form of adult education. Our group met in an arts organization, and it was composed of college educated people who are interested in the arts. But it seems interesting to think of groups like this in other types of places, with other people. In places like hospice care centers, or prisons, or just people with different political identities. To use the reading group to break "the bubble".

Reaching out to other groups of people would offer more opportunities to think about the biases of design as an approach, and they could give us more opportunities to improve our work, by working closely with people with other perspectives.

Questions for discussion:

What experiments would you like try to combine making and critique?

How might reading groups with different people or topics be different from this one?

What other partnerships with outside organizations could libraries explore?

How Might Libraries Use Speculative and Critical Design?

Shannon Marie Robinson describes critical design as "a form of research through design in which objects and narratives help criticize the status quo and conceptualize theory." She goes on to say that "Critical design may be employed in librarianship to help us bridge theory and practice, exploring current paradigms and approaches to our work, as well as uncovering assumptions about what a library is and what a librarian does.[21]"

21 Shannon Marie Robinson. "Critical Design in Librarianship: Visual and Narrative Exploration for Critical Praxis." The Library Quarterly, Vol. 89, No. 4, October 2019.

Originally, this session was going to be in-person. However, because of the coronavirus we switched from an in-person workshop to a virtual lecture. The things that I had originally planned to do don't work the same online as they would in person—one of those activities was a game, but it doesn't

really work unless people sit close to each other and share physical objects like cards with each other. Now I have a lot of work to do, because I want to figure out how to do these kinds of things during video conferences and not just in-person.

I know that certain groups of people have been asking for these things for a long time: people with disabilities can find it easier to participate virtually, and people who can't afford to go to conferences can often sign up for virtual events. This doesn't solve everything—things are still challenging for people without computers or with slow network connections. But it is something. If we can keep all of these types of people in mind we have a chance to really make improvements as we do more of our work online.

When something like this happens, it's also a chance to think about whether we're doing the right things in the first place. Even if I don't want to, something like this makes me think about whether speculative and critical design is worth doing. Because now, everyone has to figure out how to adapt to what is happening, really quickly. So why bother to specifically do speculative and critical design?

One thing about this kind of design that I think about now is how the relationship between the designer and the client has always been different. This doesn't just apply to people who are specifically doing things like graphic design, it also applies to people like web developers or librarians designing new courses. For the sake of argument, all of these people are designers when they do this kind of work. When a designer is working in a traditional mode, they are "working for" the client in a very literal way.

In this way of working, if the designer notices flaws in their client's project, they will use design to hide or disguise those flaws. Sometimes there are "backstage" workflows which the client wants to hide from the end user. For just one example, end users might call the labor practices of an online store unfair if they knew about them. In the traditional mode designers will make sure that the things that their clients want to hide remain hidden. In many situations these things aren't even made explicit—but it is the designer's job to understand these things. Dunne and Raby might say that this kind of design is "affirmative", not "critical".

Working in a library, day-to-day issues can come up that are difficult to discuss. Colonialism in libraries is one example: say a large research library in the United States has to make decisions about how to provide access to Native American materials. In this situation, the people who produced the material have relatively less power than the library does. How can the library have productive conversations about this?

These can be extremely challenging conversations to have. There will be all kinds of power dynamics in the room: supervisors and managers

at different levels have different challenges when it comes to raising critiques. In the ideal situation, members of the affected community might join or lead that conversation. But those conversations, and getting to that point in the first place, can be a serious challenge. I would like to think that speculative and critical design provides a space to practice having conversations like this: to help people get better at giving and receiving genuine critiques from a variety of perspectives.

It's difficult for people to envision alternatives to the status quo, and creating alternatives to the status quo is difficult in practice. There are norms for professional behavior in every workplace—unspoken rules about how to dress and how to speak, about what topics are appropriate, and how to approach challenging topics when they come up. A lot of social issues that libraries face involve deeply questioning those unspoken norms. I hope that approaches like speculative and critical design can be helpful here, by giving people chances to practice being uncomfortable.

I'm going to close this out by two examples of speculative design that deal with issues around privacy, but they do it in two very different ways. The first has a non-controversial approach, and the second was specifically designed to be provocative. Decisions about how provocative to be are a really dominant concern for a lot of the people who do this kind of work.

The Alternet, by Sarah Gold[22]

The Alternet is a proposal for a communications network where people own their own data. It includes hardware routers that can be produced on standard 3d printers, a set of data licenses, and a data barometer app that describes how the user's data is being used. You can see more information about the project on Sarah's website, including her dissertation and a slide deck about the work, at https://www.sarah.gold/work.html#Alternet.

The Selfish Ledger[23]

This video is about interfaces that modify user behaviors. It was written by Nick Foster, from the Near Future Laboratory and head of design at Google X, and David Murphy, a senior UX engineer at Google. Although the video wasn't officially released, a representative from Google gave the following statement about it:

"We understand if this is disturbing—it is designed to be. This is a thought experiment by the Design team from years ago that uses a technique known as 'speculative design' to explore uncomfortable ideas and concepts in order to provoke discussion and debate. It's not related to any current or future products."

22 Sarah Gold. The Alternet. Accessed April 26, 2020, https://www.sarah.gold/work.html#Alternet

23 Nick Foster and David Murphy. The Selfish Ledger. Accessed April 26, 2020, https://vimeo.com/270713969

It's a very provocative example of this kind of work.

Questions:

Have you ever worked with someone who was very good at providing critical feedback? How did they do it?

What kinds of situations might call for more provocative or confrontational speculative design work?

What types of problems in libraries lend themselves to this approach?

Invitation

This fall I'm going to do another speculative and critical design reading group. I'd like to invite anyone who is interested in participating to do so. The group will be virtual, and I would love it there were participants from all over the world. Based on the participant group we can choose a time to meet that makes sense for everyone, based on people's time zones. If you'd like to participate the best place to keep in touch with me is either by email at john@johnjung.us, or on Twitter where I'm @johnjungdotus.