**It’s Raining Code: Visual, Aesthetic, and Interactive Data**

I want to begin by asking for your input. I have a few prompts and some images and I want to gather your reactions to them.

**[4 SLIDES]**

#1: Take a look at this image and think about and share your reaction (image of rainstorm through window): gather a few responses

#2: Look at this one now and let’s do the same (image of rainstorm from rainy commute)

#3: Listen to this and share with me your emotional state

#4: If I had a spray bottle (don’t worry, I don’t!) and randomly pointed it at the audience, what would your physical reaction be?

I ask about these because I’m curious about your perceptions about rain and our relationship to this specific type of precipitation. We typically have a more positive reaction to rainy days than we do snowy days. There are however more varied reactions. Snowy days are pretty at first, but they typically require work: digging out a car, carefully commuting, making sure your family is safe and protected. Rainy days are fun…when you can stay inside. One rainy day is relaxing, but a streak of them can be depressing and cause negative thoughts. But there’s something whimsical about the idea of being in a rainstorm. Too many rom-coms to count rely on the trope of professing love in an absolute downpour. You know the ones—the impossibly thick sheets of rain through which lovers can hear each other perfectly and never complain about wrinkly fingers, being cold, or where or when they’ll find a change of clothing. All these experiences are backbone of the installation “Rain Room,” which will the focus of this presentation.

The “Rain Room” installation, which was created by Hannes Koch (coke) and Florian Ortkrass (ort-krass) for Random International, allows visitors to walk through a simulated rainstorm without actually getting wet. As an art installation, this piece messes with expectations. The trick, however, lies in data visualization. 3D cameras track users’ movements, turning off the overhead showers and allowing visitors to exit the exhibit dry.

**[SLIDE: I have a short video to illustrate exactly what it looks like: https://vimeo.com/51830893]**

Much like code, the interactive installation reacts to what we tell it to do: “If this happens, then that occurs.” The fun, of course, happens when we get something we do not expect, like walking through a downpour unscathed. This is one of the ideas I’m currently interested in—the unexpected outcome in the way we use items. Whether it’s based on numerous past experiences (such as walking through a rainstorm, for fun or necessity), there is a moment in which we expect a certain outcome, yet something happens which causes an unexpected ending. For this paper, I want to couple that idea of the unanticipated or unexpected ending with the concept of techne (I’ll clarify this connection soon). This presentation will look at "Rain Room" and in order to explore data visualization as an aesthetic experience, but one that messes with our expectations.

**[SLIDE: “Forgetting Technology”]**

Such installations and exhibits play with the experience Nathaniel Stern (2013) calls “forgetting technology”: “[...] technology reduces us to positioned fingers, eyes, ears: data--and very little of it. […] We must forget technology and rather study the encounter it creates, the quality of our movements with them, and the techniques we rehearse in and around them. We must look with, and feel, the body” (21). As a rhetorical practice and as an example of interactive data, “Rain Room” forces visitors to forget what they know about previous interactions with rainy situations and instead re-experience the moment in the present only. This paper also considers how we interact with and experience aesthetic presentations of data. Finally, this presentation will argue that such forms of data visualization act as an embodiment of immaterial rhetorical computation that plays on the tension between expectation and outcome, perhaps invigorating a new variation on the concept of techne.

**[SLIDE: TECHNE]**

So let’s talk about techne. There are two tracks for *techne* (broadly, art or craft): one that gets you to an end point with an assumed course, or something that starts and ends exactly as planned. The other, messier, or stochastic, form of *techne* gets you to that end point, but via an unknown path (Angier, 2012; Roochnik, 2007; Dunne 1997). In order to explain the development of expert knowledge, David Roochnik notes that *techne* can be characterized at two different levels: “Techne 1” and “Techne 2.” The former, T1, is a determinate knowledge where “end is identical to function” whereas the latter, T2, is stochastic, messy, less determinate, and its end is distinct from its function (54, 52). Stochastic is derived from the Greek verb meaning “to aim”; T2, therefore, merely aims at an end point but can arrive there differently every time (Allen 86). T1 represents situations where the outcome will always be the same, much like mathematical equations whose endings are never vary, given they are performed correctly. T2, on the other hand, is used in situations where chance (*tyche*) [ty-key] interferes with the process, forcing someone with expert knowledge to take a different path to access an end. For example, if a cruise ship is scheduled to leave its port in Florida and dock several hours later in the Caribbean, but a storm (a natural, albeit chance, occurrence) interferes with the planned journey, then the ship’s Captain must use his expertise to side-step the storm but still arrive at the same end point. What is at play in this example is the Captain’s use of expert knowledge even in the event of natural forces acting against the original plan. The Captain’s abilities to overcome chance by employing his expert knowledge averted a potential catastrophe between the ship and the storm.

When we think of “use” and *techne*, I find it helpful to consider a few questions: How do we use the tools we make to extend our human abilities? (With rain room, this messes with the natural—we cannot usually make rain, at least on the grand scale.) What happens if we use those tools “incorrectly”? (In this case, making rain storms feel less threatening, and even performing in ways we’re not expecting.) How can these tools be used repeatedly to produce a certain outcome with some sense of reliability? And what happens when the outcomes mess with the reliability of the outcome? While there have been several scholars before me who have asked similar questions (Johnson; Mitcham; Ellul; Winner), it is important to recognize that their contributions have steered the path for these inquiries while also helping to clarify the impact of the use/*techne* combo.

First, it is helpful to consider what “use” actually means. In *Thinking Through Technology*, Carl Mitcham defines use in the following way:

The verb ‘to use’ commonly denotes ‘to bring or to put into service’ and ‘to employ for some purpose’ – hence the ‘useful’ arts and crafts, in the sense of making things to be employed. […] Furthermore, because of its connotations of regularity or commonness ‘use’ seems associated more appropriately with repetitive, not to say mechanical, processes than with creative or original ones, that is, putting into practice as opposed to bringing into existence (230-1).

I’m interested in this combination of techne, use and interactive installations particularly because they demonstrate the confidence we have that we think we know how something will work, that we know how to “use” it properly, but something happens in the in-between that causes a very different reaction or outcome.

Although speaking more about women and performance art, Roberto Simanowski argues in *Digital Art and Meaning* that “Turning the spectator into an actor rearranges the schematics of exhibitionism and voyeurism, redirecting the question of identification away from the exhibited foreign body and toward the interactor’s own body” (121).

* Emphasize difference between performance art (focus on artist/performer) and interactive art (focus on user/visitor)
  + There are blurry lines, here, of course (I’m thinking particularly of Marina Abramovich and Ulay’s Imponderablia in which visitors were aware not only of their own bodies as they passed through, but also conscious of the other nude body (or bodies, considering if they were aware of the other to which they had their back)
  + **[SLIDE: Imponderabilia]**

The idea really lies in what Simanowski as “The shift […] from passive spectator to active user or interactor” (122).

* Some might argue that all art is interactive—there is a reaction or a call for participation from individuals upon seeing or attempting to understand a piece. However, the difference is the explicit relationship between the piece of art and the calling of viewers into it to qualify it as interactive.
  + I think one of the more ubiquitous examples might be Warhol’s Silver Clouds
  + **[SLIDE: SILVER CLOUDS]**
  + There’s this great book *A Touch of Code* (which I’ve brought if anyone would like to flip through it) that really focuses on the interactive [note: the spine is upside down]
* The main differences between the Abramovich, Ulay, and Warhol examples and Rain Room is the technological aspect of the installation. These other examples I’ve mentioned rely purely on the body reacting to either other bodies or inanimate objects
* Rain Room, on the other hand, relies on the interaction between cameras and movement and the technology developed to switch on and off the sensors which cause the downpour to stop around visitors.

With interactive art exhibits, there’s a relationality between the exhibit and one’s consciousness of the body itself. We become aware of how we are feeling, thinking, and moving.

Such ideas are important especially considering the reactions some users had when they were interacting with the installation. For example, someone stated they constantly felt like they were attempting to “Outsmart a system” by moving their arms quickly or trying to fool the sensors.

* This harkens back to what Nathaniel Stern stated about “forgetting technology”—you must disengage from the action of the technology behind the exhibit, that which allows the exhibit to function, and instead interact with the rain itself
* The moment you notice yourself not getting wet, however, or the unintended outcome, is when visitors somewhat snap back into the mindset that there’s an interactivity of technology occurring.
* In another video, which I’m not showing, one of the curators identified this installation as “Performative architecture”—it goes beyond the performative notion that we recognize as performance art, beyond the identity of interactive installation, and instead relies on the performative aspect of the space and experience itself.
  + There’s a lot of sensory action here: think about the noise from the video. The identification of the being in a rainstorm (sights, sounds) is ultimately supplanted by the fact that visitors don’t fully experience the rainstorm as they anticipate.
  + From this perspective, thinking about Stern again, one might feel like they’re controlling the weather: there’s a distinct moment when visitors realize they are in control
    - Originally, there’s hesitation
    - Next, comes an attempt to understand this new space
    - Finally comes the realization that the intended outcome is not the one they’re getting. They are walking through all the markers of a rainstorm, but the biggest expectation, getting wet, is eliminated

I think about the rain room and my own reactions to a situation like this. When I get ready to leave in the morning and see rain, I plan my outfit, my shoes, coat, umbrella, even my route. I do this because there’s an expectation based on numerous past experiences. The rain room, however, messes with these past experiences so much, there’s a completed dislodging of our previous experiences. Before I end, I have one final fun thought about our experiences with rain: I wonder how my dogs would react to something like this. One of my dogs dislikes being in the rain so much, as soon as he sees it he steps back inside

**[SLIDE: World’s tiniest nope]**

I’d be curious to know how many visitors to the rain room hesitated (I’m thinking again about the example I used at the beginning of this presentation—the spray bottle and our physical retreat). That gut reaction—I don’t want to get wet—is the moment of the complete erasure of interaction with technology. The experience, however—I didn’t get wet—is the unexpected moment we all take pleasure in, whether it’s technology switching off the rain sensors above our bodies or whether we luck out dodging raindrops running in from our cars. Thanks!