Thesis Outline

*Expressing Temporality*

I am visualizing representations of temporality because I want to explore what patterns can be revealed and how memory is affected when you redesign time for the digital medium through interactivity and make it material.

1. **Organization of Time (West-Pavlov 2013), (Karlholm and Moxey 2018), (Kubler, George,1912-1996, author and Kubler 2008)** 
   1. Representation of time
      1. Clocks
      2. Calendars
      3. Timelines
      4. Time-series
      5. Literature narratives
         1. Oral narratives
         2. Written narratives
      6. Electronic narratives
         1. Photographic narratives
         2. Video narratives
         3. Digital narratives
            1. Sharing

dialoguing/exchanging

* + - * 1. Preserving
        2. Perpetuating
  1. Absolute time (Newton)
     1. Sequential time
        1. Absolute time
           1. Calendar time
           2. Chronometrical time
           3. Universal time
        2. Time abstracted from events and nature
        3. "measurable" time
  2. Relative time (Einstein)
     1. Dependent on the reference body/subject's frame of reference
        1. time experiences of different observers varies
     2. Dependent on time, space, circumstance
        1. Time inseparable from lived experience
           1. Process of being
     3. space-time continuum
     4. events happen simultaneously
     5. "pure" time

1. **Time and Memory (Karlholm and Moxey 2018), (Kubler, George,1912-1996, author and Kubler 2008)** 
   1. History of events
      1. Living or dead history
   2. Narrative time
      1. master narratives
      2. Meta-narratives
   3. Remembering time
      1. Patterns
         1. re-mining time
      2. the particular
         1. Landmarks
      3. collections of memories
   4. Identities over time
      1. Creation of identities
      2. Fragmenting identities
      3. Destruction of identities
      4. Maintenance of identity
   5. Representing the quantified self over time **(Ajana 2018)** 
      1. Data self over time
         1. times when behaviors occur
         2. amplification of behaviors
         3. Policing
         4. Curation
         5. Collections
2. Perception of Time **(Groom 2013)** 
   1. Experience of Time
      1. Representation of duration (Wittmann 2013, 217-223)
         1. Real-time
         2. recorded time
         3. spatialization of time
            1. Digital explorations i.e. "if an hour was a pixel..."
      2. Interaction with time (Ciccoricco 2015)
         1. dialogue with time
         2. annotated time
         3. Making time physical; "playing with time"
            1. materializing time as data

"digging" in time

past, present, future moments of time colliding

* + - * 1. artifacts of time

qualities of artifacts of time

Aging

Texture

Process

Transformations

Fusion

Actions

Birth

Form

Death

Opacity

* + - * 1. games/simulations **(Ciccoricco 2015)**

replaying/rewinding

pausing time

reversing time (effects)

* + - * 1. direction of time

Linear

top/bottom

forward/backward

left/right

Simultaneous

Stream

past/present/future collide and influence

* + 1. Passing of time
       1. losing/devouring time
          1. fading of time; irretrievability
          2. temporary nature of time

"vanishing" fringe

* + 1. Division of time
       1. Units of time
       2. creation of alternative units of time?
    2. Use of time
       1. Labor and productivity
       2. reactions against time
       3. reimagining the sense of time
    3. Synchronization
       1. Collaboration
       2. Value of time
    4. Repetition over time
       1. connection or break with the future
    5. Cyclical time
    6. Relations to time
       1. relation between humans and their natural environment
    7. Personal units of time?

1. Audience
   1. Design researchers
   2. Journalists
   3. Data artists
   4. Data scientists
   5. General practitioners with data
2. Data
   1. Cultural data
   2. Image data
   3. Ecological data
   4. Narrative data
   5. Self-tracking data
   6. Real-time news
3. Questions
   1. How can alternative views of temporality for datasets with images and rich metadata impact the discovery of relationships among objects and events across time?
      1. How does varying the temporal design of data narratives impact individual memory, collective memory, shared memory?
         1. For example, how can real-time datasets of news stories be represented in a stream of what continues to influence the present, what circulates from past to present regularly to form integral parts of our collective memory, as well as other pockets of meta-narratives crucial to our collective identity?
   2. How can alternate views of temporality impact understanding of rhythm inherent to varying reference bodies to generate greater ecological appreciation?
      1. What other units of time might be imagined to better understand progression of events or behaviors over time?
         1. Can we imagine or play with the idea of personal units of time, which varying reference bodies learn to adapt to universal time, and how does that change the way we perceive our relations to each other and to the world?

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