

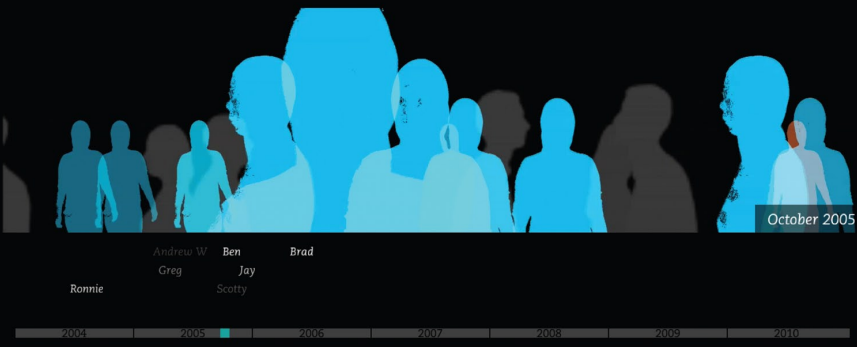
Simple Memory

Those I emailed the most from 07/2004 to 03/2010



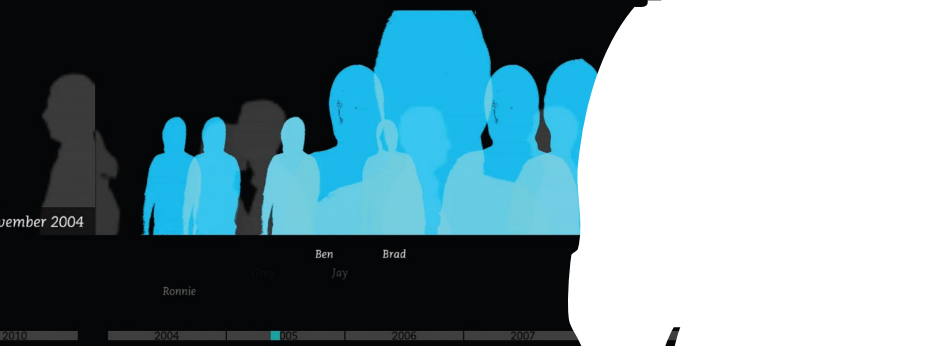
Simple Memory

Those I emailed the most from 07/2004 to 03/2010



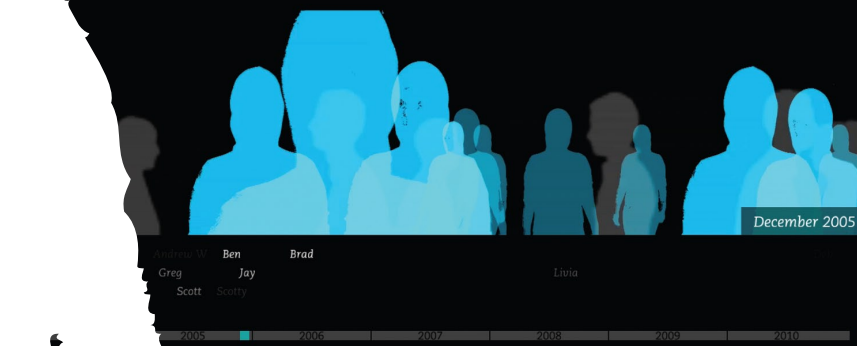
Simple Memory

Those I emailed the most from 07/2004 to 03/2010



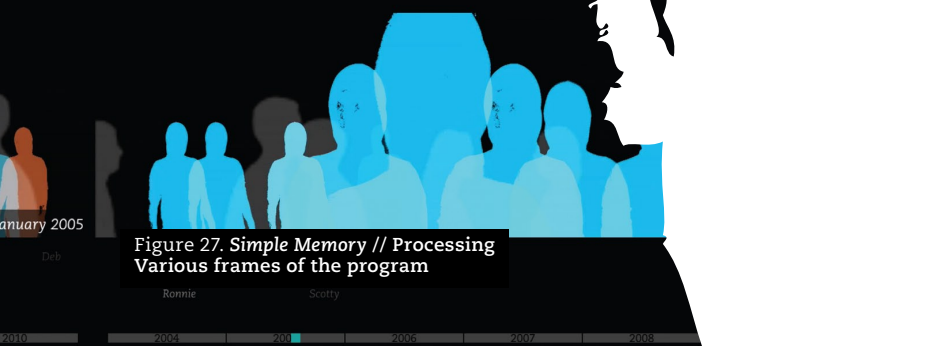
Simple Memory

Those I emailed the most from 07/2004 to 03/2010



Simple Memory

Those I emailed the most from 07/2004 to 03/2010



Simple Memory

Those I emailed the most from 07/2004 to 03/2010

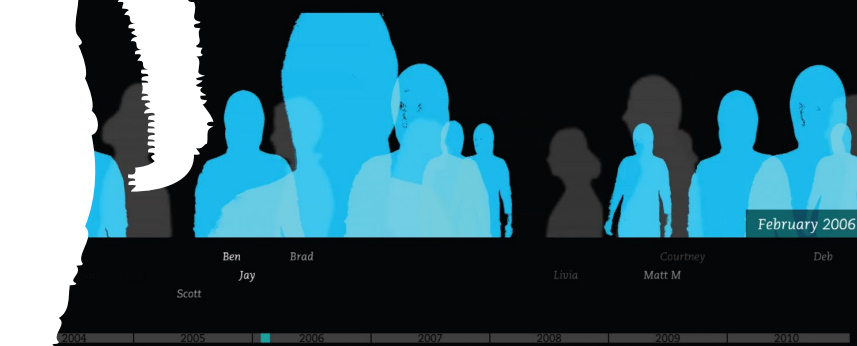


Figure 27. Simple Memory // Processing Various frames of the program

SIMPLE MEMORY

condenses approximately seven years of my email archive into one visualization using the raw data reverse-engineered from Mail-Trends. The top ten people I've sent the most email to each year from 2004 to 2010 are displayed by month and year over time.

Processing // Screen and Prints

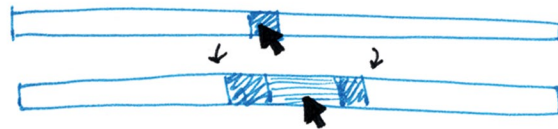
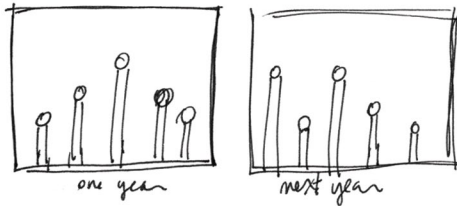
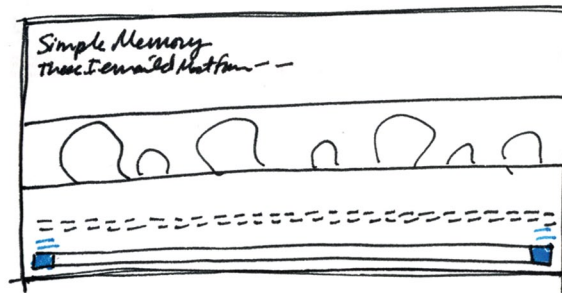
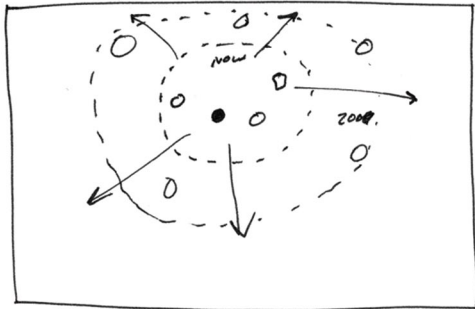
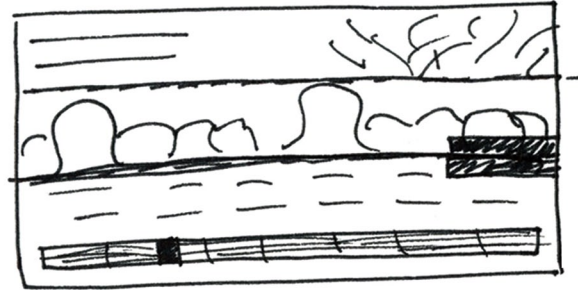
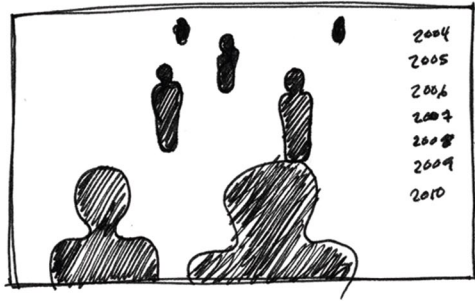


Figure 28. Simple Memory // Sketches
Design & function explorations.

The names in my email archive are printed to the screen as they appear in the archive. Opacity for each name is determined by the number of emails sent in that month. As the number of emails sent each month grows over time, the name grows brighter. As the number of emails decreases, the name becomes more transparent, finally disappearing from the screen when the person ceases to be one of the most common recipients. This basic visualization illustrates a compiled view of email relationships over time. It shows when a person became an important email recipient, how long that person stayed important and finally, it shows when he/she ceased to matter.

Tied with this textual visualization is an animation of silhouettes. Each figure represents a name in the email archive. As the person appears in the archive over time and increases in importance—as dictated by how often I sent messages to them—the figures appear on the screen and walk closer to the viewer. At the peak of my correspondence with each person in the archive, the figures pause. As the number of emails sent begins to decrease over time, the figures

turn around and walk away. The closer a figure is to the viewer, the more frequent the conversations.

The figures are also color-coded using the same categorization used throughout the thesis projects. This way we can see how my use of email has changed over time. Originally starting with primarily personal messages, my archive moves into work-related messages and finally to school-related messages around the time I started graduate school. By combining metadata with visual representation, we can start to see a cohesive narrative of people moving in and out of my life over the years.

With the previous projects, I explored how metadata could be used to create an email landscape, but the narratives discovered were not very interesting nor deep. With that in mind, I decided to extend the data set used to a several year period. When originally using the Mail-Trends program to analyze my email, I discovered a distinct and poignant pattern of different people moving in and out of my life over the years. I felt, however, that showing this information as a series of bar graphs lacked the emotional and visceral impact that the story contained.

By detaching the data from the individual emails they represented and instead, tying it to the person receiving an email, I began to envision a stage, where people entered from the periphery, moved closer to the viewer as the frequency of communication increased, and moved away as that frequency decreased. Although I already had a clear idea in my mind about how this visualization should look, I sketched some alternative versions to see if a different way of illustrating the importance of these relationships might be more compelling. I tried a bird's eye view, showing people approaching and walking away from a center, mirroring the mapping used in earlier explorations.

I tried directly tying the representational figures of each person to a more traditional bar graph. Finally, I considered having people enter through one side of the screen and literally exit stage left. All of these depictions, however, lacked the emotional strength of using the viewer as subject within the visualization. Figures approaching the camera suggested both the increasing intimacy of the relationships as well as the kind of nostalgic, unsettling feeling

experienced when the figures began to walk away.

The primary challenge in coding this visualization was extracting the raw data from the original Mail-Trends program. I had to employ a rather labyrinthine process of reverse-engineering that data to get to a usable final result. After that process was finished, however, the remaining hurdle was how to tie an animation of a figure, walking, to the data. The intention was to have the figure directly animated by the data but in this implementation, and in light of time constraints, I used video of myself, walking to and away from the camera at three different distances. I then edited the video to create a silhouette and used the resulting footage to map the figures, approximately, to the data. I standardized the Mail-Trends data to show the rate of emails per month as a percentage of 100, with people mailed the most having a rate of 100. I then mapped the shortest distance walked to people with rates under 30, the middle distance to people with rates under 90 and the longest distance, i.e., the footage of the figure walking closest to the camera, to people with rates of 100. I chose

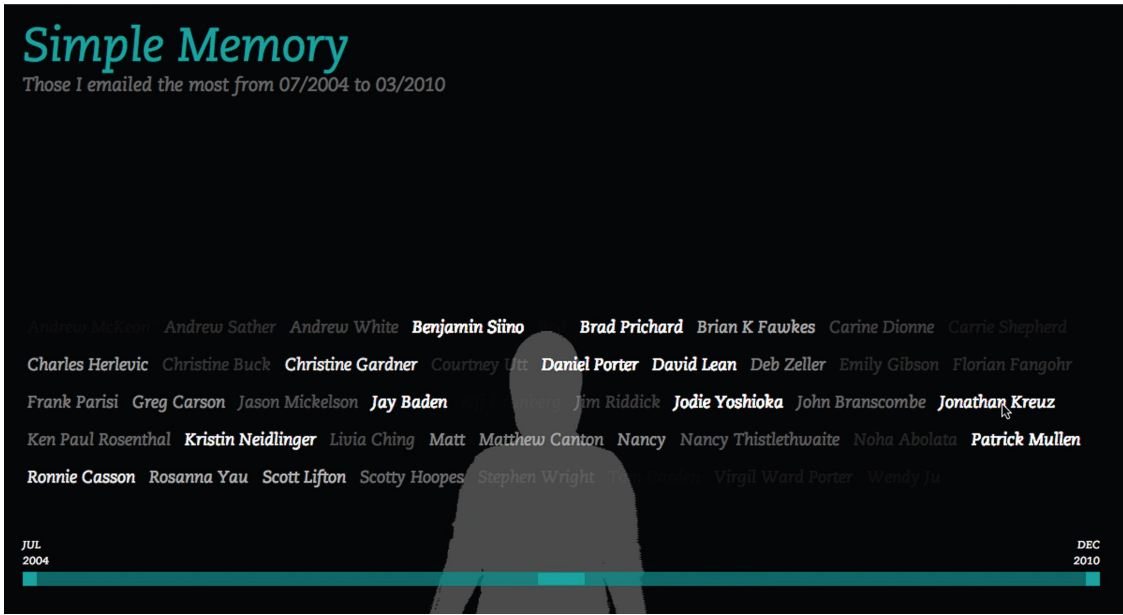


Figure 29. Simple Memory // Processing Early prototype.

these slightly inaccurate representations because they better approximated the actual space I walked to and away from the camera—which was not standardized when I took the footage. Ideally, each animation would tie directly to each specific rate but that would have required either 100 different pieces of footage or 100 different hand-animations both of

which would have put an unnecessary strain on the CPU. Even loading three different sets of footage, 44 times (the total number of people appearing in the archive) posed challenges for the CPU so instead I stitched the footage together as a single movie and manipulated the frame rate and playback rate to match the footage to the appearance of the names.

I also thought it was important to be able to control the animation of both the names and the figures to give the viewer control over what he/she was seeing. The animation of the names and figures works together as a single piece, but it's harder to explore the visualization deeper without having control over time. To that end, I added an additional state to the program that would allow the user to scrub through the animation. Instead of displaying the video, I exported a smaller number of frames that mapped directly to the total number of data points: 84 or 12 months by 7 years. The viewer can now see small sections of the figure animation or an entire full printing of the animation. This part of the program needs more work because each frame currently prints as an animated gif with a transparent background. This method has some aesthetic issues with patchy aliasing and bizarre overlays. One option that might correct this issue is printing each gif to the screen using Processing's blend and filter modes, but displaying so many images on top of each other also requires a great deal of CPU power. Future implementations

should include an off-screen buffer of some kind, smaller file sizes and/or a different file type altogether. Flash might also be a better tool to execute this kind of highly graphical visualization.

Despite its current technical problems, this final piece shows metadata as context above and extending outside of the inbox. Visualizing the ebb and flow of relationships over time illustrates a much deeper narrative about digital communication and how it may be displayed differently to garner a richer understanding of our lives. For example, when I was younger, I tended to furiously correspond with someone for a few months and then never talk to him or her again. I eventually stopped doing this when I became more focused on my professional career. While this piece was specifically geared towards my own interests in seeing my relationships change over time, a similar piece might show another participant a different view of his or her digital life. Perhaps she was active in a mailing list that slowly gained intensity over time or he was part of a series of decision making committees whose activity could be plotted over time.



This piece is simply one possibility of how metadata, displayed as context, can be used to tease out the narratives about our lives that exist in our inboxes.

Figure 30. *Simple Memory* // Processing
Frames from the animation.