Hi everyone, this is Erin Kathleen Bahl, and you are currently in Chapter 3 of my dissertation, "Refracting Webtexts: Invention and Design in Composing Multimodal Scholarship." Chapter 3 addresses my approach to qualitative data analysis--an approach that I'm calling "icon-coding" in which I use multimodal codes to analyze multimodal data. I've found that this chapter gets a little tricky to envision on a first readthrough without some additional contextualization, and so I'd like to take advantage of the resources of a digital dissertation to provide a video overview of where I'm headed in the next few chapters.

I want to start out by touching back on the research questions driving this project. First, what forces influence invention in designing a webtext, as measured by change across drafts? And second, how can researchers use autoethnography to investigate digital invention?

To answer these questions, I'm using qualitative codes generated from examining autoethnographic invention narratives in connection with selected webtext drafts (with published and interview invention narratives to help check my own work against that of other webtext composers). I then use these codes to map out the ways three salient forces (people, tools, and metaphors) influence change across drafts in designing webtexts. Again, these three aren't the only forces influencing webtext invention, but they are the ones I'm focusing on for the purposes of this project.

In using these codes to sort through the data, I identify triads of codes that I can apply consistently across different kinds of data that document webtext invention processes, in this case webtext drafts and invention narratives. These triads consist of three sets of icon-codes dimensionalized by shape and color. Each triad contains three main elements:

> -the force being examined (in this case, types of people, tools, and metaphors acting to cause a shift in the webtext's design);
> -the influence, or my interpretation of the way these forces are acting on the webtext's design
> - and finally the piece, or the webtext element being acted on that demonstrates this shift

Here's an example of how I apply this coding system to analyze a passage from Delagrange's published invention narrative describing a change she made in the design of her webtext, "*Wunderkammer*, Cornell, and the Visual Canon of Arrangement." This passage describes an instance in which she makes a change in her webtext's design based on the influence of a particular person, a *Kairos* reviewer. The quote reads:

> "A *Kairos* reviewer suggested making the subsection navigation [the leaves and shells] a bit more informative,' and I agreed that more wayposting was necessary, although not so much that the slight tension of not knowing quite where you are in the images, and in the text, would disappear."

For the purposes of analysis, I summarize the passage as follows: "A reviewer suggested making the subsection navigation more informative, which inspired Delagrange to add more wayposting." I then use my icon-code analytical system to identify this passage as an instance of an "Editor | Suggest | Navigation" triad, in which a change in design (specifically, in navigation), results from a person (in this case, an editor) influencing the invention process (in this case, making a suggestion). If I had access to the specific draft being described, I could apply this icon-code triad directly to the draft itself to highlight the chance and influencing factor. And this is how I do apply the codes to analyze my autoethnographic data. However, because I'm working with alphabetic text for the published and interview narratives, I present the icon-codes in a line next to my summary of the passage being analyzed.

I want to emphasize that this coding system is one approach to synthesizing a lot of multimodal webtext data and examining changes across drafts in a narratively contextualized way. These codes do not exhaustively account for all influences on invention in any way, and have been developed out of selective engagement with my dataset, as I explain in more detail in the following chapter. Rather, these codes are intended to be flexible heuristics for making sense of complex multimodal invention processes, both for composers navigating these processes and for researchers examining them. I'll continue to expand on this coding system in future versions of this project, but for the time being, I encourage you to consider how you might adapt these codes to account for the forces, influences, and draft changes most relevant to your own invention processes.

Here, briefly, are the icon-codes, which will be unpacked in greater detail in the following four chapters. These codes are also available for reference in the center of the navigation bar on all pages; clicking on a shape or a line will bring up a pop-up box with all the codes for that category labeled and dimensionalized by color.

First are "people", which I break down by role: editors, collaborators, consultants, colleagues, and students.

These people exert six types of influences, which I label motivate, halt, give, inform, suggest, and re-envision.

Next are "tools", which I break down by primary purpose: image editing, presentation, web editing, text editing, audio editing, and video editing.

These tools exert five types of influences: rethink, engage, adapt, afford, and limit.

Next are metaphors, which I break down based on the mode via which the metaphor emerges in the webtext's design: linguistic, visual, aural, conceptual, spatial, and gestural.

These metaphors exert five types of influences, which I label synthesize, emplace, interact, symbolize, and emphasize.

Finally are "pieces", which I break down based on the way the piece functions within the webtext as a whole: as base, navigation, splash, code, text, media, or total project components.

So these are the codes I'm working with for the purposes of this project, and I now want to briefly introduce how I'm applying and representing them in the chapters that follow.

So to analyze my data, I've generated a large set of icon-code triads; the triads derived from the autoethnographic invention narratives are applied directly applied to the autoethnographic drafts, and the rest are presented along with the passages they analyze in the published and interview invention narratives. The autoethnographic drafts and invention narratives themselves can be found and explored in this project's "Case Study Hub" section; the triads are included in each chapter's "analysis" section as well as this project's appendix.

Using charts, I visually map out triads of icon-codes in order to observe general patterns, which can then be examined in greater contextualized detail in the narrative passage each triad represents. Each set of codes represents my analysis for a specific selection of invention narrative data, some of which can be presented directly with the changes in drafts they describe. These codes visually summarize quotes that explain motivations behind changes in a webtext's design as it develops.

This chart, for example, maps out the "people"-based triads for the autoethnographic invention narratives. Notice, for example, in the row with the orange "people" icon and the column with the purple "piece" icon, there are four green lines and two light blue lines. The first light blue line represents a "people"-based influence that occurred in Draft 3 of "Dancing Across Media."

On the coded drafts, this particular icon-code set appears as the triad labeled A on the people-coded analysis for Draft DM3. I summarized this influence as follows:

> "Kaustavi [my collaborator] responded to this draft with suggestions to change corners, make backgrounds more diverse, and add a video of the dancing body."

I then coded this influence with the icon-code triad "Collaborator | Inform | Media." Although this code only represents a facet of the complex action described, it highlights an important aspect of my collaborator's influence in this scenario—namely, that the changes she recommended to the design were informed by her specialized knowledge of classical Indian aesthetics, and *Odissi* dance in particular.

Notice also that the row along with the purple "people" icon is empty in this chart. That's because it represents "students", which is a "people" code that did not appear in my autoethnographic invention narratives. However, I later added it as a code because students

appeared as important influences several times in the published and interview invention narratives, as those charts will demonstrate.

I use each chapter's discussion section to unpack this dense data and determine what light it sheds on invention processes behind changes in webtext design. In the discussion sections, I zoom in on specific code triads as illustrative examples.

The three analysis chapters are organized based on the forces investigated (people, tools, and metaphors); the analysis and discussion in each chapter focus primarily on the types of influence these forces exert, and "pieces" are grouped into the discussion as a whole.

Along with the charts of icon-code triads, I provide several examples of what these codes look like in context when applied to the twelve key drafts from my autoethnographic case studies. I combine these visually coded drafts with verbal description in my analysis section to walk the reader through my findings and their implications. Additionally, I provide examples of these visual codes along with each key draft in the "case study hub", so readers can see how these static coded versions relate to the dynamic hypertextual drafts being analyzed.

Thank you for your patience! This may seem like an overcomplicated approach in many ways, and there's still plenty of streamlining to do. The benefit of this system, though, is that it keeps significant changes in webtext design across drafts contextualized in a composer's narrative experience, rather than as isolated formal features. Additionally, it enables comparison across multiple design shift/experience pairings in a dataset that includes several different webtext projects and composers. Finally, this approach develops a qualitative analysis system that uses multimodal codes to make sense of multimodal data, rather than relying on alphabetic language as the sole analytical mode. It may take additional work both to explain and to understand, but I hope at the very least it opens up possibilities for considering what a range of modes might offer as resources for mediating and representing qualitative analytical work.

Thank you for listening!