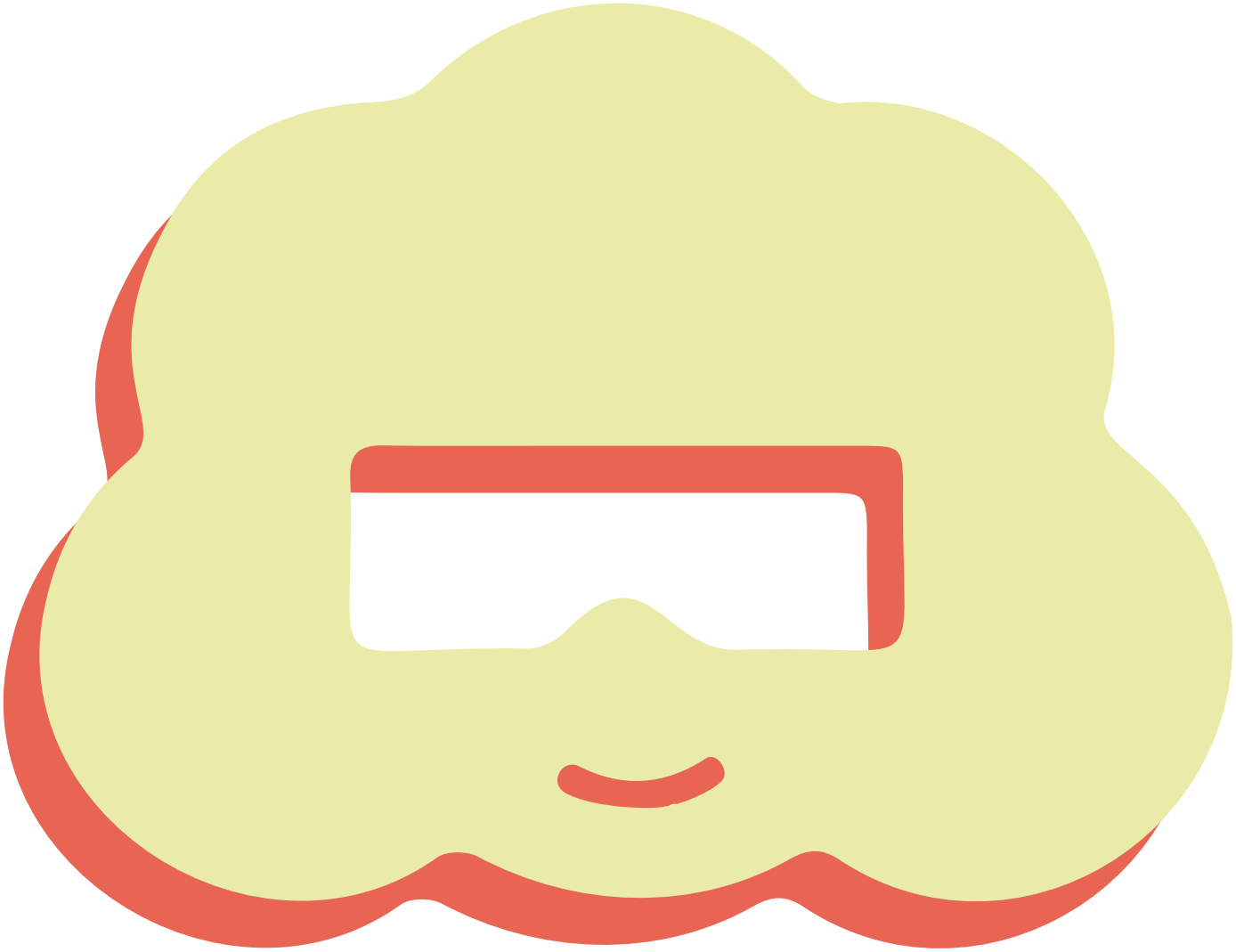
vol. 2 | System & Process



Digital Literacy:

System Thinking & Changemaking

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[1] WHERE IT STARTED

It all started with INFO 3620, which we took in Winter 2022. We were to design a magazine that would explain the 17 UN Sustainable Development Goals and focus in on a local problem that relates to one of the Goals.

“How might we demonstrate what’s at stake regarding the data we generate and how it is used without our consent?”

This question originally aligned with UN Goal 16: Peace, Justice & Strong Institutions, as we thought it was important to explore the topic of data privacy and security. How the government handles our data, how companies handles our data, and how data can be made more sustainable by 2030 were all topics we tried to explore through this project.

This became the foundation to our Systems Making and Changemaking Project that you see here today!

[2] RESEARCH PROCESS

Executive Summary

The main purpose of this research dossier is to consolidate the relevant research as a method to contextualize the problem of demonstrating the importance of digital literacy, and suggest practices which support the development of digital literacy skills. While conducting a literature review of existing academic knowledge sources, it also draws on interviews conducted with subject-matter experts and professionals to define digital literacy, providing insight, suggestions, recommendations, and guiding further academic inquiries. This research identified four established themes in the study of digital literacies which introduce strong pathways for resolution, social impact, and 'sense making' in the context of the United Nation's Sustainable Development Goals, specifically goal 4 - Education, target 6 "By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy". Those themes being, (1) digital literacy supports literacy development, (2) digital literacy supports engagement, usage, and confidence in digital spaces, (3) digital literacy informs sustainable development and inclusion, and (4) digital literacy skill requirements continue to rise in Canada and around the world.

Initial Research Questions:

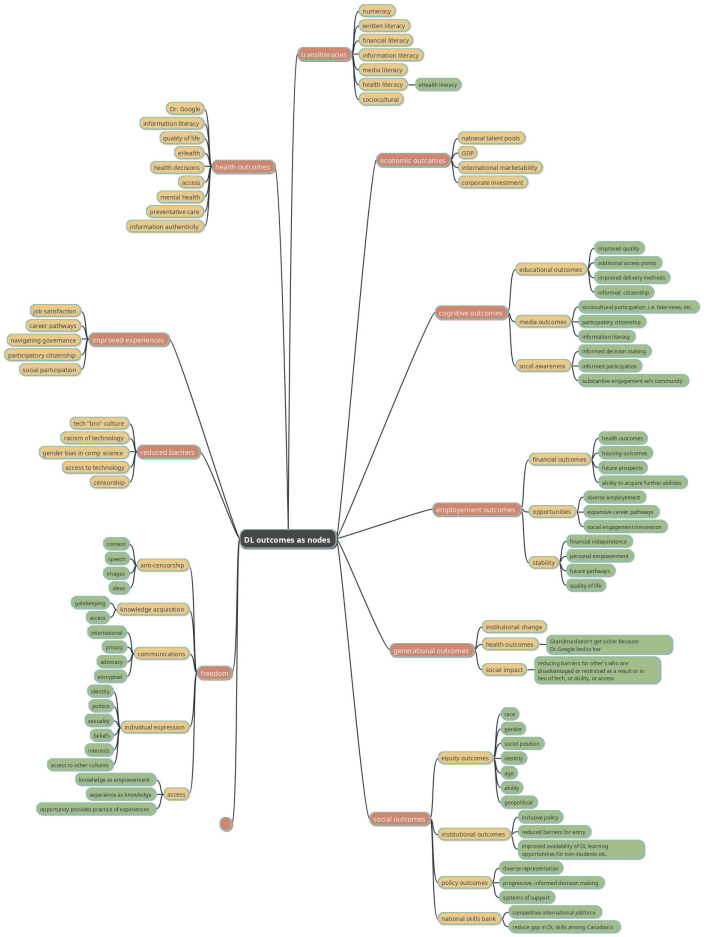
- What is the data regarding access to digital infrastructure (i.e. connectivity, tools and equipment) and digital literacy skills?
- Where does the "representation of diverse realities and viewpoints" (i.e. inclusion) intersect with digital literacy skills?
    - Does this position of privilege and access (i.e. having your own tech vs using public or shared machines) enable more opportunity for these experiences, and therefore higher digital literacy?
- Does 'Human-centred design' of user interfaces and experiences account for access, privilege and inclusion in this sense of supporting digital literacy development?
    - If not, where is the blind spot?

All screenshots on this page are taken from our Research Dossier

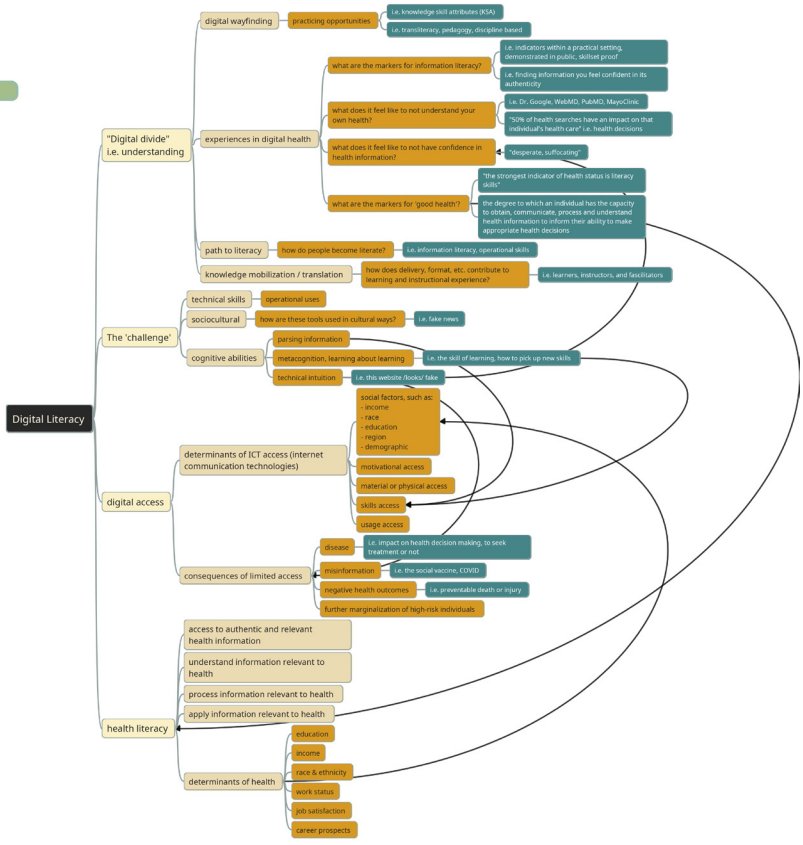
At the start of the Fall 2022 Semester , we were in INFO 4620. Our first job? To research on a social issue related to one of the 17 UN Sustainable Development Goals. We were allowed to continue with the topic we used in INFO 3620, but we were no longer looking at how to SOLVE the problem, but rather make sense of our problem, and eventually inform others about this problem. We collected information to create a research dossier, combining our literature review, SME interviews and fieldwork together into one document.

With data sovereignty still fresh on our minds, we tried our best to frame our research around the idea of data security and protecting our own data. But we hit a wall. There was too much content, we were stretching ourselves too thin. Our wonderful librarian help shifted us from data security to digital literacy. He introduced to us various concepts, including transliteracy, which really helped us get the ball rolling and helped us really understand which path we wanted to pursue when it came to understanding the digital world and how people interacted with it.

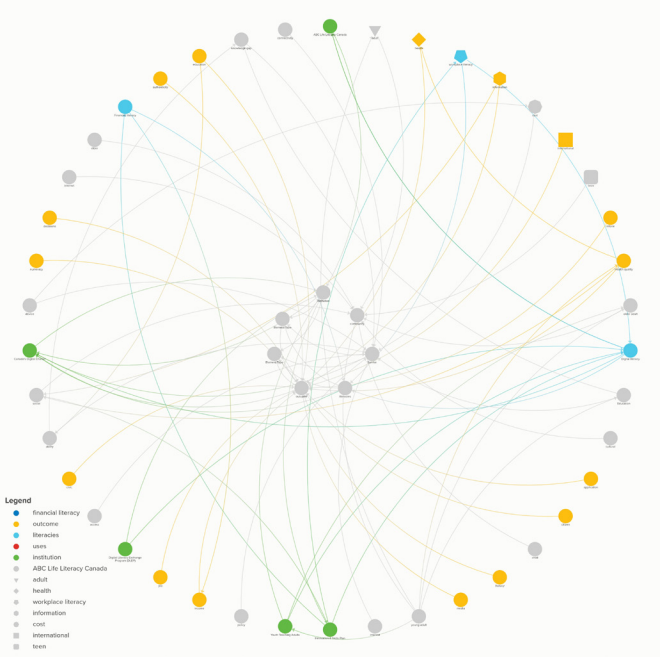
[3] DESIGN PROCESS

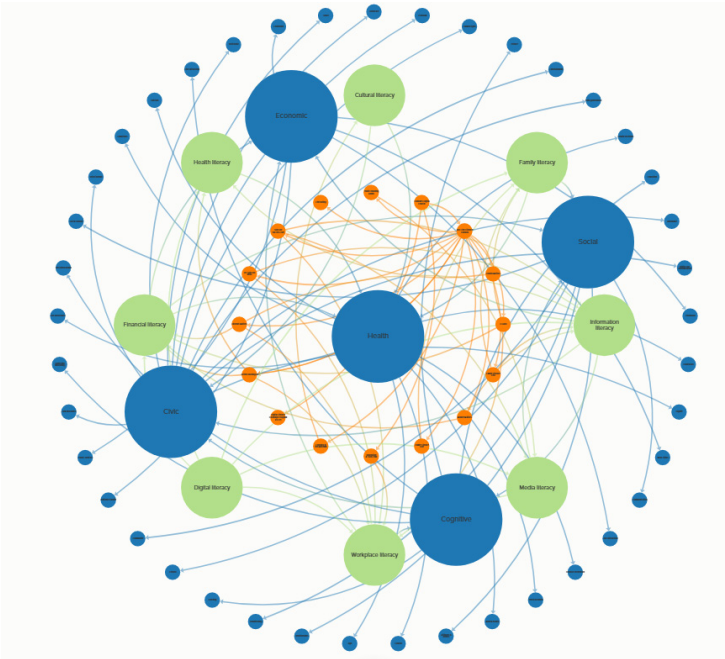


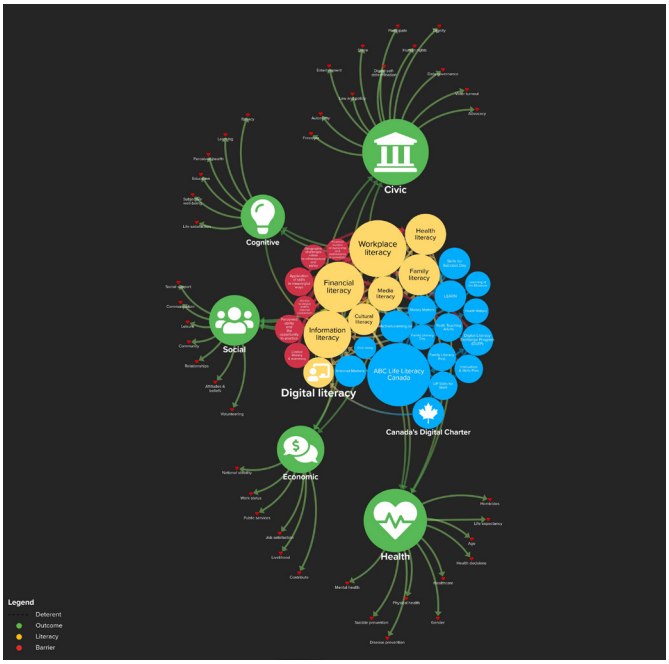
This is the start of our system! Lots of words, lots of nodes, lots of connections. We had lots to talk about after our research.

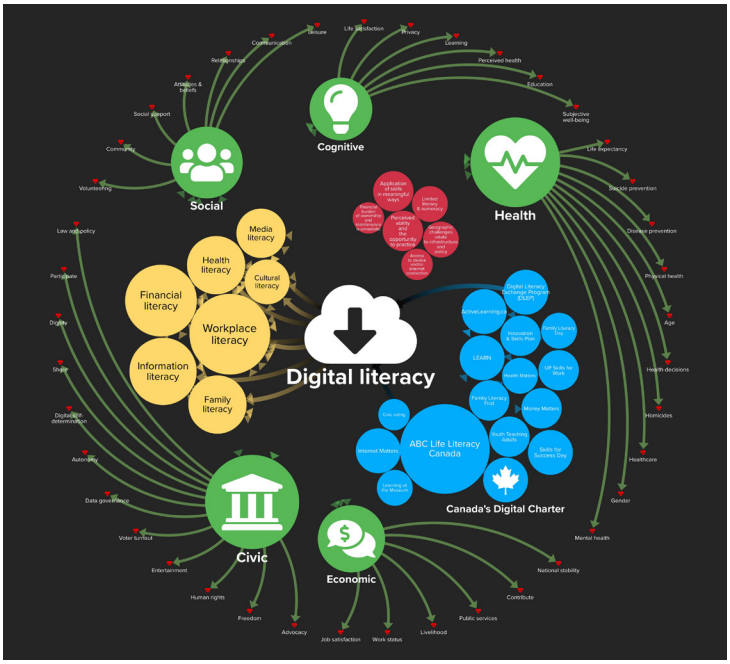


[3] DESIGN PROCESS CONT.



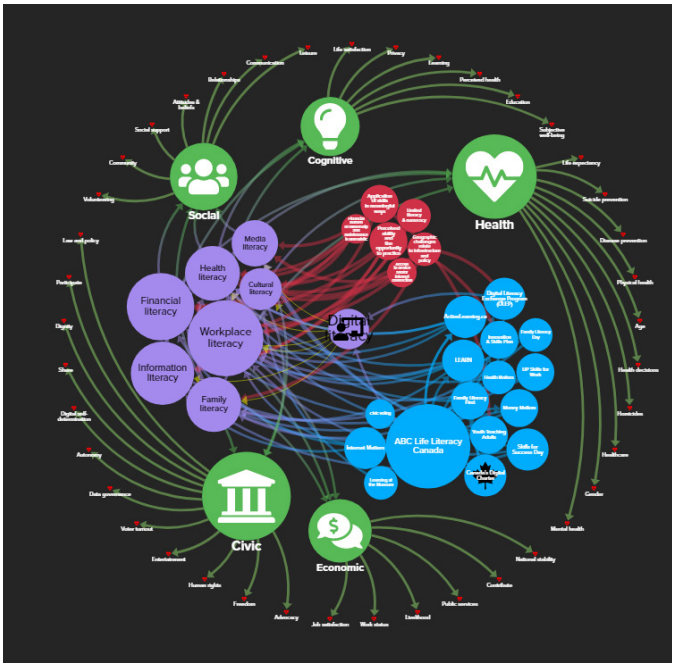


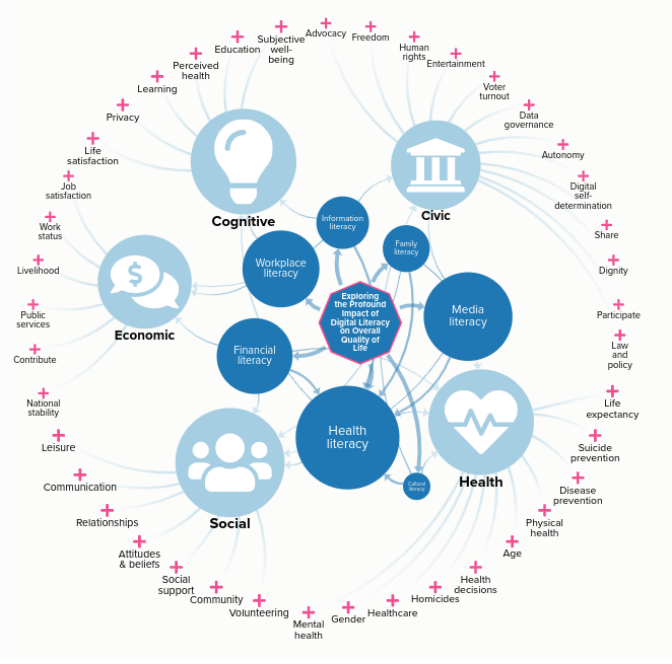




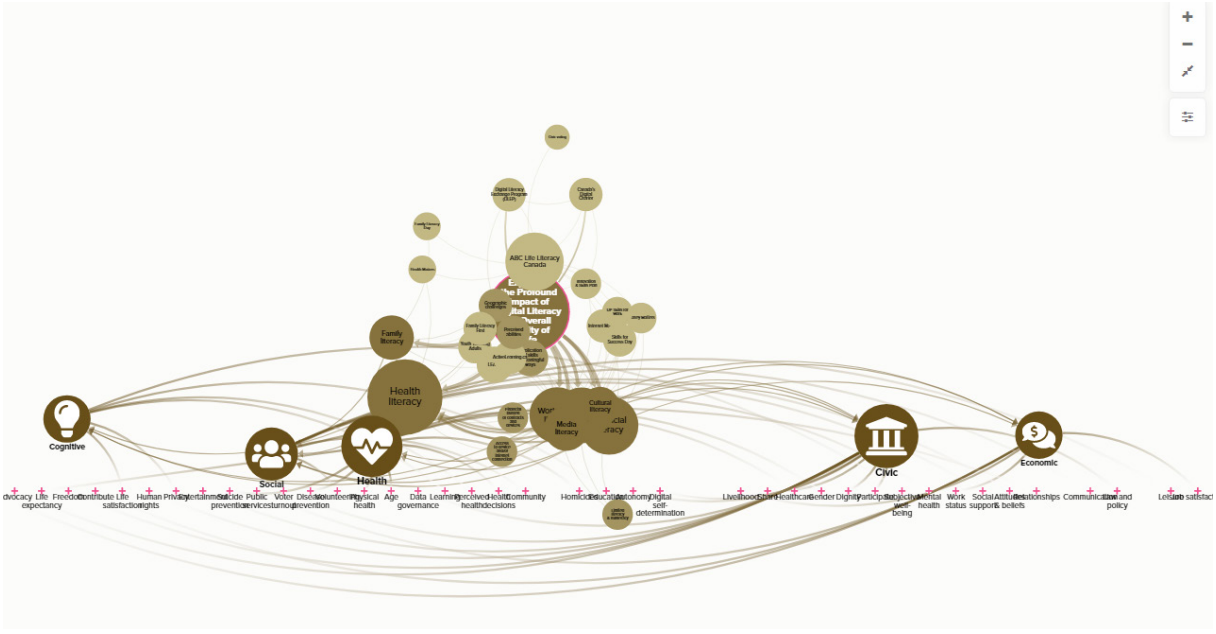
The evolution of our systems map. There were definitely many different iterations, and many different “accidents.” Our system map was made using Kumu, and it was a learning process along the way.

[3] DESIGN PROCESS CONT.



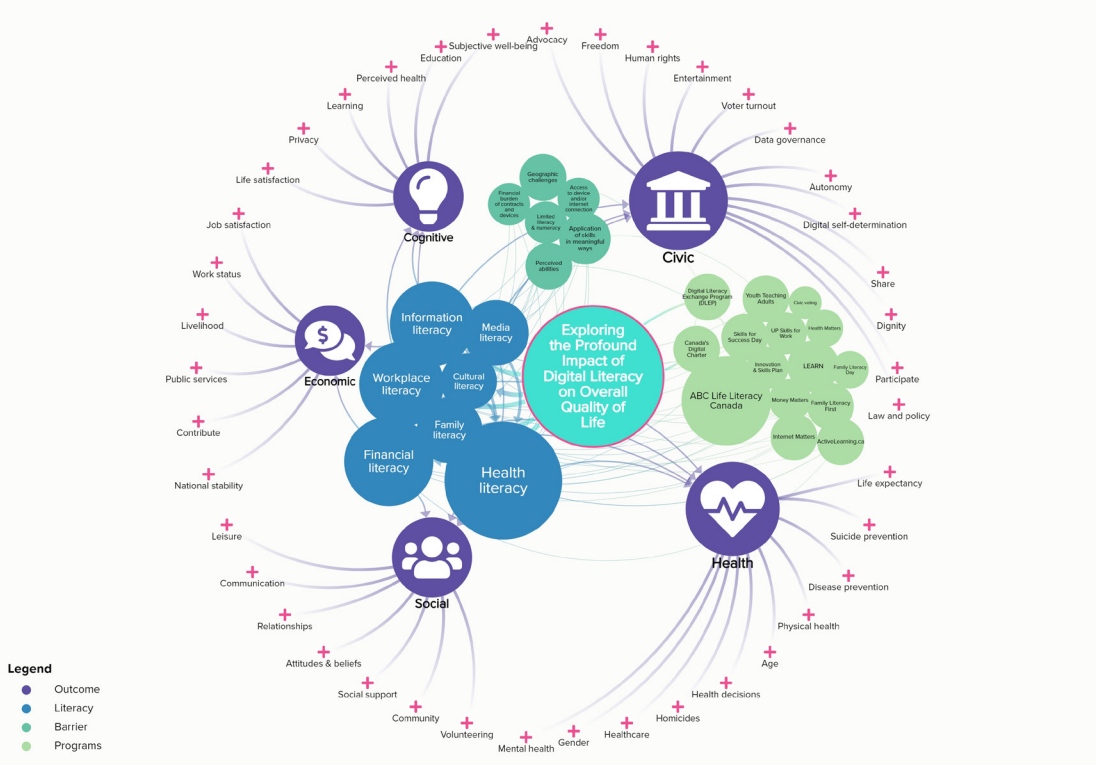


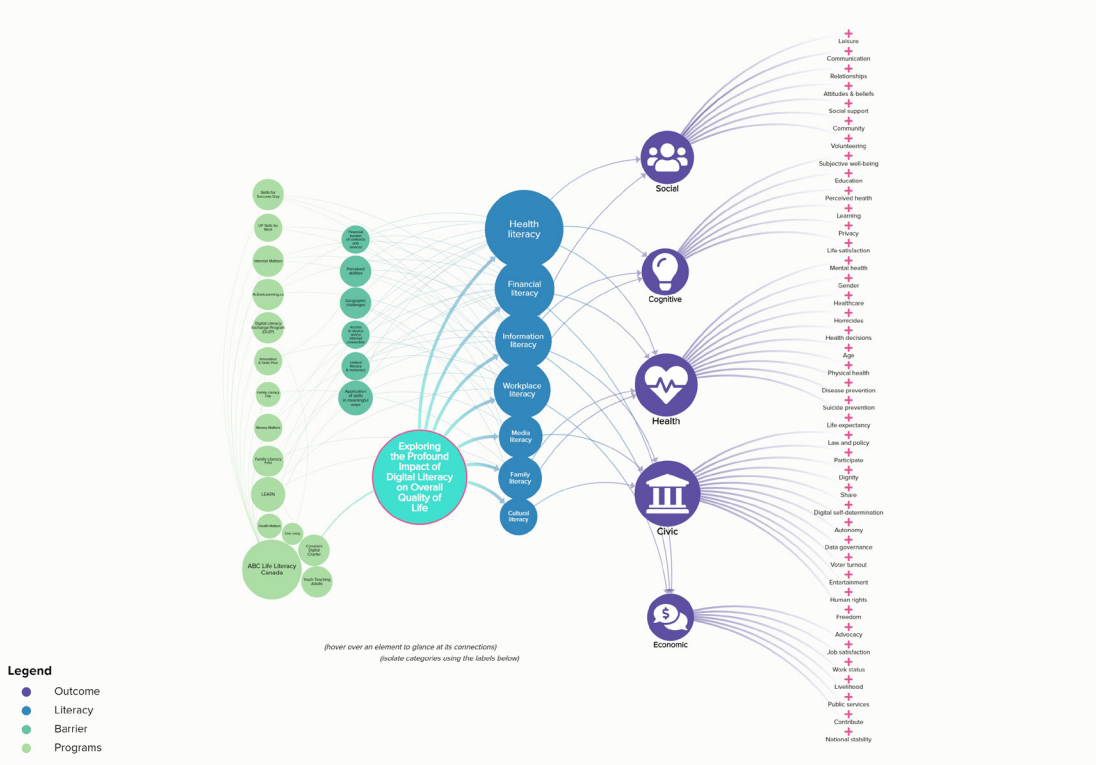
Even more iterations, we played around a lot with colour and trying to make the whole system cohesive and drawing attention to the right points.



There were points where our entire map just decided it didn't want to cooperate with us. Here's an example, where things just decided to be a straight line

[4] FINAL DESIGN





The two versions of our final systems map! In fact, the whole map is interactive on Kumu right now.