

Faculty of Design

2023

Gigamapping Rapid Changes in Working Life: Service designing a new service for new labour and welfare administration in Norway

Suoheimo, Mari, Chan, Daphne and Morales Vega, Marieliz

Suggested citation:

Suoheimo, Mari, Chan, Daphne and Morales Vega, Marieliz (2023) Gigamapping Rapid Changes in Working Life: Service designing a new service for new labour and welfare administration in Norway. In: Proceedings of Relating Systems Thinking and Design Volume: RSD12, 26 Feb - 06 May 2024. Available at <https://openresearch.ocadu.ca/id/eprint/4956/>

Open Research is a publicly accessible, curated repository for the preservation and dissemination of scholarly and creative output of the OCAD University community. Material in Open Research is open access and made available via the consent of the author and/or rights holder on a non-exclusive basis.

The OCAD University Library is committed to accessibility as outlined in the [Ontario Human Rights Code](#) and the [Accessibility for Ontarians with Disabilities Act \(AODA\)](#) and is working to improve accessibility of the Open Research Repository collection. If you require an accessible version of a repository item contact us at repository@ocadu.ca.



**Relating Systems Thinking and Design
(RSD12) Symposium | October 6–20, 2023**

Gigamapping Rapid Changes in Working Life: Service designing a new service for new labour and welfare administration in Norway

Mari Suoheimo, Daphne Chan, and Marieliz Morales Vega

Our globe has been challenged in the past years with wicked problems such as COVID-19, the Ukrainian war, and global warming. These phenomena create impacts on our society and the services we design. The New Labour and Welfare Administration (NAV) has awakened that to help individuals, it is strategically essential to help the companies and institutions that employ the citizens. Services created for the companies could lessen the impact of massive layoffs or resignations. Still, it is good to remember that when someone in the marketplace might be losing their position—others may be gaining it—and this may be in response to the need for a rapidly new workforce.

Oslo School of Architecture and Design, Master of Design students in the Systems Oriented Design course created one gigamap as a class to create a shared understanding of how these impacts influence the micro, meso and macro levels of the services that NAV wishes to create in the future. As a novelty, the mapping applied structure from Geels' Multi-level Perspective (Geels, 2011) to understand how the impacts create transitions and how they could be handled in the services designed. Also, the process of gigamapping showed how mapping itself can be a good starting point for a service design process.

KEYWORDS: gigamapping, systemic service design, drastic changes in working life, public services, multi-level perspective

RSD TOPIC(S): Cases & Practice, Mapping & Modelling, Sociotechnical Systems

Background: Rapid changes in working life

The New Labour and Welfare Administration (NAV), like many other institutions, have struggled in the past years with rapid changes such as COVID-19, the Ukrainian war, and the green transition (European Commission, 2019) that is put forth by the European Union. This has made NAV rethink its strategy, as their common goal has been to help individual citizens in Norwegian society. As the impacts, the wicked problems (Rittel & Webber, 1973) have introduced rapid changes that may sometimes lead to massive lay-offs or resignations, thus making individuals dependent on social security from NAV.

Early collaboration between companies and NAV can create better resilience in these specific situations and at least lessen the possible impact. It is also good to bear in mind that when one company or a business area might be the “loser” of the impact, there are also companies benefitting from the changes and thus need rapid employment. This is also a place of opportunity for NAV.

Case: Gigamapping the complexity

Oslo School of Architecture and Design Master of Design students in the Systems Oriented Design¹ three-month course module took a deep dive to understand what issues NAV should consider when beginning to design this new service that attends companies when rapid changes happen. This is a paradigm shift inside NAV to transit from the micro (individual) level to the meso (company) level, but still understanding the macro and the possible different landscapes and wicked problems that bring the change is also important. For this reason, gigamapping (Sevaldson, 2011) was used to create an understanding of the complexity at all three micro, meso, and macro levels. The student groups were divided between these three levels, with one presenting NAV separately.

¹ <https://aho.no/en/studies/master-design/master-design-programme-structure>

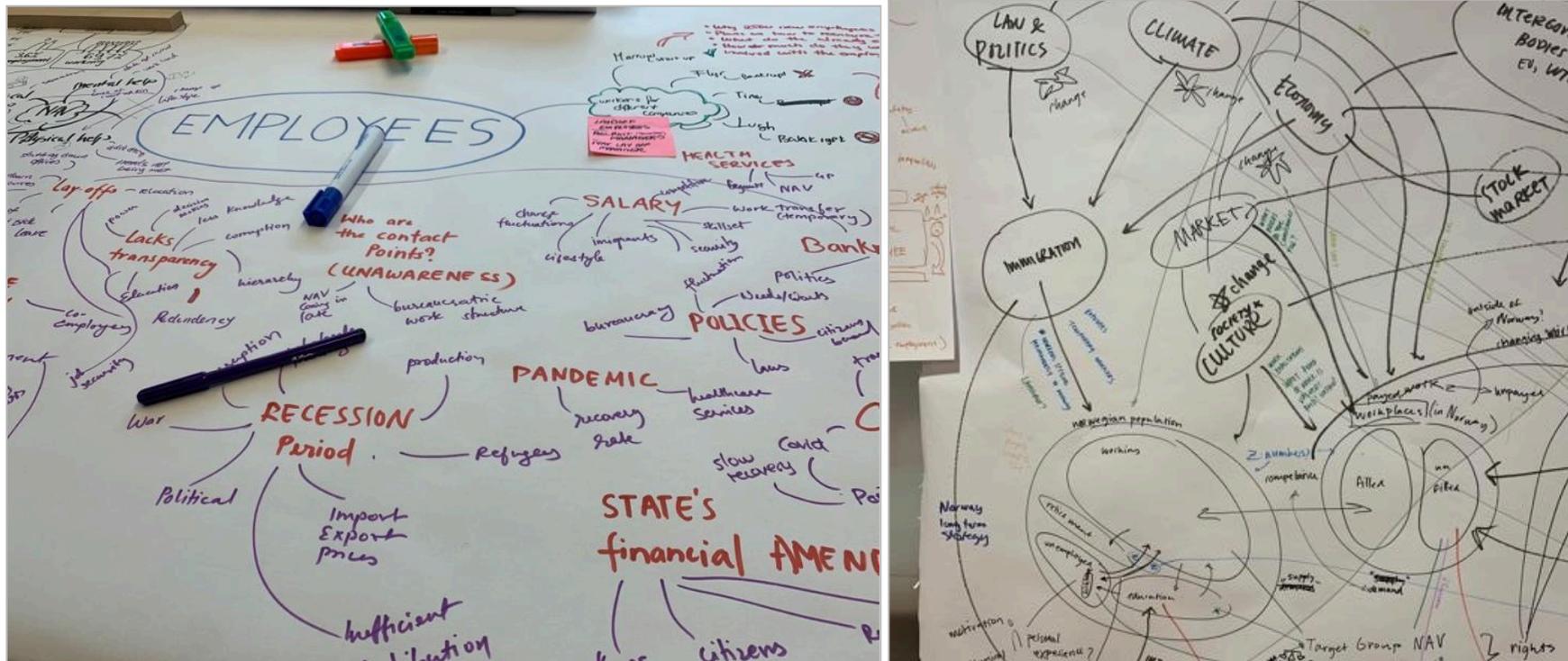


Figure 1. The mapping process began by making it by hand on several large papers.

The mapping began with desk research for two weeks to create an understanding of the complexity. First, each group created maps by hand of the information gathered (Figure 1). The students from the micro level mapped all the services that NAV offers for working people. The meso and NAV teams were investigating the relations of the companies with NAV and possible services that today bridge the two entities.

The macro level group dug into different policy reports and publications on the current strategies that shape the landscape of working life in Norway and Europe, such as the global health and green deal. Students also brought structure to the mapping from Geels' Multi-level Perspective (Geels, 2011) to understand how the transitions are occurring. A search with Google Scholar using the search words "gigamap" and "multi-level perspective" resulted in only three publications. One of them was only a reference, another did not make a connection between the two words, and the third one was not open access. At the next stage, the students brought the four maps into one document in Figma (Figure 2), thus combining the areas in common and making relations between the different fields, although the class realised that it was not the easiest software to create connections. Each group had a signed group leader for a designated time to aid groups in exchanging knowledge between themselves and NAV.

Students applied ZIP analysis—**Z**ooming, **I**ntervention and **P**otential (Sevaldson, 2018). Zoom or Z-points were put on the map in the areas that needed deeper zooming. There were other areas that would require interventions—and actions to be taken that often went hand-in-hand with potentials. Finding a problem area comes with a potential, a way to make an intervention to make it better. Meetings were held with the people from NAV to find suitable cases from the discoveries of the map for each group to continue their work and create better service for NAV. In Figure 2, the ZIP points of each group were gathered into one area separately on the right side of the map to aid the discussion. The students carried out the work from there using service design methodologies and tools such as interviews and workshops to continue the development process.

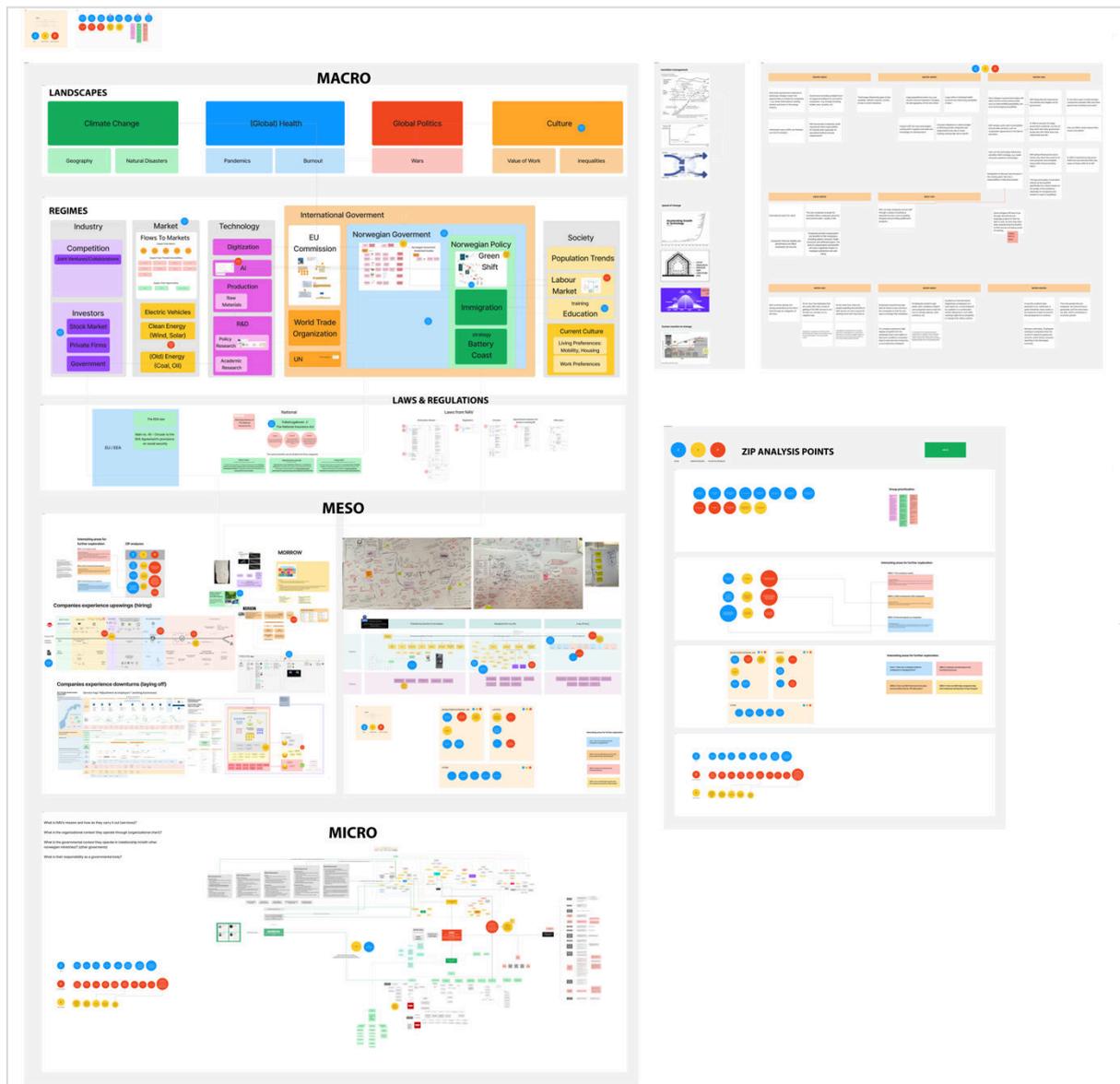


Figure 2. The maps made by hand were brought and processed in a Figma file.

Findings and the novelty of the study

One of the novelties of this map is how it applies Geels' Multi-level Perspective (Geels, 2011) by bringing the issues from the landscape, macro level wicked problems such as climate change, global health, global politics and culture and their influence on the regimes, the governmental institutions as NAV or companies. At the micro level, the employees are the ones who are suffering the consequences. This kind of gigamapping using Geels' Multi-level Perspective (Geels, 2011) is one way of beginning to understand how transitions happen in society and how to plan services accordingly in a systemic manner rather than allowing the rapid changes to happen in an aleatory way, thus bringing more resilience to the system. This is one way how transition design and service design can be bridged when designing transitions in services, which has been pointed out previously as a future research area.

The feedback from the students' work in the middle- and final presentations was positive, and the people present wished that more people inside NAV would have heard the groups. One described the work from the NAV group as "on the spot". NAV service designers said they would apply the manual to create trust with companies the meso group had created as their project outcome.

Gigamapping showed essential areas that were considered in the service design process, making the service design more systemic. The process could be called as systemic service design since it applies system-oriented design principles to begin the work. This kind of mapping allows service designers to understand more holistically in what context the service is placed and what consequences it might have in a system. We recommend more future studies on bridging gigamapping and systemic service design in creating transitions.

References

1. European Commission. (2019). *A European Green Deal*.
https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en
2. Geels, F. W. (2011). The multi-level perspective on sustainability transitions: Responses to seven criticisms, *Environmental Innovation and Societal Transitions*, Volume 1, Issue 1, 2011, Pages 24–40,
<https://doi.org/10.1016/j.eist.2011.02.002>
3. Rittel, H. W., & Webber, M. M. (1973). Dilemmas in a general theory of planning. *Policy sciences*, 4(2), 155-169.
4. Sevaldson, B. (2018). Visualizing complex design: The evolution of gigamaps. *Systemic design: Theory, methods, and practice*, 243-269.
5. Sevaldson, B. (2011). GIGA-Mapping: Visualisation for complexity and systems thinking in design. *Nordes*, (4).

Authors

Mari Suoheimo | The Oslo School of Architecture and Design | mari.suoheimo@aho.no
| <https://orcid.org/0000-0001-6847-0314>

Daphne Chan | The Oslo School of Architecture and Design |
Daphne.Lara.Uy.Chan@stud.aho.no

Marieliz Morales Vega | The Oslo School of Architecture and Design |
<https://www.linkedin.com/in/marieliz-morales-vega-86055a145/>

Acknowledgements

We wish to acknowledge the students of the Oslo School of Architecture and Design MDes, Service Design, who created the gigamap and the concepts during the course.