"The Use of Digital Media and Artificial Intelligence Among Children and Youth in Estonia and Europe: Opportunities and Risks" (media and communication, sociology)

The doctoral project is based on the quantitative and/or qualitative data from the third wave of the international comparative study conducted by the EU Kids Online research network in European countries (in 2025). These data cover various aspects, including technology use in a mediatized and datafied society, opportunities and risks of the digital world, skills, knowledge, and attitudes, the social mediation of internet use, and the mental well-being of children and youth. Some of the newly collected data can be compared with findings from previous waves of the study (from 2010 and 2018).

Potential supervisors: Professor Veronika Kalmus, Professor Andra Siibak, Dr Signe Opermann

"Social Media Use Among Children and Youth: Policies and Mental Well-being"
(media and communication, sociology)

The topic is directly linked to the new international CHANSE initiative project PROMISE (*"Promoting Well-being in Preteens, Adolescents, and Young Adults: Toward Improved Social Media Policies"*, 2025–2027), which explores the relationship between young people's social media use and mental well-being in social, cultural, and policy-making contexts. The main research methods include literature analysis and focus group interviews with young people (aged 10–25) in five European countries (Estonia, Austria, Germany, Spain, and the United Kingdom). The interviews will focus on young people's experiences, expectations, and challenges related to social media use.

Potential supervisors: Professor Veronika Kalmus, Dr Signe Opermann

"Parents' socialization values in the mediatising society"
(media and communication, sociology)

The topic is related to the Estonian Research Council project "How do changes in the digital and language environment at home during COVID-19 lockdown affect child development and wellbeing?" (2023-2027) and allows studying relations between children's usage of screen media and its parental mediation on the one hand, and parents' socialization values and attitudes, on the other (based on questionnaire data).

Potential supervisors: Professor Veronika Kalmus, Professor Tiia Tulviste

Risk and disaster communication. National security & communication (incl. strategic narratives, disinformation). Government communication (media and communication)

Applicants are invited to propose novel research problems falling within these areas and discuss these with the potential supervisor.

Supervisor: Associate Professor Sten Hansson

Meta-analysis of studies on a certain subject (sociology)
The subject will be selected jointly by the supervisor and the candidate.

Supervisor: Dr Tarmo Strenze

"Functioning of children's close relationships in extraordinary times from the perspective of children" (sociology)
Children live their "ordinary lives in extraordinary times" (Millei, Silova & Gannon 2022) characterized by recent abrupt social change (e.g., the Covid-19 pandemic and Russian war in Ukraine), having impacts also in their close environments (e.g., family). Growth in children's mental health problems and a decrease in subjective wellbeing have been noted. As the main sources of a child's well-being lie in their close relationships (e.g., Nahkur & Kutsar 2019; Lee & Yoo, 2015), it is important to examine the functioning of these relationships in these extraordinary times, especially from the perspective of children and using child subjective family network approach (Widmer 1999).

Potential supervisors: Dr Oliver Nahkur, Associate Professor Dagmar Kutsar

Development of social innovation in mental health, focused on social and personal recovery, and development and implementation of experiential knowledge based on lived/living experience of mental health, both in the mental health sector and in communities (sociology)

Supervisor: dr Dagmar Narusson

Analysing prefigurative practices and transformative social innovation processes and interactions in communities and social movements, enabling new action, knowledge, relationships and organisation (sociology)

Supervisor: dr Dagmar Narusson

PhD topics of the Deep Transitions research team (sociology)

The two topics are connected to a forthcoming ERC Consolidator project "Rise and Demise of Industrial Modernity" (RiDe). The project is based on the Deep Transitions framework which theorizes industrialization as a long-term co-evolution of various socio-technical systems (see here). In particular, the topics focus on industrial modernity: ideas, institutions and practices related to the natural environment, science and technology that characterize all industrial societies (more information here).

Topic.7*:* **"Ideational.continuities.and.ruptures.of.industrial.modernity.in.G86.countries"**

The purpose of the PhD project is to identify evolutionary patterns in the ideational dimension of industrial modernity (e.g. increase in environmental awareness, connecting the notion of progress to science and technology in public discourse) in G20 countries through the application of Large Language Models to digitalized newspaper corpora. The results are expected to contribute to 1) a typology of industrialization pathways developed by the research team; 2) an index comparing the historical legacy of industrial modernity in different countries. The project assumes command of text mining techniques and associated technical skills (e.g. programming, statistics, API-s), ideally including LLM-s. At minimum, readiness to acquire

additional LLM-related skills during the first year of the PhD study is expected from the candidate.

Supervisors: Professor Laur Kanger, Andres Karjus

Topic.8¿"Blocking.mechanisms.of.industrial.modernity"

The purpose of the PhD project is to 1) use existing theoretical and historical literature for the identification of mechanisms (e.g. promises about the future availability of technologies, tendency to fix the problems created by existing technologies through the introduction of new ones) by which the currently dominant technoscience related ideas, institution and practices hinder the take-up of transformative environmental practices (e.g. circular economy, energy sufficiency); 2) analyse the interaction and combined impact of these mechanisms in three different cases (e.g. solar geoengineering). The study will be part of the team's broader effort to identify various factors currently blocking the deep sustainability turn. The project assumes working with different data sources (e.g. scientific publications, news media, policy documents) and using different qualitative methods (e.g. expert interviews, process tracing, case studies).

Supervisors: Professor Laur Kanger, Phil Johnstone

Additional.topics

Topic.9¿"Transformative.niche.clusters.for.reshaping.industrial.modernity"

The purpose of the PhD project is to 1) identify a set of niche solutions from existing literature that challenge currently dominant assumptions about nature-society relationship or technoscience (e.g. provision of legal rights to the environment, responsible research and innovation); 2) connect these niches in a manner that offers a novel solution to specific sustainability-related challenges. That is, the work would seek to create a set of "transformative niche clusters" that could be possibly implemented over the next 5-10 years while acting as potential building blocks for a deeper sustainability turn. The PhD project is complementary to an ongoing large team grant "The Crisis and Transformation of Industrial Modernity, 1900-2055", particularly its research activities related to the creation of future scenarios for Estonia (read more here). The project assumes in-depth work with literature on sustainability interventions, constant interactions with experts from different domains as well as the combination of methods from transition design and futures studies.

Supervisors: Professor Laur Kanger + an additional member of the Deep Transitions research team.

There are also several research topics adjacent to the main foci of the abovementioned projects. Contact Professor Laur Kanger if you are interested in one of the following topics:

- Socio-technical/sustainability transitions in energy, mobility, food, communication, healthcare, housing, defence and other systems
- 40-60 year long waves/great surges of development encompassing multiple systems, e.g. electrification, mass production/consumption, digitalization, circular economy
- Theorizing: what is the meaning of theory, what kind of techniques are used by researchers to theorize, and how to develop theorizing skills?

PhD topics by Risk and Resilience research group (sociology)

"Anticipatory innovation in disaster risk reduction"
This research project explores foresight techniques and data science methodologies to anticipate and prepare for emerging risks stemming from the complex nature of modern disasters. The project focuses on the experiences of using foresight techniques in predicting societal vulnerabilities to guide adaptive, preventive, or preparedness actions across Europe. It applies foresight techniques to predict emerging hazard scenarios and factors of vulnerability. The project explores the possibilities of predicting disaster vulnerabilities based on emerging hazard scenarios and applying merged state databases to model vulnerabilities.

Potential supervisors: Professor Kati Orru, Associate Professor Mihkel Solvak, Associate Professor Sten Hansson

"Communication-related factors of vulnerability and their mitigation in crisis management"
Recent major crises such as the COVID-19 pandemic, the 2021 floods that ravaged Europe, and the refugee crisis spurred by the Russian war aggression in Ukraine, have triggered the need to carefully consider the communication-related mechanisms of vulnerability in crises (Hansson et al., 2020). This research project focuses on the individual, social-structural, and situational factors that have impeded access, understanding or response to information in various emerging crises. Furthermore, the project explores how the crisis management authorities have reconsidered or revised their strategies and practices in order to improve accessibility to risk and crisis information, understandability of the provided information (including helping to recognise false information), or strategies to overcome the barriers to acting adequately upon information about hazards, e.g. by building trust in official information sources.

Potential supervisors: Associate Professor Sten Hansson, Professor Kati Orru

"Inclusion gap in disaster risk reduction and strategies for filling the gap"
For effective disaster risk reduction, collaborative partnerships between the communities and authorities need to be established already when identifying the sources of vulnerability and defining its mitigation strategies (United Nations, 2015). Overview of the practices of engaging members of community in crisis response in Europe highlights how the rules and resources, including capacities to connect with these enthusiastic helpers, as well as training facilitate their meaningful mobilising (Nahkur et al., 2022). However, recent crises demonstrate the societal polarisation in terms of willingness to contribute to crisis resolution and resignation from joint efforts to better anticipate, mitigate risks or respond to crises. This project will explore the lessons learned from past crises in terms of including individuals in crisis response. Furthermore, it maps the techniques (and guidelines) used by formal actors and community leaders in engaging and empowering citizens and their communities to collaborate and to act by themselves in preparation for or during disasters.

Potential supervisors: Professor Kati Orru, Associate Professor Oliver Nahkur

"Approaches to handling social vulnerabilities to crises: the role of social care"

In the escalated crisis the number of people affected can be significant and their well-being, health status, and daily coping are greatly disturbed. In such situations, it is expected that

social protection authorities ensure the availability of regular services, but also provide support to those people that have fallen into the vulnerable situation during crises (Orru et al., 2022). In practice, care workers are acting as consultants to rescue and recovery agencies, yet their skills and expertise in their client's needs and life circumstances could make them effective partners in risk mitigation, preparedness, response as well as recovery phases of disaster management (Hay & Pascoe, 2021). The role of social protection in mitigating risks, in building preparedness or in response and recovery is often unclear. This project focuses on the legal basis as well as the practical organisation of social protection in terms of identifying potentially vulnerable individuals, and building their preparedness as well as response capacities.

Potential supervisors: Associate Professor Kati Orru, dr Marco Krüger (University of Tübingen)

References

Hansson, S., Orru, K., Siibak, A., Bäck, A., Krüger, M., Gabel, F., & Morsut, C. (2020). Communication-related vulnerability to disasters: A heuristic framework. *International Journal of Disaster Risk Reduction*, *51*, 101931. https://doi.org/10.1016/j.ijdrr.2020.101931

Hay, K., & Pascoe, K. M. (2021). Social Workers and Disaster Management: An Aotearoa New Zealand Perspective. *The British Journal of Social Work*, *51*(5), 1531–1550. https://doi.org/10.1093/bjsw/bcab127

Nahkur, O., Orru, K., Hansson, S., Jukarainen, P., Myllylä, M., Krüger, M., Max, M., Savadori, L., Nævestad, T.-O., Frislid Meyer, S., Schieffelers, A., Olson, A., Lovasz, G., & Rhinard, M. (2022). The engagement of informal volunteers in disaster management in Europe. *International Journal of Disaster Risk Reduction*, *83*, 103413. https://doi.org/10.1016/j.ijdrr.2022.103413

Orru, K., Hansson, S., Gabel, F., Tammpuu, P., Krüger, M., Savadori, L., Meyer, S. F., Torpan, S., Jukarainen, P., Schieffelers, A., Lovasz, G., & Rhinard, M. (2022). Approaches to 'vulnerability' in eight European disaster management systems. *Disasters*, *46*(3), 742–767. https://doi.org/10.1111/disa.12481

United Nations. (2015). *Sendai Framework for Disaster Risk Reduction 2015—2030*. United Nations.