Aurora:

A Network for Trust

Preface

work for Design for Government (DfG), an intensive 12-week studio course at Aalto University. In collaboration with the Finnish Government, DfG provides students with the opportunity to dig deep into issues of importance to Finnish society. This year we had the opportunity to partner with the Ministry of Finance to investigate AuroraAl, a programme to construct a framework for using artificial intelligence (AI) in the delivery of government services.

Our brief, "Empowering Citizens Through Artificial Intelligence," broadly invited us to consider how services could be organized around life events to produce increased citizen wellbeing, and possible applications of AI to achieve this goal. Our team took a systems approach to this invitation, and our research led us upstream of the original brief to consider how we might reframe the basic assumptions of wellbeing and individual autonomy underpinning the AuroraAl programme.

This report is the culmination of our team's Our research, and resulting proposal, affirms the basic purpose of government — to do things together we can't do by ourselves - and provides a conceptual blueprint for centering social values in the adoption of new technologies and new economic structures enabled by AI.

> AuroraAl is not only a government programme; it is a large network of experts across many fields engaged in a sustained conversation about the future of digital services and their impacts on society. We are deeply grateful to the AuroraAl community for access to their ideas and consideration of ours, and to our teachers for supporting our exploration through this course.

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Executive Summary

We're entering a new economic era that ex- technologies. Despite the rhetoric from ecorely on AI to make sense of huge data sets. changes.

personalization, and new, more useful prod- we bring people's collective power and will ucts. Businesses hope that these services into the authorship of a new Al-enabled serwill increase operational efficiency and vice ecosystem?" open new markets for financial growth. Governments, in turn, hope that economic We propose that throughout the develophave yet to actually experience what this mental institutions. proposed future economy will be like.

by AI will result in increased wellbeing for tion is focused on maintaining the high level their citizens. But while there is much ex- of trust that Finnish Citizens and other peoperimentation and research happening, we ple around the world have in Finnish govern-

While there is much momentum, and funding, driving us toward this future, it's important to remember that people have agency in the decision to participate in new

perts in the EU and in Finland think will be nomic analysts and techno-optimists, the brought about through a widespread use of changes on the horizon are not inevitable artificial intelligence, (Al), in concert with or even necessarily the most desirable ways other digital technologies. Throughout the to shape our society. We must collectively world, governments and businesses are dedecide which human values and qualities of veloping sets of interconnected online ser- Finnish society we center in this developvices - known as service ecosystems - that ment, even if we decide to embrace these

These services promise users convenience, It is in this context that we asked, "How can

growth and easier service delivery enabled ment of this new service ecosystem, atten-

We think the AuroraAl programme can lead Our concept is Aurora: A Network for Trust, Finland through these changes in an un- an Al-enabled service ecosystem with a dyprecedented way if the next phase of de- namically co-created Declaration of Trust at velopment can shift its paradigm from Hu- its organizing set of principles. man-Centered to Human-Driven, designing the AuroraAl network for people, to design it with people, and infusing the will of the people into every element of a new, Al-enabled Finnish service ecosystem.



Human Perspective



interactions between both stakeholders and well-being. students.

Our project kicked off with a careful study of of the project brief while giving space to the brief and a workshop with our project's express respective agenda and vision, but key stakeholders. We planned the workshop also perceived challenges and concerns. in collaboration with our fellow AI student Our conversation ranged across basic defiteam. Our aims were to obtain insights nitions and aims within AuroraAl, societal from the attendees to let us further explore, bias towards artificial intelligence, collaboframe and scope the project and the possi- ration between involved private and public bilities for AuroraAI, and foster meaningful parties, and concepts of multidimensional

Our stakeholders included Niko Ruostet- The topics discussed gave us a joint presaari, Coordinator for Public Sector ICT, and liminary framework to launch the individual Aleksi Kopponen, Special Advisor for Pub- project development within our two groups. lic Sector ICT, both from the Ministry of Filand Design at Migri.

the participants, both stakeholders and stu- from the third sector. dents, towards a common understanding

nance; Tomi Kytölä, Senior Officer, Minis- We formed an initial set of research questry of Education and Culture; Vesa Silfver, tions based on threads from the workshop, Public Sector and Healthcare Management weaving expert interviews with desktop re-Consulting Lead, Accenture, and Susanne search on the current state of the AuroraAl Miessner, Design and Prototyping Lead, In- programme and its development community. Experts from the AuroraAl community we interviewed included designers and ser-The backbone of our explorative workshop vice providers from the public sector, Al ethwas the co-development board game ATLAS. ics experts and ecosystem architects from This playful approach helped us in guiding the private sector, and data privacy experts



Creating an inclusive and open atmosphere was essential for a successful workshop.

As we gained deeper insight into the programme from the current development community, we realized there were voices missing from the AuroraAl conversation. Ultimately, it is the people in society that are going to be the ones using services developed within the AuroraAl project yet this perspective had remained largely unexplored in Aurora's development to date.

To bring this perspective into our project, and to unpack the varied mental models people have about data privacy, AI, and personal control of data, we conducted a modified "think-aloud" user test with nine people (four from Finland, five from around the world.) Using suomi.fi, an online platform maintained by the Population Register Center that allows users to explore their personal data stored across different governmental agencies and municipalities, we asked participants to look at their data as it is stored by the Finnish government and speak aloud all of their thoughts and feelings during this exploration.

Then we asked them to imagine what other kinds of data the government might collect, and possible Al-enabled services that might use this data. Responses like "there's a line between ok and creepy" and "I want predictable patterns of behavior" show the complexity of how Al might enter into people's relationships with the Finnish government.

Through the stakeholder workshop, interviews, and think-aloud exercise, our research raised many questions through themes ranging from widely-varying mental models of data privacy and ethics, value creation in the emerging AI era, and civic participation and responsibility in a system requiring increasing levels of data literacy.

- 1) How can we bring to life a vision of Aurora AI as a platform for collaboration and citizen empowerment?
- 2) How can we center people in an AI-enabled data economy?
- **3)** If we imagine that social cohesion is part of wellbeing in a digitalized society, what kinds of relationships or resources will people need to participate effectively?
- **4)** And who might be missing from the current Aurora AI development community to make this vision real?

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There's a line between ok and creepy.

It's convenient
that they have this
information so I don't
have to keep entering
it all the time.

I'm not nervous about sharing my data, but that might change when I get older and have kids.

I want predictable patterns of behavior from the government.









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System Perspective

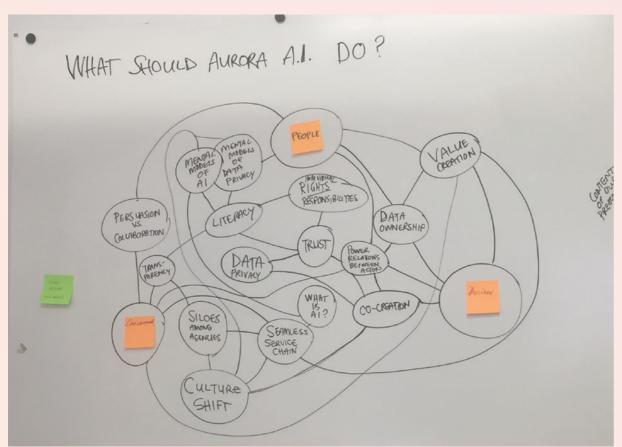
Digital and Social

We're on the brink of new digital era, in This is the basis of our brief from the Minwhich everyone from small retailers to en- istry of Finance, "Empowering Citizens tire governments are using artificial intel- through Artificial Intelligence." ligence (algorithms and machine learning) and increasing volumes of data to provide Under the banner of Aurora AI, a network of create new value.

The Finnish government has responded to tificial intelligence. these emerging trends by launching programmes with the aim of turning Finland Our team's project aimed to understand the cial Intelligence report (Ministry of Econom- wellbeing of people who participate in it. ic Affairs and Employment, 2017). Led by the Ministry of Finance, the Aurora Al programme is guided by the concept of a Public-Private-People partnership in creating a plan for implementation of an Al-enabled service ecosystem with the aim to provide increased wellbeing for the population of Finland.

better services for their customers and con- cross-sectoral actors came together to restituents. These services are part of what is search and pilot the use of artificial intelcalled a data economy - a digital ecosys- ligence. Preliminary studies were conducttem in which data is gathered, organized ed from September 2018 to February 2019, and exchanged by a network of vendors to and subjects covered ranged from life-event based service chains to technological solutions and the ethics related to the use of ar-

into a leading country in the application of digital and social environments that Aurora artificial intelligence. Aurora Al is one of Al is going to work in, and imagine how an the follow-ups of the Finland's Age of Artifi- Al-enabled data economy might support the



Fundamental topics related to AuroraAl

To begin, we opened up the brief by researching the Aurora Al project as a whole, and summarizing our stakeholders' goals for Aurora Al:

- **1.** To provide a life-event-triggered seamless service-chain that enables people to exert more control over their own data:
- 2. To create a regulatory structure for an emerging data economy, allowing new business opportunities while protecting individuals' data ownership and privacy;
- **3.** To catalyze a culture-shift in the public service sector and civil society towards trust and engagement in artificial intelligence.

We used an affinity board to structure and track our different research streams into tightly connected topics. The field of artificial intelligence – especially while being applied on a societal level for service-provision – is vast, complex and shifting. Sorting topics, finding interrelations and prioritising them, was one of the most difficult tasks within the whole project. This visual representation helped us keep track of where we were, what we knew and what we still wanted to explore.

Research Streams

With such a broad brief and a rapidly expanding subject area we needed a plan to manage the immense scope of the project. We loosely organized our research into streams: Data Literacy, Ethics and Trust, What is AI, Value Creation and Participation.

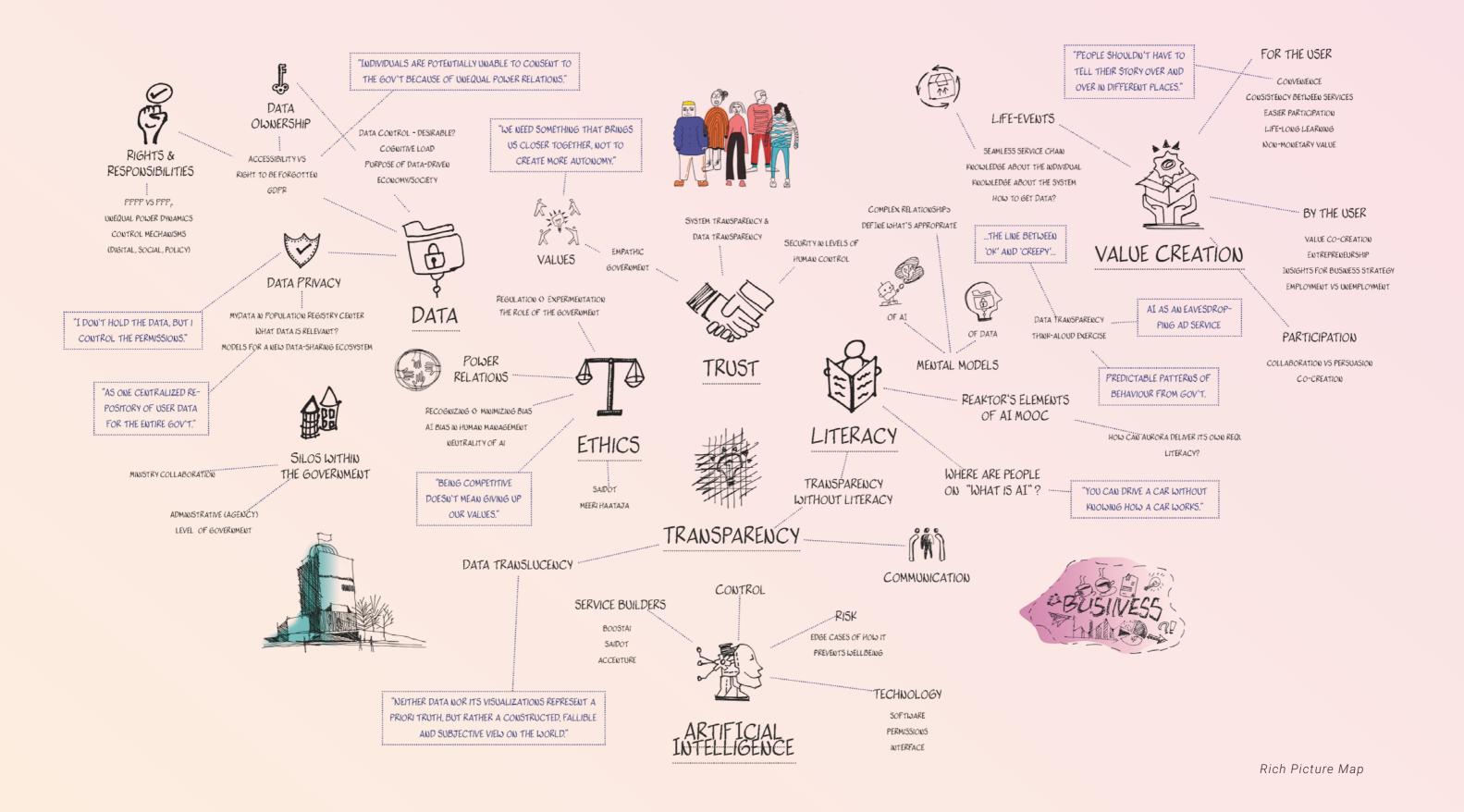
A more condensed version was then developed in the form of a rich picture map. Our rich picture map is an attempt at crystallizing the topics of interest, enriching them with tangible research input from both the expert field and research done on the human perspective, with hopes of broadening the discussion to include more social aspects alongside technological considerations.

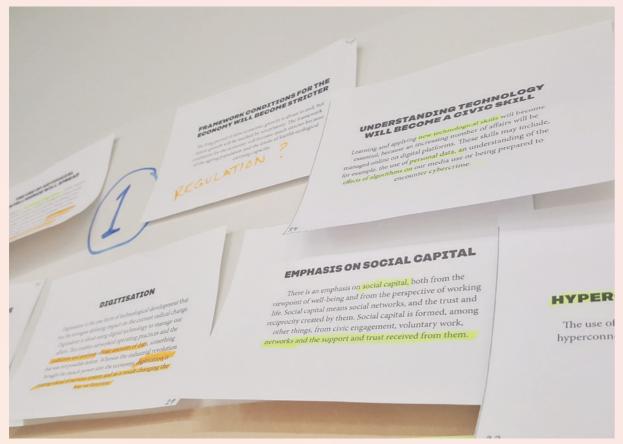
Through our research we discovered that the foundations for Aurora Al's technical architecture and organizational arrangement, while yet to be actualized, lay on strong expertise and partially pre-existing relations. Nonetheless, through desktop research and interviews conducted with experts in the field of data sciences, we did find areas where that had been as of yet left with less attention as what came to practicalities.

For example, we found that Aurora Al's development could benefit of more attention being paid to users' perspectives. New EU data privacy laws provide individuals extensive rights regarding their own data, but there is a gap in how people understand these rights, as recent research by Sitra's IHAN project shows. Unless thoughtfully implemented, the use of artificial intelligence can potentially widen this gap by making how services work even less transparent to users. Controlling your own data also means being responsible for your own data but what exactly will be entailed by that responsibility - including its implications for people's daily lives - will depend on the regulations and system infrastructure being built right now.

These new ways of thinking about personal data are fuzzy and emerging, both for the general public and also for the experts working on Al-enabled services. We see this as a potential risk to Aurora Al, but it also presents an interesting set of challenges for our project to address.

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SITRA Megatrend Cards related to our project

The Finnish government is not alone in its goal of providing Al-enabled services, and there are many other projects in the EU and abroad to learn from. All of these projects are asking how Al can increase value creation, but only a few such as DECODE are asking how data and Al projects can increase citizen (human) wellbeing.

Central to this goal is understanding what futures people want to be brought forth through an Al-enabled data economy. Unsurprisingly, many topics and issues discovered during our research can be found elsewhere and are tied to wider, systemic changes and developments.

SITRA developed a set of cards that is meant to help exploring mega trends in contemporary society. We used this set of cards as a tool to identify, which areas of our own research match up against those trends, and what we were still missing or did not take into account thoroughly.

Turn Towards Trust

Through our research, trust emerged as a central component to achieving wellbeing on a societal scale. (Fukuyama, 1995)

We learned that Trust between the Finnish people and their government, and among individuals and organizations, is an essential material of Finnish society, that makes both private commerce and public development possible. In documenting how trust affects social cohesion, sociologist Christian Larsen argues that trust enhances economic exchange, improves the efficiency of public institutions and provides the ground for collective action. (Larsen, 2013)

Research shows that Finns have a high level of both institutional and interpersonal trust. But that trust is threatened when people lose traditional ways of relating to their government, a potential outcome of more services and interactions moving online and away from personal contact. Institutional trust is so important to economic wellbeing that a recent EU study recommends (Algan et al., 2017; p 46) that national governments and the EU should focus not only

on structural reforms, but also on protecting trust of their citizens from economic insecurity.

In terms of how trust translates into the function of a societal-scale digital network, we can look at trust through the work of social researchers for the OECD, who define trust as "the expectancy that other persons' behavior is predictable and is in principle lead by positive intentions." (Schiefer and van der Noll, 2017; p 586)

In order to maintain and build trustful relationships through technological advances, transparency in Finnish government and economic systems is required. Transparency in this context translates to open access to understanding how things in the system work. In addition to transparency, also literacy — or the ability to make sense of transparency — is required by people and organizations in order to make decisions about how to participate in a system. Literacy creates equal opportunity among all participants to influence and innovate.

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Intervention Perspective

Having explored the human perspective The following pages sum up the most prevagainst the systemic context of bringing alent insights and describe our path toward government service structures into the age the final proposal. of artificial intelligence, some reoccurring themes started to emerge (cf. Rich Picture Map). The most prevalent insights related to our project revolved around mental models around data, people's personal boundaries, and the ethics related to services built around artificial intelligence. Coming as outsiders to the Aurora development network, our team paid close attention also to the ways in which the wide-spread Aurora Al development network had come into being, and its fuzzy edges.

Project Insights

- 1. People's mental models about data related rights and responsibilities, how it is produced, used and stored, its opportunities and challenges, its monetary and non-monetary value - vary widely.
- 2. People create personal boundaries toward data sharing based on many mental models, including more than only mental models of data, AI, or government. Trust toward service providers is a factor, but so is personal risk assessment and other individual needs and motivations.
- systems work creates a **power imbalance** between the general public and companies, government agencies and other service providers who use their data.
- **4.** The context in which Aurora is being developed - political power changes, legislative and regulatory, technological development - is a rapidly shifting ground that makes human-centered solutions difficult to determine.

- 5. Different ministries' agendas lead to parallel development of similar projects, while funding structures as well as political and organisational culture hinder cross-ministry collaboration.
- 6. Aurora Al's current emphasis on individual wellbeing limits holistic representation of people as actors situated in complex social contexts, creating a restricted projection of social realities.
- 3. Asymmetric knowledge of how data eco- 7. Private, public and individual participants do not share a common idea of what AuroraAl currently is or could be in the future. Aurora Al is not a technology, but a development project fueled by a techno-centric agenda.
 - 8. Data is by nature subjective, because its collection, processing and presentation is always mediated by human decision-making.

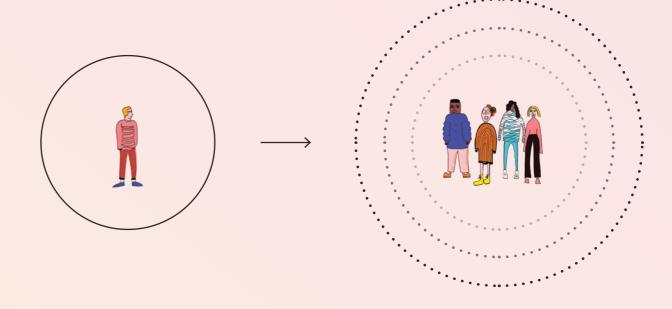
Against this backdrop, we ask:

"What can the Finnish government do to manage these changes that individual people can't do by themselves?"

We think Aurora AI is poised to lead on the answer: protect and grow Finland's most important civic resource - trust. Trust between the Finnish people and their

government, and among individuals and organizations, is the essential material of Finnish society.

AuroraAl can lead Finland through these transformations in an unprecedented way if the project can shift the paradigm of development from Human-Centred to Human-Driven.



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Dian & Molly working on a new vision for Aurora

To guide our design process we devised **design drivers** to remind us of our end goal.

- 1. Increase the wellbeing of citizens
- 2. Grow with new business innovations
- 3. Provide transparency for all actors in the system
- **4.** Increase trustful relationships between citizens and government
- **5.** Strengthen social bonds between citizens
- **6.** Improve efficiency of government services
- **7.** Preserve and advance the awareness of the subjectivity of data

Based on these premises as a result of our research, we started outlining a manifesto of principles that AuroraAI should be built on. This manifesto is meant to be the unifying vision that brings together the private- and public service providers within the Finnish data ecosystem.

It thereby has to be informed by the people, which led us to pondering on the idea of a co-created Declaration of Trust at the heart. Even though we see it as essential to give people a voice, mechanisms are required that make sure this voice is heard.

A Vision: The Declaration of Trust

In response to our key insights and design drivers, we started to envision a **Declaration of Trust** that would serve as the foundation of the continuous, responsive development of technology and service regulations.

A new governmental entity, the People's Authority of Trust, led by a council of experts from fields such as data privacy, AI, human-centred design, sociology, philosophy and ethics. The councillors are responsible for the participatory framework for the Declaration of Trust, and translate its principles into concrete policies and best-practices for the Finnish Data Ecosystem.

This new authority will hold the technological means to monitor the Finnish data ecosystem and its services, alongside human agents to oversee those means.

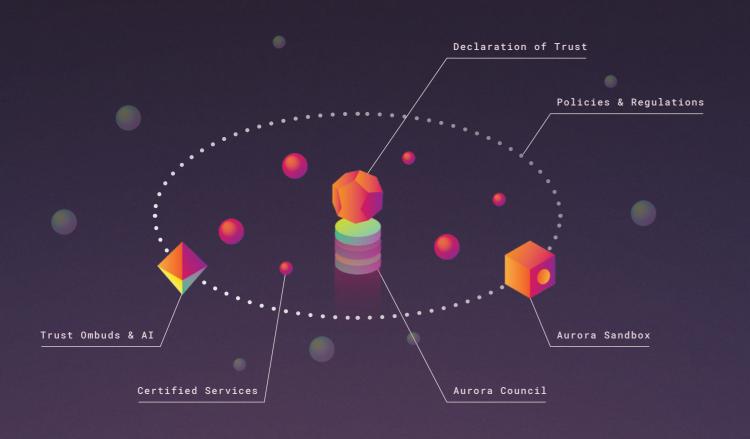
AuroraAl will become the gateway for new services to enter the Finnish data ecosystem. As an incubator for new Al-enabled services, it will push forward the development of human-driven services within a network of private- and public institutions.

Providing a sandbox environment, AuroraAl facilitates a barrier-free and fast process to validate a new service or product to be in harmony with the Declaration of Trust. Trainings and workshops on e.g. human-centred design, as well as the importance of ethics in Al, or data privacy, accompany the development process.

Once they successfully pass through this sandbox phase, a service provider can launch into the wider public of the data ecosystem.

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Proposal Perspective



Aurora: A Network for Trust

ra: A human-driven network of people and gy, and ethics. The councillors are drawn technology' that shapes and governs the from the informal Aurora Development Net-Finnish Service Ecosystem to safeguard the work, and are responsible for the open-acvalues that maintain trustful relationships cess framework that keeps the Declaration within the Finnish society.

The foundation of such an ecosystem should tion of Trust's principles into concrete polibe a set of core principles, what we are call- cies and regulations for the Aurora service ing the Declaration of Trust. It is a living ecosystem. This means, the evolving legal document that states the ethical framework framework for Al-powered services, will be through which trust is created and protect- based on what we see as the manifestation ed in the Finnish Data Ecosystem. The Dec- of the people's will in the systemic context laration is collaboratively drafted by a coun- of Aurora. Which in return will ensure the cil of experts, the wider Aurora development human-driven quality of the overall network. community, and the public. It lives on an interactive digital platform that facilitates The Aurora Sandbox will serve as a collabparticipation and helps it adapt to changing orative development network, ensuring that needs in the data ecosystem and values in new services are in line with the Declaration Finnish society. The Declaration serves as of Trust and its regulatory implications. It the locus of an ongoing public discussion to provides a risk-free environment to experidefine values, rights and responsibilities in ment with the integration of a new service the Finnish Data Ecosystem.

by the Aurora Council, a quasi-governmen- vices and interoperability to further ensure tal steering group of experts from fields people-oriented service provision.

We propose to reframe AuroraAl into 'Auro- such as data privacy, Al, design, socioloof Trust evolving and relevant. The council is responsible for interpreting the Declara-

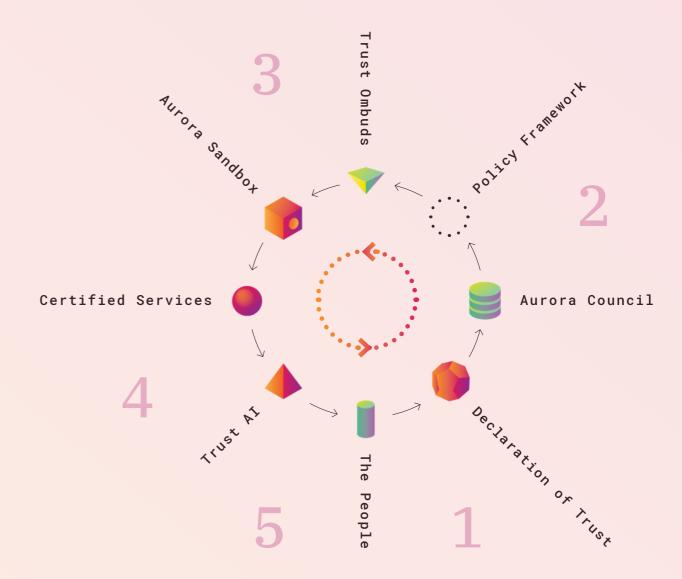
into the wider Aurora context. Similar to an incubator hub, the sandbox will also offer The Declaration of Trust is administered workshops on ethics, human-driven serGoing through this collaborative development network, will provide the required certification for a new service to operate within Aurora.

The final aspect of our proposal is a human-technology integrated mechanism for reporting and monitoring. Trust AI serves as the technological backbone of the service ecosystem and scans the operating services to ensure the compliance against the Declaration of Trust. In case patterns of e.g. algorithmic bias are identified, human intervention is triggered via a flagging system. Human Trust Ombuds each keep a portfolio of flags, that assigns them to the respective services and their providers. In case of any reported issues through TrustAI, the ombuds work with the service providers to correct faults in their service algorithms and clear the flags to allow further operation. This will make sure that there is constant "Human on the Loop" monitoring on the services provided within the network. Given that Trust AI functions as the service backbone, it will hold the public-facing mechanism that people interacting with the

service network could call on, if they experience something that shakes their trust. This ensures the feedback loops are going in multiple directions through the system.

With this conceptual vision, we aim to inspire a circular, self-supportive structure for a human-driven Finnish service ecosystem. This is how we envision the living document to function in practice, feeding the mandate of the people into the service ecosystem and, thus, enabling a self-correcting feedback loop:

- **1.** The co-creative liveliness of the Declaration of Trust ensures constant societal participation.
- **2.** Expertise in the Aurora Council guarantees that this participation translates into functional, yet human-driven policies to regulate services.
- **3.** A collaborative development network transports and certifies the underlying qualities of Finnish society to the service provider level.
- **4.** Tech/Human-monitored service provision facilitates policy compliance and allows human on the loop controlling for higher trust.
- **5.** People's experience of the final service delivery will trigger further participation in the Declaration of Trust.
- 6. Repeat



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Discussion

Development Plan

While the outlook for the AuroraAl project stands on unsettled ground, a significant amount of work has gone into preparing a vision of an Al-powered service ecosystem. Concepts such as human-centered design and the principles of digitalisation have been drafted as the pillars of the envisioned ecosystem. Pilot projects have been conducted within the network of developers, while commissions of experts and academics have been investigating the prerequisites of high-functioning Al-powered service ecosystems.

The development and implementation plan drafted by the Ministry of Finance (2019) discusses the implementation requirements for the ethics and legality of AuroraAI. The plan sets out a number of actions to take in the next development phase of AuroraAI, such as creating regulatory sandbox environments to investigate the secondary use of personal data, and assigning existing actors responsibilities relating to developing core service architecture.

Informed by the results of the pilots, preliminary studies and additional research, we view the core ideas of our vision of 'Aurora: A Network of Trust' as essentially compatible with the direction set out by the Ministry's plan. The development and implementation plan sets out a framework for the legal and ethical aspects of the development of AuroraAl, and we believe that there are ways in which existing, or yet to be founded institutions, can use the findings of this study and intervention proposal. In essence, we are proposing incorporating such design and organization practices into the development process that not only ensure the legality and ethicality of AuroraAl, but also shape AuroraAl into a system that functions to uphold the continuous inclusion of people (citizens and residents, etc.) in the development of services designed for them, irrespective of the level of Al literacy that people might hold.

Further Suggestions

In this section we provide some suggestions on how our proposal might be carried into action.

The development plan for AuroraAl calls for an ethical code for the Aurora Network. We suggest that The Declaration of Trust take on this role, and that the concept be expanded to include How it is created and How it functions as a living, responsive set of principles.

The AuroraAl development plan calls for a Support Team to help public and private organizations adopt service structures that match the requirements for the age of Al. To support the development shift to center around trust, we recommend recasting a portion of this team as Trust Ombuds and giving them autonomous authority within the network.

To implement the Human-driven quality of the Declaration, the first thing Aurora should build is a data management platform through which people can participate in defining and understanding the Declaration.

Our proposal focuses on developing and implementing ethical design practices, such as the Declaration, to help Finland lead the EU into the future of trustworthy AI.

To demonstrate the viability of AuroraAl as a development environment and gatekeeper to a trust-building network of data service providers, one of the first official outputs should be a data management platform. The platform will function as the interface between the Finnish data ecosystem and its users. From here, people will be able to participate in the formulation of the principles of ethical use of artificial intelligence - i.e. the Declaration of Trust - as well as control their individual data for existing and new services. As an interactive platform, it will serve as a channel for education and feedback on the implications of open data and AI to create greater data literacy within Finnish society. And it will serve as the digital dashboard for the seamless service chain that will come about through a human-driven paradigm shift.

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The role of the central holders for the Network of Trust would naturally fall on the Population Register Centre and the Ministry of Finance. The Digital and Population Data Services Agency, scheduled for launch in 2020, seems like a feasible owner for the core functions of the Network of Trust, and could include a branch taking on the role of the People's Authority of Trust.

In reference to existing actors, however, we envision that the Population Register Centre would provide the home for the Aurora Council and the Trust Ombuds, while the Ministry of Finance would oversee the funding of trials within the Sandbox. As a new entity, the Aurora Council will form a collaborative body between government agencies, businesses, and the third sector, such as universities and AI think tanks. In general, maintaining collaboration with businesses, organizations and networks, such as MyData and Open Knowledge Finland, will be vital in order to reap the benefits of existing expertise in the field of ethical data management.

Furthermore, we envision Trust Als being provided by private contractors, such as Saidot.ai and other companies with similar expertise, working as vendors for the Population Register Centre. We imagine that having multiple Trust Als from multiple vendors will provide a useful arrangement for cross-checking for biases unconsciously encoded in the algorithms. The Trust Als might also function together to create a generative adversarial network (GAN) learning effect, helping the Trust Als keep on top of novel instances of trust assessment without needing a huge dataset of problems before flags are raised.

Lastly, the European Commission published a framework for promoting trustworthy Al in April 2019. Authored by an independent High-Level Expert Group on Artificial Intelligence (AI HLEG), the document suggests ethics guidelines for achieving trustworthy Al. The AI HLEG suggests that trustworthy Al consists of three components (2019, p. 2): lawfulness, ethicalness, and robustness both from technical and social perspectives. We suggest 'Aurora: A Network for

Trust' function as the vehicle for grounding all three of these components firmly into the foundations of the Aurora AI development network with added focus on improving Al literacy among the public, and increasing the role of participation, ensuring that participation continues to be designed not only into the monitoring of the Aurora network but also into an authoring role in creating policies. In accordance with the report of the Ministry of Economic Affairs and Employment (2017), we believe Finland should lead the development of artificial intelligence harnessing its national strengths - high-tech expertise, and the high levels of institutional and interpersonal trust the Finnish society has evoked in its people.

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Conclusion

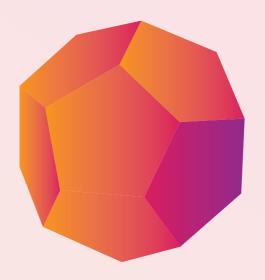
are well-documented and have grave consequences. We want the AuroraAl programme to succeed in delivering increased wellbeing to the people of Finland, and we think a governmental focus on trust will ensure that a widespread adoption of Al-enabled services will bring Finnish society into a future that's desireable to all.

By creating a development process where trustworthy interactions are centered, we believe Aurora will succeed in delivering increased wellbeing to the people of Finland.

Technology has throughout centuries served to propel national economies into growth, yet disparities have historically prevailed. With each successive technological advance, gaps have widened between those benefiting from new sources of privilege and wealth, and those left dealing with the unintended negative consequences of social alienation and environmental degradation.

The ways that public trust can be broken Finland is a world leader in social equality and institutional trust, and should strive to have its service structures reflect these foundations of Finnish society even as it embraces new technologies to do so.

> As Finland seeks to be a leader in bringing government into the age of artificial intelligence, it should lead with the strengths that it is known by around the world: high levels of trust in governmental institutions, and excellence in safeguarding social equality. We believe that a governmental focus on trust is the most effective means to empower people to meet the challenges of digitalization and massive change, - and set the stage for trustworthy AI in Finland and around the world.





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Appendix

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Appendix

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