Tallinn, Estonia.

Urban Citizenship in a Digital Society

Applicants:
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Proposal

Motivation

Chu Jincong (2020) and Sambhav Bhandari (2020) propose a 12-day travel trip to Tallinn, Estonia and Helsinki, Finland from late-July to mid-August that offers a unique opportunity to experience a prototype of future digital society, to contemplate about political engagement of citizens in such a future, and to introspect about our identity as active citizens in the age of technology. We wish to do this through travelling to and experiencing life in Estonia, where we will look at e-Estonia, Estonia's digital society initiative. We plan to contextualise and contrast Estonia's rapid catapult into new-age technology with its like-minded yet culturally different neighbour, Finland.

The Locations

When Estonia gained independence from the Soviet Union in 1991, its technology was so backwards that "less than half the country had a telephone line"[1]. For context, Finland, Estonia's neighbouring country, was moving onto a digital telephone network. Estonia embarked on an ambitious digitization project in the 1990s, is now the digital governance beacon in the world. The renowned "e-Estonia" initiative has transformed the Baltic country to one of the world's most connected and convenient societies to live in. Most of the public services, including voting, expedient business taxation, banking, business registration, court hearings and even policing, can be performed online with a digital ID[2]. e-Estonia is powered by a complex and secure software and hardware eco-system that utilizes cutting-edge digital technologies including blockchain, Internet of Things and decentralized data management[34]. Estonia was named "the most advanced *digital society* in the world" for its smart nation initiative[5]. Estonia's rapid transformation has been the cause of envy for a lot of countries. Even Singapore Prime Minister Lee Hsien Loong has cited Estonia's digital ID as a role model for Singapore's smart nation initiative[6].

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[1]Blog, Wen Hoe, Government Innovators Network, June 7, 2017:
https://www.innovations.harvard.edu/blog/estonia-one-small-country-digital-government-having-big-impact-x-road

[2] e-Estonia - Business and Finance, accessed 17.2.2018,
https://e-estonia.com/solutions/business-and-finance/e-tax/.
[3] e-Estonia - Security and Safety, accessed 17.2.2018,
https://e-estonia.com/solutions/security-and-safety/e-court.
[4] e-Estonia: One Small Country's Digital Government Is Having a Big Impact, Harvard Kennedy School Ash Center, 7.6.2017,
https://www.innovations.harvard.edu/blog/estonia-one-small-country-digital-government-having-big-impact-x-road.
[5] Concerned about Brexit? Why not become an e-resident of Estonia, WIRED, 27.3.2017,
http://www.wired.co.uk/article/estonia-e-resident.
[6] Estonia shares secrets of its tech success, Straits Times, 20.9.2017,
http://www.straitstimes.com/singapore/estonia-shares-secrets-of-its-tech-success.

How did a compact country with a small population, limited natural resources, and virtually no technological infrastructure transform so much, so fast? How can governance initiatives be designed to maximize positive impact on citizens' lives? These questions hold a lot of importance to countries all over the world, but more specifically, Singapore, India, and China, that are investing billions of dollars in digitization initiatives.

We wish to focus on the following aspects of Estonia's digital initiatives:
1) The attitude or outlook required by governments to implement cutting-edge infrastructure initiatives over long periods of time
2) The amenities or privileges felt by the residents of a so-called "digital society"
   a) More importantly, how the digital governance affects the relationship of the citizen with the state
3) Contemplating and analysing our experience in Estonia in the context of digital initiatives in the countries we are residents of that will rapidly change how we live in the future

The part of our trip in Finland is aimed at situating our focus (1) in the context of Estonia's geographical environment and cultural history. Estonia positions its e-governance initiatives as improvements in technology necessary in an age of competitive governance[7]. While being a generation behind Finland in technology in 1991, Estonia quickly matched and was able to even leapfrog over their technological capabilities. Finland is playing catch-up now, recently adopting Estonia's X-road system[8] and partnering with it on multiple data initiatives.[9] We are especially curious to see how the contrasting pasts of Estonia and Soviet pre-information era (communist vs democratic/capitalist) may have affected how they developed. Also, was Estonia's top-down approach to governance, especially in its implementation of a national ID scheme, the key to its success? By comparing the historical development of e-governance in these two advanced nations, we believe we can unearth some perception on how and why digital transformation initiatives can be successful.

Intellectual Engagement

Both Jincong and Sambhav are deeply interested in public policy initiatives and digital transformation. The effervescent interaction of these two areas in Northern Europe attracts them both.

Jincong is a sophomore who intends to major in Economics and is deeply interested in economic policy and how it shapes our lives. This trip would help Jincong, a writer and editor for Fox & Hedgehog (a global affairs online publication), to crystallize a more holistic worldview with a humanistic touch. His research experience on public utility and bureaucracy with Economics Professors Dr. Lei Yu-Hsiang and Dr. Xing Xia, as well as his past internship experience in venture capital inform him about how to critically approach the questions that motivated this trip. Coming from China, a communist society, makes him wonder if, and how,

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[7] https://e-estonia.com/ Success Stories
[8] https://www.newyorker.com/magazine/2017/12/18/estonia-the-digital-republic
[9]https://www.valitsus.ee/en/news/prime-ministers-estonia-and-finland-agree-take-digital-cooperation-new-level

the Soviet past of Estonia shapes the country's politics, social life and technology innovation today. He wishes to explore the topic from both the perspective of the government and the average folk of Estonia and Finland.

Sambhav is a sophomore who intends to major in Mathematical, Computational, and Statistical Sciences. Last summer, at his internship in IDC, a ICT market advisory firm, he grew interested in digital transformation and the development of innovative technologies. He learned about nascent tech such as Blockchain, Internet of Things, and Digital Analytics. Innovation driven by the government, such as in Estonia, feels a necessary model for developing countries to add critical infrastructure in the 21st century. He is most curious about Estonia's national ID and associated initiatives. The recent ambitious national identity (Aadhar) initiatives of the Indian government make him wonder how life would be shaped by such drastic measures, that may even threaten the privacy of individuals. Sambhav plans to build on what he learns during this trip to critically analyse the projects initiated by the Indian government.

Personal Growth

Having never been to Europe and having lived all his life in Chinese-majority societies, Jincong wishes to take on a cultural challenge by navigating in Eastern Europe, of which the social identity is often lumped into an inaccurate monolithic pan-Europe identity.

While Sambhav has lived in boarding schools and residential colleges, he never planned a trip of such duration independently and feels that he will learn a lot through executing this trip. Similar to Jincong, he feels he will learn a lot by taking on the challenge of going out and meeting strangers that are culturally much different and more inaccessible.

Our Questions and Method

In summary, our approach will be to engage and interact with the three main stakeholders of digital governance in Estonia and in Finland:
1) the government officials,
2) the businesses and organizations in commerce,
3) and the citizens.

This method will give us the diverse perspectives required to comprehensively understand the impact of the major pillars of e-services — medicine, transport, IT, taxation, voting, business incubation — on the lives of residents.

Our approach, of gaining perspectives from the three stakeholders for each e-service individually, was developed through multiple consultations with Prof Xing Xia, Prof Nick Smith, and Prof Simon Perrault, and extensive desk research. Our interaction with Estonian government representatives will not just be on understanding the various digital services their state has developed, but also on the motivations behind the push for digitalization and the attitude necessary for successfully implementing them. This question is especially

relevant to us, given the history of Estonia as a communist state, and its publicly-declared insecurity about falling behind Finland in innovation. Having these interviews interspersed with conversations with average citizens will give us a chance to also bounce their various views off of each other. We plan to at least visit the official government showroom for "e-Estonia". Here, we can potentially talk to the communications officer and governmental workers associated with the showroom. We plan to use second and third degree connections and cold outreach to book meetings or appointments with representatives in the specific services and academia we are looking at.

We also plan to meet the stalwarts of Estonian business, especially startups and investors in the telecommunications, transport, medicine, and finance industries, as the impact on business operation is an integral part of the overall impact on citizens' economic life. This will give us the opportunity to learn firsthand about the challenges businesses face due to bureaucratic public services and any changes in the ease of doing business now. Through this aspect of the trip, we will learn whether Estonia's digital push is a result of dialogues and active civil participation, or a top-down directive. In addition to our approach with the government, we plan to use meetups, conferences, tech fests, and seminars we find online to set up interactions.[10] We will visit the Telliskivi Creative city technological park, Estonia's biggest creative economic enterprise centre. The team behind the e-Estonia showroom also introduces visitors to industry reps. Furthermore, by potentially obtaining e-residency of Estonia, we will be able to experience some of the government's services for ourselves post-trip.

The final component of our trip in Estonia, yet the most valuable, is the interaction with the residents and citizens of Estonia. Through spontaneous conversations, on the street and in public places, and connections established beforehand, we will discern the way digital governance can shape the lives of the citizens. We also hope to uncover viewpoints on e-Estonia or some aspects of its impact that were not on the surface. Our guiding questions, as mentioned before, will aim to identify how the lives and experiences of Estonians are shaped by the new-age digital governance in their lives. We received advice from Prof Smith to obtain ethics clearance for recorded interviews before departure. We will attend the Ethics workshop conducted by the Committee clearing capstones with ethics-related requests, happening next week.

The conversation carries on in Finland. Due to a shorter period planned for Finland, we would adopt a similar but more focused approach to interact with citizens, businesses and the government. We plan to visit places where Finns aggregate for different social purposes, such as the central market and the CBD, to find out how they view e-Estonia and the smart city strategy of Finland. In addition, we plan to connect with selected key stakeholders in Finland's smart city strategy through cold-emails. They include Helen Ltd., the world's most efficient energy provider, and Forum Vivium, the government agency in charge of urban and digital innovation. Lastly, we will reach out to Smart City Nordic, an annual business forum,

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[10] Eventbrite - Tallinn.
https://www.eventbrite.co.uk/e/founders-factory-comes-to-tallinn-to-meet-with-startups-and-investors-tickets-32387004402, accessed on 23.2.2018.

to get an overview of the business sector's feedbacks on current government digital and urban innovation initiatives.

In order to supplement and contextualize our primary interactions and our desk research, we will also visit the libraries and universities. We will go to the Estonian National Library and search through archives of policy papers, official statements, newspaper coverage, and research reports to build a nuanced understanding of Estonia's history. Prof Smith suggested meeting with academics from Tallinn and searching for more academic and industry connections through Future Cities Lab at NUS. We know Mr. Jonathan Denis-Jacob, the research manager at FCL, and will reach out to him for further guidance on aspects of smart cities/services. We have also found potential academics from Estonia and Finland whom we plan to reach out to and get to interview during our stay. The academics include Associate Professor Ingrid Pappel from Technological University of Tallinn (TUT), who specializes in e-governance solutions and heads the e-State technologies laboratory at TUT. In addition, we plan to learn more of Singapore's current progress in its Smart Nation initiatives, as well as the distinct Singaporean vision of public services. With interactions with academicians, we hope to bring more context to our experience.

Our Deliverables

Through this trip, we wish to make the following deliverables:
1) A seminar sharing our experience and learnings, potentially organised in collaboration with CIPE
2) Opinion articles that we wish to produce on the applicability of Estonia's example in digital governance in emerging Asian countries (primarily India and China). This can be done only after extensive follow-up research here in Singapore. We will use channels such as guest professional blogs, Fox & Hedgehog, and a Yale-NUS Consulting Group report initially
3) Four blog posts during the trip (once a week per person), relaying our experiences travelling independently in another country