

## **IGF 2017 Reporting Template**

- Session Title:

Quick-and-Easy AI Solutions for Nimble Public Services

- Date:

19 December 2017

- Time:

10:30 – 11:30

- Session Organizer:

*Ms. Katrina Kosa-Ammari, Counsellor, Permanent Mission of Latvia to the UN, Geneva*

- Chair/Moderator:

*Mr. Gatis Ozols (Deputy Director of Public Services Department, Head of Electronic Services Division of the Ministry of Environmental Protection and Regional Development of Latvia)*

- Rapporteur/Notetaker:

*Ms. Katrina Kosa-Ammari, Permanent Mission of Latvia to the UN, Geneva*

- List of Speakers and their institutional affiliations:

*Mr. Edmunds Belskis, Deputy State Secretary, Ministry of the Environmental Protection and Regional Development of Latvia*

*Dr. Signe Balina, President of the Executive Board of the ICT Association of Latvia (LIKTA) and representative of academia*

*Dr. Andrejs Vasiljevs, CEO, Language Technology Company "Tilde"*

*Mr. Aigars Jaundalderis, Member of the Board, Cloud Consulting Company "Squalio"*

- Key Issues raised (1 sentence per issue):

- Data as the new currency requires the development of data democracy (or promotion of access to data facilitating engagement in the decision making processes)
- Multistakeholder cooperation between the government, academia, private sector and civil society is key to a democratic and efficient e-governance.
- The role of clever AI solutions in ensuring a fit and efficient public administration for a small, smart and flexible nation like Latvia; related challenges: availability of resources; speed and accuracy of responses.
- Language and cultural diversity is an asset. Latvian as a small language spoken by about 2 million people continues to be strengthened over the second millennium thanks to the new language technologies.
- Interoperability of AI solutions: ensuring interaction among governmental services.
- Physical IDs are outdated: biometrics data basis allows for an AI enabled identity.
- The main characteristics of neural machine translation systems: accuracy, speed and quality.
- Speed cameras equipped with AI solutions allow to reduce serious road accidents in the hot-spots for up to 70%.
- Security and privacy remain in focus of attention and concern in the age of hyper-personalisation and big data.
- If we treat AI properly, it is helpful and might probably create more jobs than destroy.

- If there were presentations during the session, please provide a 1-paragraph summary for each presentation:

Presentation by Mr. Edmunds Belskis: "Latvia. Data Driven Public Service Delivery". Latvia is a digitally enabled nation, among global leaders in internet speed and consumption. 70% of population interact with public authorities online. Average annual ICT export growth is 15%. Latvia does have expertise in big data, AI and machine learning. The data driven nation concept involves: data democracy or promoting access and uptake of data (open data); data-enabled citizen engagement in the public administration processes and data and technology driven innovation and commercialization. The next level public service tools and approaches include: proactive delivery; human and machine integration; user driven service design and co-creation; citizen centric integrated processes; piloting and prototyping; innovation as function. Smart AI solutions for government do not always aim to replace the existing services. They may also very successfully relieve, split and augment them. Still there is a 77% probability of repetitive and predictable roles being automated. The share of digital care channels will grow. For example, public sector tailored machine translation securely translates texts, documents and websites. Whereas public sector virtual assistants platform provides for customer support and search assistance. It is equipped with user authentication, communicates in natural language, provides speech and text interface and is capable of social and emotional intelligence. A functioning example in Latvia right now is AI powered business register.

Presentation by Dr. Signe Balina "Latvia as Data Driven Nation" outlines multistakeholder cooperation model successfully applied in Latvia to promote a jointly defined common vision of Latvia as a Data Driven Nation. The vision is based on the opportunities that the 4th Industrial Revolution provides for a small, smart and flexible country like Latvia. In December 2016 the ICT Association of Latvia signed a cooperation memorandum with the government to enable work towards the implementation of this vision. The concept involves Data Driven Goals, such as strengthening of the ICT industry in Latvia and its export; increase of the share of ICT industry in the growth of the national economy; achievement of full potential of the digital government; increase of the competitiveness of the economy of Latvia. This cooperation allows public e-governance projects to serve not only as a foundation for better public governance, but also as innovation platform and launching pad for the implementation of innovative technology projects with high commercialization and export potential. To make the multistakeholder synergy even more evolving, ICT industry collaborates with other smart industries in Latvia. This has resulted in noticeable solutions in Bioeconomics and Biomedicine industries. The opening of the first Microsoft Innovation Centre (MIC) in the Baltic and Nordic States in Riga last year promotes digital transformation and development of innovative solutions. MIC provides an open space where industry experts, public sector representatives, students, researchers and entrepreneurs can engage and work together, sharing ideas, knowledge and experiences to produce the best solutions.

Presentation by Dr. Andrejs Vasiljevs "AI Powered Language Services". The language technology company "Tilde" is based in Latvia and provides software and localized products that are used by almost everybody in the Baltic States. "Tilde" has developed a strong R&D collaboration with more than 20 universities worldwide and it has its own strong research and innovation team that has produced more than 120 scientific publications. Neural machine translation (MT) systems built by "Tilde" won the first place at the Conference on Machine Translation in Copenhagen in 2017 (WMT2017). "Tilde" is also the official eTranslation services provider to the EU Presidencies (with Bulgaria and Austria upcoming): traditional MT systems allow to translate formatted documents while preserving formatting and style, whereas neural MT systems are built with cutting-edge AI methods and provide high-speed, superior-quality translation instantly. "Tilde" also elaborates virtual assistant platform for public services. For example, the platform "Laura" communicates in natural language, provides speech and text interface, responds in multiple languages and on multiple platforms, including FB Messenger, Skype, Web and mobile apps; it is capable of social and emotional intelligence. "Laura" is being successfully applied to service the customers of public libraries. "Tilde" helps to turn data into answers addressing the everyday needs of citizens and public servants through AI solutions. This approach allows government data to become more accessible and used. Dr. Andrejs Vasiljevs summarizes the effects of putting Bots in Service for e-Government into four points:

- transformation of communication (making e-Government more accessible, informative and friendly as well as ensuring unified customers service);

- reaching all citizens in a familiar and accessible way (through their favourite social media platforms, in their language and including people with special needs like visual impairment of dyslexia through spoken language communication);
- fostering engagement (through collected and analysed feedback);
- resources saving (especially the time resource often spent in excess to answer typical questions).

Dr.Vasiljevs concludes that language and cultural diversity is not a problem but an asset in Europe, and that Latvia has achieved excellence in smart data-driven language technologies that it is ready to share.

Presentation by Mr. Aigars Jaundalderis “Beneficial AI for efficient public services”. AI role for public services includes automation and hyper-personalization. Mr.Jaundalderis argues that physical ID documents are outdated and should be replaced by a unified biometrics identity service which has been created in Latvia. It allows to provide public, health and other in-person services without requiring the ID in the form of a physical document. E-voting and driver license are some of the practical examples that may be ensured by this unified service. Transportation is a bloodline of modern economy. The challenge is to make it as efficient, safe and secure as possible (every year road accidents kill 4000x more people than airplane crashes), environmentally friendly, inclusive (responding to the needs of disabled and senior citizens). AI can assist in the following ways: to detect and assist traffic flows for handicapped persons; to detect and enforce public transportation priority traffic; to enforce personalized speed limits in different contexts. The goal of AI research should be to create not undirected intelligence, but beneficial intelligence. A challenge is to grow our prosperity through automation while maintaining people’s resources and purpose. Another challenge is security: how to make future AI systems highly robust, so that they serve the intended purpose without malfunctioning or getting hacked. AI should not jeopardize privacy: the application of AI to personal data must not unreasonably curtail people’s real or perceived liberty.

- Please describe the Discussions that took place during the workshop session (3 paragraphs):

A concern was raised by the OECD representative about a private company owning the data on speeding as described by the *Squalio* representative. Mr.Aigars Jaundalderis replied that privacy and security were key in the context of hyper-personalisation and big data. However in the examples described the private company *Squalio* did not possess any data on vehicle owners and did not make any decisions on excessive speeding: all of that competence lied with the law enforcement agencies. The only data travelling through the *Squalio* system was the publicly available one, for example, licence plate numbers could be seen by everyone on the streets. Thus the data gathered by the private company was dissociated from its sources.

Another person, Sebastien from France, asked if the panel really believed that the stick, punishment of the driver would help to limit speeding. He shared his opinion that drivers wanted to be helped and not punished. Mr.Edmunds Belskis replied that the interaction with the public should of course be a win-win situation. AI provided efficient, user friendly solutions. There were different ways in which AI could be used in the public sector, sometimes replacing public functions. And it was true that sometimes it was needed to use these technologies also for inspection and control functions like investigations and jails.

Mr.Aigars Jaundalderis replied that the example [a video on speeding in the presentation] was chosen on purpose being well aware of its provocative nature. What should be clear was that the very same technology could be used also for the city planning, traffic flow optimization and to help the mobility of people with special needs.

- Please describe any Participant suggestions regarding the way forward/ potential next steps /key takeaways (3 paragraphs):

One participant suggested that in organising future sessions more time should be allowed for free exchanges and discussions and less for classroom style presentations.

## **Gender Reporting**

- Estimate the overall number of the participants present at the session:  
Around 50.

- Estimate the overall number of women present at the session:  
Around 25.

- To what extent did the session discuss gender equality and/or women's empowerment?  
The session did not focus on these issues. However Dr.Signe Balina noted the active interest and involvement of girls in ICT studies.

- If the session addressed issues related to gender equality and/or women's empowerment, please provide a brief summary of the discussion: