Welcome back!

It has been a busy time here at EPIC since the distribution of our last newsletter. As well as being the project's final year, 2019 so far has featured a full roster of international events. February alone included a Booksprint in Singapore, a Melbourne Meetup discussing Europe's new Digital Single Market (DSM) and its potential impacts for Australia; the International Dimensions of Artificial Intelligence conference in Canberra; and a four-stop event series which criss-crossed New Zealand's major cities examining the topics of AI, data and consumer empowerment as well as lessons from Europe's Digital Single Market and implications for New Zealand. The month of April then brought EPIC to Singapore in support of another sold out and highly anticipated event, Security and Privacy – The Role of Artificial Intelligence. From the widespread interest – and registration numbers! - these events have attracted, it is clear that Artificial Intelligence, security and privacy, and the Digital Single Market are all increasingly hot discussion topics.

As we enter EPIC's final months it now becomes time to consider and measure the project's ultimate impacts, successes and lessons learned, relationships built and future potentials – in short, the second and third quarters of 2019 will be a stimulating time. While the end may be in sight, I would still invite you to stay tuned to our website and social media channels (if you're on twitter, you can follow us **@EPIC_ProjectEU**, and we can also be found on **LinkedIn**) for some final events, as well as other interesting updates on associated programmes and past happenings.

We hope that you enjoy reading about what has been epic on EPIC in 2019!

Warm regards,

Erich Prem
EPIC Project coordinator

AI for Security and Privacy

by Erich Prem

Perhaps contrary to popular belief, Artificial Intelligence (AI) can be your friend when it comes to security and privacy. There is an intensifying debate about AI as a technology enabling privacy intrusion at an unprecedented scale. At the same time, AI-enabled solutions also create new exploit challenges for system security. A third concern is the amount of training data required for AI solutions. In many cases solutions are based on loads of personal data posing even more challenges for people's privacy.

Much has been said about how we all need to let go of our privacy to harvest the benefits of AI. It has even been argued that Europe's new and strict data protection rules undermine AI innovation. But there is a new trend emerging: to use AI for improved security and for maintaining people's privacy.

A range of innovative and often young companies use machine learning or intelligent pattern recognition technologies to detect security threats in computer systems or to help keeping personal data private. As an example, Austrian start-up mostly.ai uses deep learning neural networks to anonymize data. It creates synthetic data models with similar statistical properties than those in the original, non-personal data set. This retains valuable information for most applications that would usually use personal data.

Companies like mostly.ai even benefit from new, strict privacy regulation. Several jurisdictions around the globe are taking inspiration from Europe's privacy rules thereby also pushing innovation for privacy-preserving technologies. In parallel, increasing concerns about AI security have created new research and innovation challenges for researchers in the AI and security fields. These developments demonstrate how innovation and policy can mutually stimulate each other. Most importantly, it shows that we should not feel victims of technology development, but rather take the opportunity to influence their design.

EPIC stops by Singapore for Security & Privacy – The Role of Artificial Intelligence

These topics were in the spotlight at an April 9th event in **Singapore** entitled '**Security and Privacy – The Role of Artificial Intelligence**'. The symposium, organized by EPIC in partnership with **AI Singapore** and **A*STAR's Institute for Infocomm Research**, to further EU-Singapore IT cooperation, attracted both a sellout crowd of more than 120 and an international roster of speakers from academia, industry and the startup scene. The theme of the afternoon was how security and privacy have become major concerns for private citizens, industry and policy makers. Particular emphasis was placed on the dual role of **artificial intelligence** (AI) in this domain both as a source of concern but also as a source of potential solutions.

The event was divided into two sessions and attracted many presenters who are trail blazers in the AI field. Session one focused on **privacy** and featured an opening speech by Dr Dan Bogdanov, head of the Privacy Technologies Department at Estonian startup **Cybernetica**. During his presentation, Bogdanov highlighted the breadth of choices to deal with privacy – from ignoring it, to not using personal data to new and sophisticated methods for harvesting personal data without revealing it. This was followed by a panel discussion in which discussants Tim Llewellynn, co-founder and CEO of Switzerland-based **nViso**; Christopher Muffat, founder and CEO of Switzerland and Singapore-based **Dathena Science**; and, Mitchell Bradley, head of business at Austria-based **Mostly AI**, in addition to Bogdanov, shared their thoughts and answered audience questions on new AI-based approaches to protecting privacy.

In the second session, focus shifted to the topic of **security**. Keynote **Mike Anderson**, CTO of **DEX** and founder of **Ocean Protocol**, emphasized value objectives and discussed at length the current lack of proper connection between data and AI. In addition to Anderson, a second panel focusing on security and the important role of international collaboration was comprised of industry veteran and Chief Innovation and Trust Officer at **Amaris.AI**, Professor **Yu Chien Siang**; Dr **Martin Saerbeck**, a senior technology consultant who leads the research and development initiatives for the strategic segments of smart sensor networks and robotics at **TÜV SÜD Asia Pacific Digital Service**; **Mateusz Chrobok**, CEO of

Poland-based startup **Digital Fingerprints**; and, **Jason Gleason**, founder and CEO of New Zealand-based **Eightwire**, a data logistics product that powers AI, analytics and cross-enterprise data sharing.

"Singapore is ideally located to mediate between the East and the West. It has also proven to be a place to test new technologies in an environment very different from Europe – be it differences in climate or in societal embedding of new IT," said Prof. Yu Chien Siang following the event.

"International collaboration is not just important to make best use of human capital from around the world. In areas such as privacy and security, international collaboration is a necessity – in technology development, but also in policy and regulation", confirms **Dr Erich Prem**, CEO of **eutema** and project manager for the EPIC initiative.

The event marks one of the last large-scale, international events for the EPIC Project, which will conclude at the end of July 2019.

The Singapore event attracted a sell out crowd. Photo: M. Chrobok.

Christopher Muffat, CEO & founder of Dathena Science, presents.

EPIC supports series of events highlighting global impacts of Europe's new Digital Single Market

The new **Digital Single Market** (DSM) is part of a strategy by the European Commission to ensure access to online activities for businesses and individuals under conditions of fair competition, consumer and data protection, and removing geoblocking and copyright issues. But what impacts might this legislation have for other countries? This topic featured prominently during of a series of EPIC-supported events throughout Australia and New Zealand in February and March of this year.

The series kicked off on February 11th with the **Melbourne Meetup, 'Europe's new Digital Market Rules – why should Australia care?**'. The evening included presentations from, and a panel discussion featuring, **Maarten de Rjke**, Professor of Artificial Intelligence and Information Retrieval at the **University of Amsterdam**, **Nicholas Nicoloudis**, Senior Business Innovation Strategist at **SAP**, and **Erich Prem**, a Vienna-based technology consultant and EPIC Project-coordinator. The presentations assessed the global impact of the DSM and endeavored to clarify its potential impacts for Australia. During the lively panel discussion, it was further debated whether the DSM is just a new set of rules or in fact a possible hub for business and innovation. Another hot topic was the meaning of this new regulated net strategy. Might a third Internet emerge? One beyond the US Internet, where everything is accessible, and the Chinese Internet with its strict controls? This still remains to be seen. In all, the event attracted 130 highly engaged attendees with many interesting questions, making it a resounding success.

Continuing with this theme, EPIC then made the crossing to **New Zealand**, alighting in **Christchurch** (Feb. 25th), **Wellington** (Feb. 26th), **Queenstown** (Feb. 27) and **Auckland** (March 1) for a set of events entitled '**AI, Data and Consumer Em-**

[powerment: Lessons from Europe's Digital Single Market and Implications for New Zealand](#)'. The aim, once again, was to improve participants' understanding of Europe's new DSM policies including, for example, **data sovereignty** and new AI initiatives. Featured presentations explained basic new principles in DSM-related areas such as the **free flow of non-personal data; geo-blocking**; **algorithmic decision making** and their impact on new technologies and services, e.g. Artificial Intelligence. Each presentation was followed by a robust discussion during which opportunities for research and innovation in ICT were explored. Topics included possible collaborations for New Zealand-based businesses with European organisations and potential areas for improved policy cooperation between New Zealand and the EU.

The changing geopolitical situations paired with a technology dominance of a few very large internet companies suggests that smaller economies need to find alliances based on shared values. In such a context, New Zealand and Europe should reinforce their collaboration in ICT research and innovation and potentially also in regulatory aspects.

The events featured presentations from EPIC Project coordinator, Austria-based eutema Technology Management, followed by statements from innovative local New Zealand businesses. In Auckland, guest speaker **Paul O'Connor**, founder of **Datamine**, also provided insights into how perceptions of personal data collection have changed over time. As a leading data and analytics consultancy and product developer, he understands how the EU's DSM rules are influencing businesses globally – and even as far away from Europe as in New Zealand. Attracting a total of more than 120 registrations, the New Zealand leg of the event series also demonstrated the wide public interest in topics such as artificial intelligence and data regulation.

The EPIC New Zealand AI, data and consumer empowerment-focused event series attracted more than 120 registrants in Christchurch, Wellington, Queenstown and Auckland.

International Dimensions of Artificial Intelligence Conference Attracts International Experts and a Sellout Crowd to Canberra

On February 22, 2019, EPIC, in collaboration with the **3A Institute,** the **Australian National University's College of Law** and the **National Security College** played host to a full capacity crowd at the [International Dimensions of Artificial Intelligence](#) conference at **Canberra's Crawford School of Public Policy**.

The focus of the one-day symposium was discussion around how public policy, research and industry are approaching opportunities and risks of artificial intelligence in an international context. Particular emphasis was placed on forging a way forward in European-Australian collaboration.

The event was divided into morning and afternoon sessions. The morning programme focused on national and international (OECD) policies and strategies. It included a presentation on Australia's tech future strategy by **Elizabeth Kelly, Deputy Secretary of the Australian Government's Department of Industry, Innovation and Science.** Ms. Kelly pointed to opportunities and challenges arising from AI technologies and explicitly referenced the potential to collaborate with Europe on key questions including ethical aspects for AI. During her presentation, Ms. Kelly also suggested that a dialogue about AI regulation is an important area for EU - Australia cooperation as old regulatory models will not be fast

enough. The following panel discussion focused on European national policies, strategies and approaches to AI featuring representatives from Italy, Germany, Switzerland and Austria. The European representatives not only outlined their national strategies for AI research, but also emphasized the role of European collaboration on this issue. For example, the French and German AI strategies include actions for cross-border RTD activities.

After lunch, the programme transitioned into a series of in-depth workshops focusing on key AI topics for the future. These included: **security and the safeguarding of online and physical systems, law/policy** - **enabling reliable and trusted governance and business environments, improvement of health and well**-**being outcomes, arts and culture, education, culture, and robotic vision and creating intelligent vision capable robots**.

In addition to leading-edge technical aspects, it was surprising to see how many speakers included **culture and arts** in their thinking about AI technology. Art has a role to play in international cooperation, both for reaching out to citizens and to accelerate innovation in industry. Amy McLennan from 3Ai at ANU suggested to take a closer look into how AI can help to make our lives better and not just more efficient.

"The event clearly created many new bonds between Australia and the European Union. I am pleased to see that the EU-funded EPIC not only reinforced existing ties in research, but also stirred up interest in new areas such as art/science cooperation or using AI for citizen wellbeing," said Erich Prem, EPIC Project coordinator and CEO of Vienna based **eutema Technology Management**.

Given the success of the symposium and increasing public interest in topics such as artificial intelligence, robotics, and internet security and privacy, Europe and Australia should jointly develop new models of cooperation to facilitate cooperation and a more dynamic international exchange of concepts and ideas. As AI becomes an internationally pervasive technology, so should its regulation.

The Canberra event attracted many international AI experts.

Deputy Secretary Elizabeth Kelly was a featured presenter.

Tim Llewellyn, from nViso & Bonseyes Artificial Intelligence Marketplace spoke on security & privacy challenges.

Presenters Sue Keay from Data61, and Juxi Leitner from the Australia Centre for Robotic Vision.

Q&A with Ibrahim Imam, Founding Director of Plan Radar on doing business in Australia

PlanRadar GmbH, an Austrian PropTech startup, received the Technological Innovation of the Year award at the 2018 Australian Construction Awards in Sydney. EPIC recently sat down with co-founder and Managing Director Ibrahim Imam to talk about the situation for European startups wishing to enter the Australian market.

Q: First of all, congratulations to PlanRadar GmbH on having received the 'Technological Innovation of the Year' Australian Construction Award in 2018. Please tell us a little about your prize-winning PropTech services.

A: Thank you! For us, the award was a great feedback to our work and another strong signal that the construction industry has recognized the benefits of digitization. PlanRadar provides an app that enables simple documentation, task- and defect management for construction and real estate projects. Users can save in average 7 hours per week using PlanRadar.

Q: As an Austria-based startup, what first attracted your company to do business in Australia?

A: The Australian market is one of the most tech affine markets in the world combined with a strong construction and real estate industry – a perfect match for us. Beside that one of our first subscribers in early days was an Australian company that was searching the web for construction software and found us online. That was the first signal and motivated us to have a closer look at the Australian market.

Q: What are the opportunities and challenges faced by EU-based companies when entering the Australian market?

A: Frankly, I could not identify many challenges for EU companies to enter the Australian market, especially for us as software provider it is quite straight forward like in the EU - once entered you find fantastic opportunities as well as a lot of friendly and open-minded people and easy access to the surrounding markets.

Q: Can you offer any advice to European ICT startups considering entering the Australian market?

A: Especially for ICT companies I strongly recommend to have a closer look if the own provided service or product can match the Australian market – and my expectation is that in most cases it will. To make it easier to cope with time zones and distances my advice is either to work with local partners or incorporate an Australian entity.

Ibrahim Imam, Founding Director of PlanRadar.

Members of the PlanRadar team collect their prize in Sydney, Australia.