



## ***International Workshop on Consumers and the Internet of Things (ConsIoT)***

Vienna – April 11<sup>th</sup>, 2016  
From 09.00 to 17.15

Hosted by *Cyber-Physical Systems Week (CPS Week) 2016*  
Organized by *Nexa Center for Internet and Society (DAUIN), Politecnico di Torino*  
Sponsored by *eBay Public Policy Lab*

**Webcast live by IoE TV: <http://www.ioetv.it/>.**

Twitter hashtag: **#consiot**

### **Programme**

#### ***Introduction***

- 09.00-9.15: **Welcome and framework** by [Miryam Bianco](#) (Nexa Center for Internet and Society, DAUIN, Politecnico di Torino)
- 9.15-9.30: **Introduction** (participants introduce themselves)

#### **For further information:**

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## **Workshop Session #1 “Consumers and the IoT: Hot Topics”**

9.30-09.50: **Pierre-Jean Benghozi** (Ecole polytechnique, ARCEP): **“Internet of Things: twin Challenges for the Regulation”**.

*Several IoT strategies are currently implemented by incumbents or new entrants. This expansion contributes to a proliferation of technical solutions, architectures, services and players involved in the IoT ecosystem development. The major – and complex – concern is thus to improve, connect and inter-operate existing objects, applications and networks – regulated or not. From a telecommunication regulator perspective, the issues at stake are just, on the first view, a continuation of the usual issues: spectrum management, design of infrastructure, numbering and portability, licensing, consumer protection, competition investment and innovation, for instance. Yet, IoT raises also some specific concerns and puts at stake the regulation. It has, for instance, to handle a context in which intense competition to win markets are simultaneous with cooperation and non-competition technological strategies to roll out infrastructure and set common standards. Faced with these twin challenges of regulation (aimed at stimulating innovation and competitiveness levers on the one hand, to define coherent and sustainable framework for connectivity on the other), several are the subject of attention for NRA: to understand ecosystem and the balance of the value chain, to set and control the relevance and quality of connectivity (functional requirements, coverage, frequency, access, interconnection ...), to ascertain interoperability (needs, standardization, platforms), to monitor the use and protection of personal data, to ensure security and resilience of infrastructure and applications. As such, IoT might call some fresh articulations between the various regulatory authorities.*

09.50-10.00: Q&A and comments

10.00-10.20: **Alain Strowel** (UCLouvain, Université Saint-Louis Brussels, Munich IP Law Center): **“Big Data in the Platform Economy”**.

*This presentation will address the issues surrounding the protection of, and access to, data in the online platform economy and the need to take into account the role of data in competition law and consumer law.*

10.20-10.30: Q&A and comments

10.30-11.00: **Coffee Break**

11.00-11.20: **Claudio Borean** (SwarmLab, Telecom Italia): **“Human and Artificial Intelligence in the Internet of Things: a possible Balance?”**.

*The Internet of things allows the creation of new services that are typically designed as data collection and analytics to extract a deeper “meaning” of the information*

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collected. Besides, new challenges are emerging considering automation and control capabilities through the actuation of IoT devices: smart thermostats, remote controllable heating valves and energy management systems and services based on optimization are rapidly emerging as very promising areas to exploit the IoT for business value creation. Moreover growing attention is emerging from latest achievements on deep learning and autonomous computing and the active role of humans in these “cyber-physical systems” need to be clarified. In this talk those challenges will be presented and possible strategies to overcome the issues of finding the right balance between humans and artificial intelligent systems will be exposed based on the feedbacks received from real field trials, such as the smart home pilot of the EU INTrEPID project.

11.20-11.30: Q&A and comments

11.30-11.40: [Paper] [Gianclaudio Malgieri](#) (Scuola Superiore Sant’Anna): **“(Intellectual) Ownership of Consumers’ Information in the Internet of Things: a new proposed Taxonomy of personal Data”**.

*The distinction between “commercial data” and other personal data is totally anachronistic. Nowadays, the Information Industry is totally interested in any data related to consumers: not only their commercial preferences or habits; but also their health conditions, their familiar situation, their financial conditions, their sport habit, their friendships, etc. All these data are considered fundamental for a precise profiling of consumers also considering specific business branches: e.g., insurance companies are very much interested in health conditions, daily habits, mental solidity, in order to forecasts risks or a precise life expectancy; advertisers are more and more interested in every aspect of daily life of consumers; etc. In such a situation, it makes little sense to continue categorizing personal data on the basis of subject matters. This paper proposes to change perspective on personal data taxonomy, and to classify personal information in accordance to its “relationship” with the subject and with the reality, and to its degree of creativity compared to reality.*

11.40-11.45: Q&A and comments

11.45-12.30: **Keynote** by [Alessandro Bassi](#) (IoTItaly): **“Roadmap Ideas for the Development of new IoT Products, between Business Models, Technology and social Megatrends”**.

*While all sources agree on the importance of IoT technologies in the Consumers space, there is no certitude on the exact timing and extent of this revolution. Often, while we tend to believe that technology follows a specific business objective, we can see that technology is created before a compelling business case is generated. IoT is also following this path: while a number of baseline technologies is ready, and while business cases were analysed, very little practical exploitation of these has been done. Collaborative Business models, for instance, seem to be used more on paper than in practical applications. During this talk we’ll go through different business models, how they relate to social mega-trends and what the technological*

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development arena should focus on in order to enable IoT-ready products.

12.30-14.00: **Lunch**

14.00-14.20: [Lucie Guibault](#) (Institute for Information Law of the University of Amsterdam): **“Me and my Smartwatch: how close are we? An Analysis from a European Consumer Protection Law Perspective”**.

*That a Smartwatch can tell the time is secondary. The real reason why people buy a Smartwatch is for the numerous extra functionalities it offers, from receiving email messages, to tracking one’s whereabouts and heartbeat. These functions make of a Smartwatch a very special object, for the purchase of the physical object says nothing about the right of the consumer to use the software embedded in it, to control the use of works created with it or to consent to the use of his personal data. What are the rights and obligations of a consumer with respect to his Smartwatch? Is the consumer bound by a license agreement for the use of the software? What is the nature of that licence, to what and to do what? Is the licensing contract properly formed? What if the functionality of the software does not meet the consumer’s reasonable expectations? Can the consumer effectively oppose the processing and the monitoring of his personal data? This presentation will examine these issues in the light of the European rules on consumer protection, copyright and data protection.*

14.20-14.30: Q&A and comments

14.30-14.50: [Effy Vayena](#) (Health Ethics and Policy Lab, Institute for Epidemiology, Biostatistics and Prevention, University of Zürich): **“Internet of medical Things: ethical Challenges and Opportunities”**.

*The IoT is said to revolutionize medicine. The ample applications of automation, big data analytics, and the internet in the clinic and beyond suggest that the future of medicine and health care will indeed be entangled with the IoT. Despite the promise and the excitement around the immense potential for more effective and efficient health care, IoT in medicine raises several wicked ethical questions. In this paper I explore some of the specific questions around privacy, patient autonomy, and the reshaping of the doctor-patient relationship.*

14.50-15.00: Q&A and comments

15.00-15.10: [Paper] [Johanna Ullrich](#), [Artemios G. Voyiatzis](#), [Edgar R. Weippl](#) (SBA Research): **“The Quest for Privacy in the Consumer IoT”**.

*Privacy remains among the toughest challenges for the consumer-facing Internet of Things (IoT). Privacy-by-Design (PbD) is the most recent attempt to address it. Thereby, privacy goals become part of the technical specification and are resolved directly in the development process. This contemplation opposes existing approaches that retrofit protection measures as an afterthought, often even after the*

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*introduction of the “things” in the market. PbD is not solely a technological approach; it is directly addressed by the European General Data Protection Regulation (GDPR) that is presumably going to come into force in 2018. In this paper, the drawbacks of the retrofit approach when applied to IoT, using as a case the IPv6 (one of IoT’s key networking technologies), are highlighted. It is argued that PbD is a resolution of specific significance (if not by now the only one) promising to directly solve the privacy challenges. Nevertheless, a significant omission is identified: neither legislation nor technology mandate the consumer involvement.*

15.10-15.15: Q&A and comments

## **Workshop Session #2 “Consumers and the IoT: Discussion”**

15.15-15.20: **Scene setting** by [Hanne Melin](#) (eBay Public Policy Lab)

15.20-15.30: **Introduction to discussion** by [Miryam Bianco](#) (Nexa Center for Internet and Society, DAUIN, Politecnico di Torino)

15.30-16.00: **Coffee Break**

16.00-17.00: **Discussion**

## **Conclusion**

17.00-17.15: **Conclusion** by [Marco Ricolfi](#) (Nexa Center for Internet and Society, DAUIN, Politecnico di Torino)

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