

Tutorial proposal for IE 2022

Title

GDPR: one small step for people, one giant leap for our digital privacy – *Implications in software development and IoT scenarios*

Names and Affiliation of Speakers

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Abstract, objectives and motivation

Do you know the GDPR? I'm pretty sure so, if I tell you that the annoying messages that fill your screen when you visit a website are motivated by the European General Data Protection Regulation (GDPR), which came into effect on May 25, 2018. The GDPR gives us new rights as citizens over our personal data, with the aim of improving transparency and trust in data collection and exchange procedures. In this tutorial, I will summarize the main benefits that the GDPR brings to our digital lives and the implications for organizations and entities that handle personal data of European citizens. In addition, I will present the principles of *privacy by design*, applied by the GDPR. Finally, I will describe an example of the impact of the GDPR on IoT scenarios and briefly present the Jean Monnet project “EU-GDPR: New data privacy regulation in the European Union - Impact on EU citizens and organizations (EUpriv8),” GA 611826-EPP-1-2019-1-ES-EPPJMO-PROJECT, in which I participate with colleagues from the University of León (Spain).

Keywords

Data protection, GDPR, privacy by design, IoT

Intended Audience

The tutorial is aimed at researchers and industrial actors working with IoT or other smart environments. The tutorial provides an introduction to data protection and privacy issues related to IoT, as well as a technical description of the General Data Protection Regulation. No specific knowledge is required, the basics are covered during the tutorial.

Content outline

1. Regulatory framework
2. What is the GDPR?
3. GDPR: a New (Privacy-Related) Era

4. Implications of the GDPR (for organizations and entities; for data subjects)
5. GDPR Checklist
6. GDPR in the software development: implications
7. IoT and GDPR
8. The EUpriv8 Project

Description

The European General Data Protection Regulation (GDPR) entered into force on May 25, 2018. The GDPR has put the focus on privacy in the foreground, with the aim of protecting the personal data of European citizens. As software developers, we need to know what the GDPR imposes on our systems because the burden of responsibility falls on the organization and entities, who must have the appropriate security mechanisms to ensure that they comply with the GDPR. In addition, different scenarios may have different privacy concerns, such as IoT, robotics, etc. In this digital world where any company can be the target of a cyberattack and be a victim of data theft or leakage of data, we must be aware of what the GDPR imposes on us. The main objective of this seminar is to report on the impact that the GDPR has on different technological environments. With an informative approach, the tutorial will review how the GDPR affects the day-to-day life of the actors involved in the development of applications, from developers to companies with personal data.

Teaching mode

The tutorial is planned to be face-to-face only. As an alternative plan, the tutorial can be done in hybrid mode, using a Google Meet session.

Materials

The audience will have access to the presentation slides of the tutorial.

Additional information (optional)

(nothing)

Bio-sketches

Ricardo J. Rodríguez received M.S. and Ph.D. degrees in Computer Science from the University of Zaragoza, Spain, in 2010 and 2013, respectively. He is currently an Associate Professor at University of Zaragoza, Spain. His research interests include performance and dependability system analysis, digital forensics, and program binary analysis. He has participated as speaker (and trainer)

in several security conferences, such as NoConName, Hack.LU, RootedCON, Hack in Paris, MalCON, or Hack in the Box Amsterdam, among others. He is the leader of a research line devoted to computer security in the University of Zaragoza (<https://reversea.me>).