A development kit to protect your data on the web

PIMCity - Building the next generation personal data platforms is a new EU-funded research project coordinated by Politecnico di Torino

A consortium of 13 international partners (IMDEA Networks among them) will develop new technologies for a fair and transparent use and control of personal data on the web

With a simple click on “I agree”, often without reading any disclaimer about privacy and data management, we give away personal information to get free access to online services. We do not have the possibility to control and negotiate, compelled to blindly provide to an unknown recipient sensitive information about our lifestyle, our preferred commercial merchandise or service, up to data such as sexual orientation or health problems.

The web economy has been revolutionized by the unprecedented possibility of collecting massive amounts of personal data to be used for commercial purpose. This change has deep consequences for users, but which solutions are possible? The most extreme would be not to share any data, but this would damage information services and web sites that live thanks to online advertising. It is thus necessary to study technical and economical solutions for the control and sharing of personal data on the web. This is the aim of “PIMCity - Building the next generation personal data platforms”, a research project funded by the European Union in the framework of Horizon2020 and coordinated by Marco Mellia, professor at the Department of Electronics and Telecommunications of Politecnico di Torino and responsible of the SmartData@PoliTO Research Centre.

The project (in which IMDEA Networks participates) aims at building systems that ensure the control of the data on the Internet: it is a development kit for PIMS - Personal Information Management Systems - allowing end users and providers of commercial services on the web to modulate and create new and more transparent markets for data. Practically, it is a set of software components to be used like bricks with specific characteristics, for building the solution tailored to your needs. Choosing between components, one can shape interfaces for both end users that surf the web and need to store their data in safe places to consciously share them later; and companies that can create new markets, collecting and and using data of interest in a transparent way while also being able to provide monetary compensation to end users in exchange for their data.

“When I think to PIMCity I think of my daughters and their friends”, declares Marco Mellia. “Today, they pass on their information to web giants and other companies without any choice. PIMCity will allow them to consciously choose which data to share, and with whom to share it”.

The PIMCity consortium received a budget of 5,24 million euros to work for 2,5 years and it is as follows: Politecnico di Torino, Italy (project coordinator); NEC Laboratories Europe GmbH, Germany; Ermes Cyber Security SRL, Italy; Fundación IMDEA Networks, Spain; Universidad Carlos III de Madrid, Spain; Telefónica Investigación y Desarrollo SA, Spain; Fastweb SPA, Italy; LSTECH ESPANA
IMDEA Networks Institute is a research organization on computer and communication networks whose multinational team is engaged in cutting-edge fundamental science and technology. As a growing, English-speaking institute located in Madrid, Spain, IMDEA Networks offers a unique opportunity for pioneering scientists to develop their ideas. IMDEA Networks has established itself internationally at the forefront in the development of future network principles and technologies. Our team of highly-reputed researchers is designing and creating today the networks of tomorrow.

Some keywords that define us: 5G, Big Data, blockchains and distributed ledgers, cloud computing, content-delivery networks, data analytics, energy-efficient networks, fog and edge computing, indoor positioning, Internet of Things (IoT), machine learning, millimeter-wave communication, mobile computing, network economics, network measurements, network security, networked systems, network protocols and algorithms, network virtualization (software defined networks – SDN and network function virtualization – NFV), privacy, social networks, underwater networks, vehicular networks, wireless networks and more...

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