From IMB 360 to Big Data. The evolution of surveillance technologies and Data Protection Laws in Europe.

The evolution of Privacy as a legal right has its roots to the famous article written in 1890 by Samuel Warren and Louis Brandeis in Harvard Law Review. It addressed the privacy implications of the modern (at the time) technologies, as photography, claiming that the law should recognize a tort which would be protecting individuals from disclosure of information concerning their private lives.

The emerging of computers in the 1960s has opened new paths in the way data and information was stored, processed and circulated. The use of private information by governments and large corporations demonstrates that a new era of privacy invading technologies begins. In response to these concerns a number of national legislative initiatives came about such as the first data protection law of the German State of Hesse in order to regulate access to centralised data banks.

The development of telecommunication networks and the Internet that facilitated the international flow of data led to the creation of the 1981 Council of Europe Convention No. 108 and the adoption of Data Protection Directive 95/46/EC. In the meantime, the rapid evolution of Internet as a driving force of unprecedented social economic and political implications has also created serious risks for the individual privacy. In 2000 The European Charter of Fundamental Rights recognises the right to data protection, whereas a new set of directives such as the ePrivacy Directive 2002/58/EC, Data Retention Directive 2006/24/EC, Directive 2009/136 amending the Directive 2002/58/EC to address the complex issues created by the Internet technologies, were adopted.

The development of web 2.0, cloud computing and a series of new ubiquitous technologies create a surveillance network, where vast amount of digital information from virtually all aspects of everyday life is in the service of private or government entities. Acknowledging the need for a more effective regulatory framework the EU has already proposed a new package for reforming the data protection rules.

This paper attempts to comprehend the evolution of data protection rules in Europe under the light of the interrelation between the production of legal rules, the socio-legal concept of data protection and the advances in ICT's. Within this context, specific legal issues as the very concept of personal data, the transborder data flow, the identification of the responsible for compliance with data protection rules and the role of data protection authorities will be examined.

It is argued that understanding the historical background of both data protection rules and technological evolution, we can redefine the goals and objectives of the regulation and move with greater certainty in the continuously changing and uncertain technological future.