RESEARCH SEMINAR

MIS Research Seminar

"Mapping the commons in the IoT (and AI) industry"

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Abstract:

Big Data as all the information goods are subject to enclosure through digital technology and legal tools. Data collected, stored and pooled through the Internet of Things (IoT) or the Artificial Intelligence (AI) are no exception to this. This analysis has to do with the access to information by third parties who may have an interest in using and sharing these pools of knowledge. The guiding idea should be to follow design principles and architectures inspired by the so called knowledge or information commons as advocated by Elinor Ostrom. The priority should therefore be to deal with data, information and knowledge present within the Big Data, IoT and AI structures as a common pool resource.

The method of re-balancing the expansion of pervasive forms of protection with knowledge commons is a rhetorical one. Adding the element of knowledge commons to the overall picture facilitates the understanding of the algorithmic society phenomenon. It enables to shift the focus of the analysis from the ways for encouraging the data and knowledge production to the need of use and re-use information. It allows to have a more complete and exhaustive view on the dynamics related to the production of innovation and, it facilitates to understand how the algorithmic society may evolve in the future. Consequently, the aim of this paper is not to embrace knowledge commons indiscriminately, but to have an overall in depth understanding about what makes them valuable, in particular within the specific framework of the IoT (and of the algorithmic society).

This study tries to explain when the paradigm of knowledge commons applies to the phenomena of IoT and AI. Among the criteria that make this application easy there is for sure the nature of data: in particular, when processed information is composed of personal data, this latter is impeded to be in the commons, and - in another perspective - it creates barriers to the construction of a commons. An additional relevant element is the investment made by IoT market operators; when this latter is substantial these businesses tend to be reluctant in letting the information circulating widely; on the contrary they tend to control the information, via technical and legal tools, such as Intellectual Property Rights (IPRs) or contractual prerogatives.

This analysis identifies two different kind of commons in the IoT field: those created by regulations and those created by contracts. The first class of knowledge commons in the IoT (and AI) field is composed of those created by regulations can be connected to Public Sector Information (PSI) as well. The main question that could be solved in this area is related to the re-use of such a PSI within or in connection with the IoT. The second class of knowledge commons in the IoT (and AI) is made up of those created by contracts. A crucial issue related to this is on conditions is connected to the circulation of IPRs.

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