When Computers Decide

European Recommendations on Machine-Learned Automated Decision Making

The white paper *"When Computers Decide: European Recommendations on Machine-Learned Automated Decision Making"* presents the views of the Association for Computing Machinery Europe Policy Committee (EUACM)[1] and Informatics Europe (IE)[2] on the challenges posed by the increasing presence of Machine Learning and Automated Decision Making (ADM) systems in almost every aspect of modern human life. The paper reviews the most recent developments in ADM systems, stressing their benefits and risks, and the technology's potential implications in several areas: technical, ethical, economic, societal, legal and educational.

The results of this work for each such area is presented in a separate section of the paper, accompanied by key recommendations to European decision makers involved in setting similar policies. Broad themes and conclusions of the white paper include:

- ADM systems should satisfy the principles of accountability, traceability and responsibility. In order to do so, Ethics committees, strong legal systems, and a critical, informed and educated public will be indispensable;

- ADM's inevitably increasing capability and ubiquity will create the potential for both great benefit and profound social and economic change on large scales, including disruption to the lives and livelihoods of individuals, for which policy makers must carefully plan;

- A new international agency to help identify, sequence and manage the critical elements of coordinated ADM policy in Europe, which should be based on broad public and expert input now and in the future, may be essential to maximize the benefits of ADM while mitigating any resulting adverse societal and economic impacts.

"When Computers Decide" will be made widely available to IE's and EUACM's membership, policy makers, the media, and the public in mid-February 2018.

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[1] The ACM Europe Policy Committee is a standing committee of the ACM Europe Council. It promotes public understanding and sound public policy on a broad range of issues at the intersection of technology and policy. Its white paper on Cybersecurity was presented to the Scientific Advisory Mechanism (SAM) of the European Commission in February 2017.

[2] Informatics Europe represents the academic and research community in Information and Computer Sciences in Europe. With over 120 member institutions across 30 countries, it works to safeguard and shape quality research and education in Information and Computer Sciences in Europe.