MAKING ARTIFICIAL INTELLIGENCE BENEFIT ALL

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What is AI?

- AI is a set of technologies that can emulate functions normally accomplished by human intelligence

- Current AI (machine learning) is an extension of Big Data analytics - it was re-born a few years ago out of the huge quantity of data available

- AI does pattern recognition (natural language, voice, images) and prediction

- There is much hype, but large scale effects will come progressively in 2-10 years time (autonomous car, domestic robots)

AI is no ordinary technology

- AI is a General Purpose Technology: it will transform ALL economic sectors and social activities

- AI, like traditional IT but to a larger extent, will affect income distribution, hence social equilibria

- AI as an instrument of state power: weapons, mass surveillance

- AI has to do with the very identity of humanity, which is based on intelligence: hence it raises complex societal and ethical issues

Good AI, Bad AI

- AI can do the <u>best</u> (productivity, environmental technologies, helping the elderly), but also the <u>worst</u> (weapons, surveillance, addiction) - like previous technologies (fire, metal), but at a far larger scale.

- Basic question to society: what can society and government do for AI to serve society, i.e. ensure market needs are satisfied in accordance with societal values and satisfy non market needs?

Government is not ready

- Government does not have the money: About USD 40 billion was spent on AI in 2016, almost all by businesses. Salaries for AI experts are so high that government and academia can't afford hiring them (university professors in AI often have their main job in a private company).

- Government does not have, yet, the conceptual framework to design appropriate regulation - ethics, competition policy etc.

- Government is national, whereas many features of AI and issues raised by AI are global in scope

What can Government do?

- Contribute to develop AI, and do it in ways desirable for society: Invest more in research, partner with businesses, train students and researchers, control the provision of government data, leverage public procurement for collective needs

- Reflect on AI economic, societal and ethical dimensions, with the view to design appropriate policies

- Coordinate internationally

Thank you

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