AI and Economic Risk: Assessment and Mitigation

Joseph E. Stiglitz

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AI is a powerful tool with benefits and risks

- Some of the benefits are already apparent, but the extent of the benefits is still unknown
  - Particularly, to what extent will it resolve critical social, economic, and political problems
    - Decline in US life expectancy and health amidst huge expenditures on medical care not a result of a lack of knowledge: how will AI help
    - Increase in societal polarization and inequality not a result of a lack of knowledge: AI could exacerbate problem
- There are both short-term and long-term risks
- This talk focuses on short- to medium-term risks and how they might be mitigated
  - It focuses on consequences for overall societal wellbeing—not AI for its own sake

AI and risks to increasing inequality

- Inequality one of the major problems facing the world today—both within countries and across countries
- Contributing to societal polarization and dysfunction
- Impacts uncertain, *but almost surely net effect will be to replace labor rather than to "augment" labor (i.e. increasing productivity)*
  - Decreasing demand for certain kinds of labor—even some kinds of skilled labor
  - If pace of change is too rapid, almost surely leading to unemployment
  - If government doesn't take countervailing measures, almost surely leading to greater inequality
  - Exacerbating key current problem

Effects on global inequality may be even worse

- AI will decrease the value of “raw labor”—key asset of developing countries
- AI may enable significant efficiencies associated with the use of raw materials that may decrease the value of some of these
- At the same time, it may increase the demand for others (those used in the fastest chips)
- Remediation of global inequalities is even more difficult than dealing with national inequalities

AI, Market Power, and Inequality

- Problems may be exacerbated if there is market power associated with AI
- Extent of commodification of AI remains uncertain
- Extent of market power also affected by competition laws and how/whether they are enforced
  - DMA in Europe moves in the right direction: probably doesn't go far enough
  - Laws at center of political fight in US
  - Can Europe fight global monopolies on its own?
- **Market power gets reflected in inequality**
  - **And economic inequality gets translated into political inequality**—which results in high levels of tolerance of market power
    - And low taxation (globally, prohibitions against digital taxation)
    - Again reinforcing inequality—economic and political—in a vicious circle
- AI inequality also affected by intellectual property rules and how they are enforced

AI can expand all the digital harms associated with social media

- Even better targeting; even more deceptive mis- and disinformation; even more subtle hate speech, incitement, etc.
- Digital Services Act provides a framework for regulating
  - Will almost surely need to be strengthened
  - Again: US presents a problem—characterized as “censorship”
- Algorithmic editing is still editing
- Policy directed at preventing dangerous virality, where speed of transmission exceeds ability of system to provide counternarratives, and to ensure sense of accountability
  - That was removed from platforms by Section 230; needs to be restored
  - And AI should face same accountability
  - AI has additional problem: attributing to others statements that they did not make or attributes that they do not have—algorithmic defamation is still defamation

Mis- and Disinformation

Arms race—ability to detect and "remove" (or at least impede dissemination) vs. ability to produce and disseminate mis- and disinformation and evade detection

Experts in room may have a view on how this will play out

Answer may depend on policies

- Regulations, punishments for spreading mis- and disinformation
- But extraordinarily difficult to get right balance
- Partly (but only partly) issues of free speech
  - Free speech has always been curbed in broader societal interests
  - New circumstances require new rules
  - Rules may affect virality
  - Part of issue is "speed"—time to assess whether there is mis or disinformation
- Legal system has its limitations
  - Abuse of libel laws

Impacts on the Information Eco-System

a) Incentives to produce high-quality information
b) Ability to obtain/produce/process high-quality information, identify high-quality information, and to disseminate high-quality information and high-quality analyses based on high-quality information
c) Increased ability to produce and disseminate mis- and disinformation

Answers ambiguous—with both technical and economic uncertainties

Consequence of enormous importance

Incentives to produce high quality information

- Information is a public good, in the technical sense of Samuelson
  - But most information is privately provided
- AI is trained on privately produced data
- But results may decrease ability of private producers of information to appropriate returns from what they produce
  - Or even to have a viable business model (in the case of the legacy media)
- And that will reduce investments in the production of information, especially high-quality information (more accurate, more timely, more relevant)

Supply of high-quality information, and the quality of the information ecosystem?

- Thus, while AI may lower the cost of obtaining some kinds of information and the costs of processing information more generally, increasing ability to process/integrate/use information, it may reduce the supply of many kinds of high-quality information
- It may enhance the ability to pollute the information ecosystem: will AI be able to identify high-quality information? Does synthetic data really resolve the problem of "model collapse"?
- Net outcome uncertain
  - Technical issues—distinguishing between high-quality and low-quality information; real and synthetic—with consequences for output of AI; ability to produce relevant synthetic data; better "sensory capacities"
    - Will transformative AI help us make distinctions? Will it be able to keep pace with its ability to increase "information pollution"?
    - Answers may depend on problem being analyzed
  - Outcomes may also depend on legal standards on IPR

What are the appropriate legal frameworks for dealing with issue?

Intellectual property is a social construction

- Designed to promote societal welfare

Rules appropriate at one time, with one set of technologies, may not suite another time, with new technologies

- E.g. “fair use” exception

But with AI, detecting prior use of particular combination of words or notes will be easy—even if there was not “theft” of IP

Getting right balance will be hard

Risk of stifling innovation and creativity with the wrong design of IPR

Evaluating risks from broader welfare perspective

- There are large externalities and other market failures
- Unfettered development of AI is not likely to maximize societal welfare, no matter how construed—mismatch between objectives of firm and interests of society, already evident in social harms (such as polarization, dissemination of misinformation, polluting the information ecosystem)
- We can develop a regulatory/tax/intellectual property/accountability regime that at least mitigates some of critical risks
  - Likely to be strong opposition from vested interests

Risks vs. Rewards

- Outside of some areas in medicine, how large are the benefits? To return to initial question: To what extent will AI enable us to better solve critical societal problems?
    - Limited benefits of increasing material standards of living a little faster
    - At least in some contexts, even limited benefits of faster communication (one-act, 90-minute King Lear worse than full performance)
- Adverse effects may depend on the pace of change—too fast a pace risks change beyond the ability of individuals and society to adjust appropriately, e.g. change occupations or develop necessary legal and regulatory standards
- Perspective on risks vs. rewards informs one's stance on what kind of regulatory/tax/intellectual property/accountability regime is desirable
    - Putting aside geopolitics and the associated competition, what are the *social* costs of slowing down the pace of innovation vs. the benefits?