Abstract

Information, Communication, and Knowledge: The Impact of AI and Digital Platforms on the Information Eco-system

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We develop a tractable model to study how AI and digital platforms impact the information ecosystem. News producers—who create truthful or untruthful content that becomes a public good or bad—earn revenue from consumer visits through ads and data collection. Consumers search for information and differ in their ability to distinguish truthful from untruthful information and reliable or unreliable sources of information. AI and digital platforms influence the ecosystem through four main channels: improving the efficiency in processing and transmission of information, endangering the producer business model by reducing visits, changing the relative cost of misinformation, and altering the ability of consumers to screen information from dis-information. Even though these new technologies improve the efficiency of processing and transmission, in the absence of adequate regulation (e.g. concerning accountability, content moderation, and intellectual property protection) the quality of the information ecosystem may decline, both because the equilibrium quantity of truthful information declines and the share of misinformation increases; and polarization may intensify.   While some of these problems are already evident with digital platforms, AI may have distinctively different, and overall more adverse, impacts.