The knowledge society's origins and current trajectory

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Abstract

We address the rise of the knowledge society, reviewing the major contributors to its conceptualization from Karl Marx onward. Synthesizing their ideas, we characterize the current state and direction of the knowledge society, its connection to related ideas of digital economy, e-government, and others, and detail implications for business and other organizations, and for society at large.

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1. Introduction

The concerns of corporate executives, policy makers, and students planning careers turn increasingly to the knowledge economy. What does it mean? What are its imperatives for organizations? Is it the far future, the near future, or is it already here?

This paper provides a comprehensive overview of the historical roots and recent debates around the knowledge society and digital economy. Based on a review of some key contributions to the field, it derives the contours of today’s knowledge-based activities and their implications for business, not-for-profit enterprises, and society more broadly.

There is as yet no theory of the knowledge society. The paper is motivated not by a gap in theory, then, but by the gap between the pace of technological and social change on the one hand, and the pace of business and policy adaptation on the other hand. Further motivation comes from the varying accuracy of past predictions about the knowledge society, and current disagreements among pundits. We thus trace the development of thought on the knowledge society and the knowledge economy, believing that understanding their historical trajectories can lead to a better apprehension of their future, and hence more effective action.

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We find roots of the idea of a knowledge society in the 1858 writings of Karl Marx, and we recap key writings from then through the present. From Marx, we move forward in time to Schumpeter (1930s and 1940s); Masuda’s 1980 view of the dimensional shapes of protein molecules (http://fold.it/portal/info/about). Later researchers addressing global and regional implications of the knowledge revolution; and, Peter Drucker’s work, means acknowledging that knowledge workers hold the economy’s reins as much as or more so than capitalist investors. Industry 4.0 refers to the increased digitalization of manufacturing, especially including robotics. The changes will disrupt markets and society in ways more radical than any transitions up to 98% of the US economy, (Satell, 2015).

As for whether the digital economy is here yet, Table 2 (reproduced from an IBM website) shows that it certainly is. Information and communication technologies, combined with Moore’s Law, have produced the networks of alliances that blur industry boundaries. Tett (2016) cites a McKinsey study claiming “digitization influences up to 98% of the US economy,” due to the high penetration of the Internet and smartphones. “The annual growth rate of e-commerce is dependably robust, vacillating between 15 and 17 percent since 2010.” Corporations’ most popular digital transformation tools as of 2016 are cloud computing and storage, big data analytics, social media, and mobile apps. These statements, powerful though they are, reflect the narrow view of IT service vendors and consultants. They do not reflect the sociological, organizational, and market changes that truly characterize the knowledge society.

We turn now to examining how it got this way. Adam Smith (1720–1790) referred to “new layers of specialists who are men of speculation and who made important contributions to the production of economically useful knowledge” (Parry, 2016). In this early juxtaposition of “knowledge” and “economy,” Smith was referring to entrepreneurs and investors knowing where to put their funds. This was a very different usage than that which concerns us at present. Knowledge now resides in workers and consumers.

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1 Home computer users may donate their unused computation cycles to analyze signals from various radio telescopes belonging to the Search for Extra-Terrestrial Intelligence project (setiathome.berkeley.edu). They may do the same—and contribute their own creative input—to cataloging the three-dimensional shapes of protein molecules (http://fold.it/portal/info/about).

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