The Role of Universities in Empowering Artificial Intelligence (AI)

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ABSTRACT

Since time immemorial, universities have played a foundational role in disseminating knowledge and pushing boundaries through spectacular inventions in science, medicine, and technology. This article explores the role of universities in the context of the ascent of Artificial Intelligence (AI). It proposes a pathway for harnessing AI's vast pedagogical capacity and simultaneously mitigating its perceived threats. Humanity is on the cusp of a transformational innovation and AI can transform pedagogy and support cutting-edge research. However, postsecondary institutions must take a leadership role in developing academic policies for the responsible use of AI, integrate AI with modern learning techniques to enrich the student experience, and position AI for the purpose of enhancing scholarly research. In addition, this article exposes the reader to a conversation regarding human capital, the theory of innovation, and the composite of contemporary work skills and technological competencies.

INTRODUCTION

Artificial Intelligence (AI) represents a monumental scientific and technological innovation. It is clearly a game changer for universities around the world. Indeed, AI may turn out to be the most revolutionary pedagogical tool since the invention of the printing press. AI can make a significant and profound impact on university teaching and research capacity. In effect, we are on the cusp of a transformational innovation and a new educational paradigm that can empower spectacular advances in pedagogy and facilitate cutting edge research for universities.

Since time immemorial universities have served as humanity's knowledge-keepers, intellectual drivers, and as catalysts for scientific and technological breakthroughs. The role of universities started with Plato teaching his students the fundamentals of democracy under the shade of an olive tree in Athens, Greece. It was refined by his student Aristotle who prescribed the three operational principles for universities as the creation of knowledge, skills, and wisdom. To this very day, the overarching mission of universities

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remains to create an educated society and a better world. In this journey, universities have always aspired to push conventional boundaries, integrate leading edge technology, and explore new scientific frontiers.

Throughout the centuries, universities have withstood the most intensive test of time by leading change and innovation. They have been at the forefront of scientific discoveries, medical advances, product innovation, social change, public policy renewal, systems improvement, democratic enhancements, and serving as technology incubators. It has been a longstanding practice for universities to engage in new ideas, new paradigms, rigorous debate, social transformation, and breathtaking inventions. Their resilience, determination and intellectual foresight have bestowed on universities the reputation of being ahead of their time and intellectual visionaries.

THE AI CENTURY

The advent of a new millennium has revealed a rapidly evolving and challenging landscape. It all started with the ascent of the new global economy of the 21st century. The new economy has transformed the economic, social and technological landscape in a profound and indelible manner. Never in human history has the pace of structural change been more rapid, pervasive, and global in its character. The new global economy has become a catalyst for geopolitical symbiosis, economic integration, trade liberalization, technological innovation, financial interconnectedness, and a heightened awareness of the adverse economic consequences of climate change. Furthermore, the signature mark of the new global economy is new ideas, new technologies and new directions. In effect, the fuel of the new economy is technology, and its currency is human capital. The product of the new economy is knowledge, and its market is the virtual marketplace facilitated by the Internet.

The new economy is composed of a trilogy of interactive forces that include internetization, trade liberalization and the information technology and communications revolution. Globalization has morphed into internetization. Free trade has enhanced global economic integration and extended the economic architecture. The Information Technology (IT) Revolution has made geography and time irrelevant. All these pillars of the new economy are driven by a virtually borderless world with a tremendous capacity for electronic connectivity.

Internetization is a new word and concept that I have coined to describe the electronic empowerment and global outreach of the new global economy of the 21st century (Passaris, 2021). Indeed, internetization is a more compelling operational descriptor for the contemporary economic and social landscape than globalization. The concept of internetization underlines the foundational role of innovation and scientific advances for the economy and civil society. Internetization extends global linkages by simultaneously embracing electronic connectivity and the empowerment of the Internet. It captures the pervasive influence of technological change on the global economy and all aspects of human endeavour for contemporary civil society. Indeed, internetization has become a catalyst for transformational technological change, economic empowerment, and electronic communication on a global scale. In effect, AI is the brainchild and modern personification of internetization (Passaris, 2024A).

The new Millennium created a cataclysmic superfecta. It all started with the global financial crisis of 2008. The Great Recession that followed recorded negative economic growth and high unemployment. More recently, COVID-19 generated a global wave of economic malaise around the world. In addition, every country has had to contend with global warming, environmental degradation, and the loss of biodiversity leading to human lives lost and economic assets demolished. More recently, regional military conflicts and geopo-