

Innovation by Necessity vs. by Will: Economic Implications for the Society in the Second Knowledge Era

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ABSTRACT

The first phase of the Information Era (or Knowledge Era) generated improvements in productivity. Nowadays, society is living in the Second Phase of this era, characterized by innovations directed for the human welfare. Innovations may be guided by governments or companies, following planned or perceived obsolescence. However, as part of a Darwinist approach, innovations cannot be controlled and evolve as a living being. The paper discusses how innovations develop in a complex system, and how incentives, needs and will interfere in the creation and adoption of innovations in the Society. The paper also discusses how individual will and needs may influence social innovation towards eliminating social and economic inequality or creating inequality, preserving individualities and folk cultures. The paper presents some possible directions to achieve this.

Keywords: Complex Systems, Evolution of Innovations, Inequality, Innovation for Welfare, Knowledge Era, Need vs. Will, Planned vs. Perceived Obsolescence, Social Innovation

INTRODUCTION

Human beings start creating things by necessity. By this way, wheel, tools, agriculture, hunting and weapons evolved. But Ancient Greeks created literature and theaters just for relaxation, because they did not have to work hard (slaves worked to produce goods for all society). Humans did those innovations because they wanted, because they believed that those creations were somehow important. This is what distinguishes human beings from other animals: humans create things by desire, by

will of creating, without a real need. Humans have a creative instinct.

The first phase of the Information Era (or Knowledge Era) accelerated the development of information technology and worldwide connections, generating improvements in productivity. Nowadays, society has entered the Second Phase of this Era, characterized by innovations for the human welfare.

Steve Jobs states that the Productivity Era started by 1980, from the invention of spreadsheet and text editors and processors (Kahney, 2008). By the mid 1990, the Internet Era started.

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Today, humans are living the Digital Life Era, driven by an explosion of digital devices oriented to welfare, such as cellular phones, DVD and Blu-Ray players, digital cameras and mp3 players.

Himanen (2005) believes that the recent focus is on social themes. Innovations are moving from technologies for productivity to creations in culture (music, television, cinema, games, literature, learning) and biotechnology (medicine, longevity).

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INNOVATION BOOSTS THE ECONOMY OF COUNTRIES

Schumpeter (1961) stated that the creative destruction was the engine for Capitalism. Innovations revolutionize the economic structure from inside, destroying the old and creating the new forever. Such destruction brings economical benefits. Stimulating consumption and turning products obsolete quickly raised American economy after the 1929 crash and other crisis. Americans learned that consumption is one way to boost the economy. This is the birth of marketing and advertising. Farrell (2003) states that “*strong consumer confidence, for example, led customers to purchase more expensive goods, which also helped boost productivity*”.

The theory of Thomas Malthus (1789) about the exponential curve of consumption is so current in nowadays. But this is not only due to the exponential growth of population. Against Malthus’ theory, consumption is a propelling factor for raising wealth.

And consumption is the origin of employments. According to Castells and Cardoso (2005), technological changes do not cause unemployment. Although some workers are dispensed and some occupations disappear, new jobs are created to reallocate people. The problem is that both phenomena (old jobs vs. new jobs) do not run in the same rate: the number of new jobs does not always supplant the number of eliminated jobs at the same time.

Consumption is also a synonym for destruction and devastation. It is like a wave that carries all in the direction of the current. At the same time, these waves lead life to other places, where other kinds of needs exist.

Marketers know that consumption is important for the economy and have for many years tried to induce people for shopping. The idea is to create unsatisfied consumers, leading people to will what they have not yet desired (Rifkin, 1995). In some cases, fashion and social status are the propelling factors. People are now moving shopping from basic needs to little luxuries. Generally people compensate the auto-sacrifice in working with consumption as an immediate gratification. This is the main characteristic of the Second Knowledge Era.

THE ROLE OF ENTERPRISES

Adam Smith (1776) believed that egoism of individuals would construct a better world. He tried to demonstrate that the wealth of nations was a product of individuals acting by self-interest. Entrepreneurs look for the profit but generate gains to Society. Innovations spread in all directions when entrepreneurs try to find market opportunities.

Competition among companies can provoke innovation. Research from Diana Farrell (2003) discovered that managers are “*forced to innovate aggressively to protect their revenues and profits in the face of strong competition*”. According to Diana Farrell (2003), “*an important dynamic of the new economy is*

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