

Received: July 18, 2022 / Accepted: November 16, 2022 / Published online: Dec. 12, 2022
The © Author(s) 2022. This article is published with open access at Academia Analytica

ORIGINAL SCIENTIFIC PAPER

UDC 316.42:001.3

Conceptualising Innovation and Creativity in Knowledge Based Society

Jelena Gaković¹

Abstract

This paper raises a discussion on innovation, nature of knowledge and the growing significance of skills in contemporary society. We propose the argument that knowledge is commonly perceived in terms of skills only, as a result of an applicability logic rule in knowledge based social orders. Moreover, innovation is recognized as yet another central issue of our times that is strongly interrelated to technological developments and the realm of science. Creativity as a specific human feature, on the other hand, is widely accepted as a critical precondition for generating innovative products and ideas. The essential problem lies in the oversight of the role humanities and arts play in nurturing humanistic values, whereas means are commonly mistaken for an end.

Key words: innovation, society, creativity, knowledge utilisation, skills

¹ J.Gaković
University of Sarajevo, Faculty of Philosophy, Dept.of Sociology
Franje Račkog 1, 71000 Sarajevo, Bosnia and Herzegovina



jelena.gakovic@ff.unsa.ba

Introduction

Social scientists use distinctive typologies for societies, classifying them according to several markers such as: dominant economic sector, principles of organisation, world of work, levels of technology development, predominant type of communities, social relations, key social problems, forms of culture and communication and so on. In principle, extensive social change in structure is acknowledged once transformation has taken place to such an extent that it does not correspond to any of the old set of descriptors along the mentioned criteria. In the seventies French sociologist Touraine (1971) writes about the "postindustrial" or "programmed" society pointing out that the power is in hands of "tehnocracy" while knowledge and education play a deciding role in the social hierarchy. As the title suggests this paper offers a sociological contribution to (re) conceptualising innovation and creativity in a society named after its essential attribute - knowledge.

The article is divided into three sections. In the first part we recognize that, as commonly discussed, knowledge is seen as a fundamental characteristic of contemporary society. After introduction into the knowledge based society critical appraisals, the article makes a detailed insight into tehnological innovation rationale followed by an accompanying learning patterns and human consequences on the whole. The second section looks more closely into what kind of knowledge and skills are receiving favourable treatment or being discarded due to knowledge utilisation focus appertaining to economic profits' standpoint exclusivity. Based on these differentiations, we look how applicable knowledge i .e. skills are considered a number one priority of education policy schemes usually justified by labour market demands. In the third part, we examine some of the growing social problems today considering that they are likely linked to the changed status and understanding of knowledge nowadays. Our conclusions are drawn in the final section summarizing the main points of the paper.

Knowledge based society revisited

Knowledge is certainly a decisive characteristic that came under spotlight in today's society, whether we label it "postindustrial" (Bell, 1973, Touraine, 1971), "network" (Castells, 1996) or "knowledge" society (Drucker, 1969). In aforementioned social circumstances, knowledge is inseparable to the term society or economy in theoretical writings and in the public discourse. Coined as "knowledge based society" is defined by knowledge leading the ways of production in economy because it is, its main resource of growth and progress nowadays. On the other hand, in such a socio-political strategy scientists, innovators and universities are to enjoy a privileged place in society as knowledge creators. However, despite such a noble idea in theory, it appears that its implementating model is not supported by part of academia nor sciences branches, particularly authors with humanities and arts background (Liessman 2009, Ibrulj 2005, 2019, Nussbaum, 2010) .

Thus, aiming for the better understanding of possible consequences in the current direction of social developments, we examine argumentation informed by critical appraisals of the "knowledge society". Inspired by findings presented in the earlier research, we propose that the knowledge society's operational level reveals a noticeable trend - we pinpoint it here through an equation: knowledge = skills.

It is this aspect of the problem that is disclosing essential drawbacks in education systems guided by profit game. To address this phenomenon lets look more closely to the origins and theoretical presumptions of the societal model in question.

The general definition we will use here is the following: "contemporary society may be described as a knowledge society based on the extensive penetration of all its spheres of life and institutions by all forms of knowledge, especially scientific and technical knowledge." (Stehr, et al 2013: 1186) . This means, compared to previous society types, that the main form of capital are knowledgable highly educated people within primacy of the service sector, including scientists, researchers and educators among other professions. As defined, another specificum of the present-day society as compared to previous industrial social orders is recognized in high importance of technological expansion powered by innovation - another catchword of the knowledge society proponents. In addition, researchers have recognized a supplemental distinction between the two in the methods of learning process at work, as follows:

"In the industrial era, technological innovation takes place in such a way that it was learned through use (learning by using). For example we plug in some device and check if it serves its purpose. There seems to be no significant difference between application and consumption. In the new information era, however, technology is developing so that its various possibilities are actively experienced, through work (learning by doing), in order to continuously improve its qualities and find new applications." (Katunarić, 2000: 16-17)

By this, author explains a profound aspect of change related to how we learn that is thoroughly investigated in education studies in order to adapt teaching and training methods to new generations of students. Application of knowledge for further innovation is another important issue he brings to the fore. This is his elaboration about the result of this process: "a feedback loop between innovations and the use of innovations is created and accumulated". (ibid:17) A similar circular process is identified by Bauman (2009) when he tackles the logic of technological innovation, saying that tehnology age requires that any shortcomings and problems produced by technology are solved by new tech solutions ending in a "closed system" that calls for always new interventions and solutions, adding:

"The very availability of usable but still underused technological means ("we can do something", "we have the means and we know how"; "we can fix it") entices to their application; technological means, we would say, sufficiently legitimize their effects and thus make their use imperative - whatever the results". (Bauman 2009: 232)

With Bauman's insights we further build our knowledge society vocabulary with new buzz words - know how, technofix, knowledge in action etc. Although, this arrangement, as described above, may sound like a proactive attitude towards problem solving, its' external purpose, aside of maintaining itself alive, is debatable.

Let us explain. The process of technological innovations on a global scale is led by agents of the innovation imperative called "expert systems" as introduced in sociology by Giddens (1991) in his analysis of modernity. If we understand technology as instrumental to power and accept the classic argument that its' use and effects are determined by the context reproducing either democratic or authoritarian systems, we might as well ask what are the socio-political consequences nowadays as indication if we are getting closer to open and free societies or otherwise. In fact, critique of knowledge society model by Ibrulj (2019) underlines how uniformity of "golden standards" produced by techno-elites has serious social repercussions, pointing out that:

"An expert society or a knowledge-based society produces pragmatically homogenized contexts (standards in health, in education, in the economy, in production, in consumption) which then begin to produce relations in these contexts, the standardized behavior of the users of these models, which is moving away from humanization of life, from universality as a value that belongs to life itself. This results in a programmed individual-monad(...)." (ibid, 2019:16)

We are presented here with a question about what codes constitute this kind of human programming and how does standardisation, an idea coming from factory mass production, applies to human interactions and orientations. The pragmatic logic behind it is closely interwind with another highly valued principle in knowledge based society : economic efficiency and practical usefulness (as pursued by education reforms) referred to in the literature as a part of "mcdonaldisation" process (Ritzer, 1993). On the subject of (de)humanization - it has been widely addressed in connection with technology colonising our culture, communication and our daily lives. That said, it is important to note that academic dispute on artificial vs. human intelligence exchanges similar argumentation. The debate is usually bounded by ethical concerns and, on the one hand, offers accounts of dehumanisation associating us with radical scenarios of futuristic dystopian novels and sci-fi movies or on the other, convinced techno-enthusiasm on overcoming human body/reason limitations.

With a general sketch of knowledge society marked by technical knowledge and innovation, in the next part we go one step further in explication of the problem. We seek for answers about human features, types of knowledge and skills of particular value in such context.

Innovation, imagination and creativity without humanities?

American philosopher Martha Nussbaum (2010) criticizes the economic model according to which knowledge and innovation are the basis of economic growth to the exclusion of

everything else, especially because of the neglect of humanistic knowledge. She looks at the crisis of education in the US, Britain and India caused by the race for profitability, and in this setting focuses on humanistic and artistic education, which is thrown into the shade in different educational cycles. In her opinion race for profitability is also connected with the preference for technical and applied education. In her own words:

"Indeed, what we might call the humanistic aspects of science and social science—the imaginative, creative aspect, and the aspect of rigorous critical thought—are also losing ground as nations prefer to pursue short-term profit by the cultivation of the useful and highly applied skills suited to profit-making." (Nussbaum, 2010: 2)

Globally, we are witnessing the identical scenario which varies from country to country depending on its position and preservation strategies in the competitive capitalistic race. Likewise, we hear voices of reason coming from the European continent, namely Austrian philosopher Liessman who is offering a similar argument saying that by exchanging broader educational goals with skills and competencies, signals are sent about dismissal of individual oriented education, the one that is "bringing into question goals that have once motivated classical discourse of education: subject autonomy, suzerainty of the individuum, individual maturity". (ibid, 2020:148)

He is actually referring to a Humboldtian model of all-encompassing education derived from enlightments' and Kantian *sapere aude* motto. Ancient ideals of education also stretch across body-mind-soul development preparing everyone to take its place in the society. For the aforementioned reasons, Liessman is highly critical of leaving such virtuous understanding of education behind next to its' emancipatory mission: "That program ought to prepare a person for developed individuality and to self-conscious participation in a community and its culture. Simultaneously, education was perceived as the only opportunity for people to go across barbarism to civilisation, from immaturity to autonomy." (Liessman, 2020: 126-127).

In other words, if we deprive people of an opportunity to build character, become independent, free-thinking personality, not only academically, but in social awareness, ethical principles and emotional maturity, we are closing our eyes to the predictions of a distressing outcome. The next section gives us a better idea of how our world could or potentially will look like if the problem culminates on the global scale.

Ignorance and "alternative facts" as social problems of knowledge society

Different burning issues of our troubling presence, sometimes also called the "post-truth era" (Keyes, 2004), occupy researchers trying to make sense of the current reality. Some of them seem suitable for our discussion and have attracted considerable academic attention

in the last couple of years. Numerous studies² call into question rise of ignorance, irrational beliefs, anti-science sentiments and spreading of conspiracy theories. In the light of our main argument we could also ask about reasons behind people's susceptibility to fake news or ideological discourses? Or how did we get into "posttruth era" and accept the existence of "alternative facts"?

What is more, how come that our "knowledge based society" is producing such a paradox i.e. how did we get into a situation of being entangled in a puzzle of concurrent existence of science driven societies and acute anti-science sentiment coupled by conspiracy theories growing stronger?

It is beyond the scope of this paper to provide proper answers to these complex questions. Nevertheless, we can still state that this, we shall call it the ultimate social test illustrates a substantial discrepancy between what knowledge and skills are needed to overcome this state of affairs and what is predominantly developed in or outside education systems. Even if we put education institutions aside and dig a little further we discover an interesting prevailing trend of self-reliance in terms of knowledge-skill acquisition enabled by internet based learning. While we generally hold an easy access to knowledge in the highest regard, we find that particular ideological dimension named in the literature as "ikeaization of society" (Salecl 2020, Hartman 2007) deserves a special mention.

In her book "The Passion for ignorance" Salecl (2020) provides several examples of the social expectations which are placed before us with regards to knowledge online availability: "As individuals we are expected to learn how to master a huge number of things in our lives: from organizing a holiday, putting together Ikea furniture, and installing new software on one's phone, to diagnosing our own illnesses and finding the best treatment." (ibid: 25) She believes they are elements of a "do-it-your-self" and "self-made man or women" capitalist ideology that is converting into "an ideal of self-learning." At first glance we might think there is nothing wrong with it, but it is indirectly responsible for generating ignorance as she further explains: "The downside of the Ikeaization of society is the reluctance to admit one's lack of knowledge." (ibidem: 25)

When we compare a typical socratic humble attitude read like "I know nothing" as an ancient ideal with contemporary self-assured modern man or woman we may discover absence of a starting point for wondering, knowledge quest and eventually getting as far as to reach wisdom. In order to learn, we must accept of not knowing something or knowing too little about it to begin with.

² For example: Prasad, A. (2022). Anti-science Misinformation and Conspiracies: COVID-19, Post-truth, and Science & Technology Studies (STS). *Science, Technology and Society*, 27(1), 88–112. <https://doi.org/10.1177/09717218211003413>

Conclusion

To sum up, in our approach aiming to reconceptualise innovation, knowledge and skills from a critical social perspective, we briefly outlined only some aspects of the problems in the knowledge based society. Although our conceptual analysis is not a holistic account, considerable insights have been given into changing nature of knowledge shaped by the applicability and economic results ruling. We identified different trends, interestingly appearing to us as pressing demands of the underlying neoliberal background ideology: "you ought to know", "it's up to you" "do it yourself" "reach your potential" "from zero to hero" "know how" "learn by doing", "hands on", "knowledge in action" to name a few. Humanistic sciences or knowledge in its classic understanding is perceived as obsolete and outdated for the top level preparation and equipping of future labour force with applicable, that is, practical ready-to-be-commodified knowledge whilst turning students into ready-to-be-used human capital.

On the top of that, even at the level of skills, we are missing to comprehend a vital role of critical thinking, creativity and imagination not only for innovators, but all individuals aiming to develop understanding of the changing world or a fashionable growth-mind set as a critical precondition for personal well being and cognitive resistance to myths, persuasive manipulations and propaganda. Taken together, our findings indicate an evident mismatch between what we are expected to learn in our education programs under imperatives of production i.e. compliance to the innovation markets' demands and the necessary knowledge needed for solving problems of ignorance, irrational beliefs or distrust in science notably on rise in the actual world. We hope that this analysis encourages readers to reflect on processes that are often presented as inevitable, no matter the costs. Mixing up means with ends and using criteria of immediate results for long term broader educational goals might further erode universal human values. With that in mind it concerns us all and is certainly worth thinking about.

Bibliography

Bauman, Zygmunt (2009) *Postmoderna etika* (Postmodern Ethic), AGM, Zagreb.

Giddens, Anthony (1991) *The Consequences of Modernity*. Polity Press. Oxford.

Ibrulj, Nijaz (2005). "Društvo jedne dimenzije" (One Dimensional Society). *Pregled: časopis Za društvena Pitanja / Periodical for Social Issues*, 1(1-2), 87–106

Ibrulj, Nijaz (2005) *Stoljeće rearanžiranja eseji o identitetu, znanju i društvu* (The Century of Rearrangement - essays on identity, knowledge and society) Filozofsko društvo Theoria, Sarajevo

Katunarić Vjeran, (2000) *Castellsova panorama nove društvene epohe* (Castells Panorama of a New Social Epoch) in: Castells, Manuel "Informacijsko doba: Ekonomija, društvo i kultura: Uspon umreženog društva) Golden marketing, Zagreb. (p.9-33)

Keyes, Ralph (2004) *The Post-Truth Era: Dishonesty and Deception in Contemporary Life*, St. Martin's Press, New York.

Liessman, Konrad Paul (2009) *Teorija neobrazovanosti: zablude društva znanja*, (Theorie der Unbildung) Jesenski i Turk, Zagreb.

Liessman, Konrad Paul (2020) *Obrazovanje, poluobrazovanje, neobrazovanje* (Bildung, Halbbildung, Unbuilding) in: Cvejić&Krstić (ed) *Od obrazovanja do neobrazovanja*, Akademska knjiga, Novi Sad.

Nussbaum, Martha (2010) *Not for profit - Why democracy needs humanities?* Princeton University Press, New Jersey& Oxfordshire.

Prasad, Amit (2022). *Anti-science Misinformation and Conspiracies: COVID–19, Post-truth, and Science & Technology Studies (STS)*. *Science, Technology and Society*, 27(1), 88–112.

Ritzer, George (1993). *The McDonaldization of Society: An Investigation into the Changing Character of Contemporary Social Life*. Pine Forge Press.

Salecl, Renata (2020) *A Passion for Ignorance: What We Choose Not to Know and Why*, Princeton University Press, New Jersey& Oxfordshire. Stehr Nico, Adolf Marian and Mast L Jason, (2013) *Knowledge Society, Knowledge-Based Economy, and Innovation* in: Carayannis (ed.) *Encyclopedia of Creativity, Invention, Innovation and Entrepreneurship*, Springer (1186-1187)

Touraine, Alain, (1980) *Postindustrijsko društvo* (Postindustrial society 1971), Globus, Zagreb.