Participatory methods for information society

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Abstract. The paper provides introductory remarks to the special issue of *Public Philosophy and Democratic Education* dedicated to the role of participatory methods in contemporary informational society. The authors posit that in relation to classical definitions of knowledge economy, which treat knowledge as a fundamental factor of production leading to innovations in products and services, one can also acknowledge the democratizing of the innovation (technical, social, or institutional) due to increased participation of society in the process. The authors refer to information technologies which enable citizens' participation in urban governance. They also emphasize the role of participatory-foresight methods in creating public policy based on long-term citizens-driven visions of social and economic development.

Keywords: knowledge society, knowledge economy, post-industrial society, knowledge work, participatory foresight, urban governance, innovation

In 2015 roughly 84% of the market value of top five hundred US companies consisted of intangible assets such as patents, copyrights, trademarks, or software. Yet comparatively, in 1975 intangible assets accounted for barely 17% of that value. This difference of almost 70% in forty years is the evidence of the rise of knowledge economy.

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In terms of economic theory, as proffered by Peter F. Drucker in his profound study *The Landmarks of Tomorrow* (1957), the above-mentioned state of affairs is explained with reference to the fact that various types of knowledge are "becoming the real *factors of production*; *land*, *labour* and *capital*, the three factors of production of traditional economics, are increasingly becoming merely limitations on the effectiveness of knowledge" (p. 62). In similar spirit Daniel Bell (1976) argues that the post-industrial society holds to services and information; society is informational when vast share of the workforce is involved in production of such intangible value. As stated by Jean-François Lyotard (1984), in the post-industrial age knowledge became the leading "force of production". The production in the era of "cognitive capitalism" is nothing but "knowledge work", a continuous process of application of knowledge acquired through formal education to develop and introduce new product and services to the market place (Drucker, 1993). The competitiveness of both industries and individuals depends on the access to networks, intellectual capital, and technology (Castells, 1996).

This special issue of *Public Philosophy and Democratic Education* tackles the question of the role of information exchange and knowledge creation in contemporary societies on technological, cognitive, social, and policy level. The paper put forward by Cătălin Mamali (*Homo Sapiens, Homo Faber and Homo Dictyous. Creatively united by computing science*) gives an insight into how the post-war developments of information technology eventuated in the rise of network society or, in other words, how computing science contributed to the development of a more efficient, creative and comprehensive connectivity due to which human as *zoon politikon* (social being) became *homo dictyous* (networking human). The capability to act within the social networks has been addressed from the perspective of cognitive science by Maciej Błaszak (*Cognitive dimensions of public space*) as well as investigated with regard to competencies essential for knowledge application and social participation, including social and digital skills, which remain the subject covered by Karolina Kowalewska (*Competency paradigm for educational practice. Fostering key competencies for socio-economic development*).

Apart from the transformation of economic landscape, Lyotard (1984) believes, knowledge undergoes a process of commoditization and reaches social structures hitherto excluded from interactions with academia and expert cultures. In result, the foundations legitimizing social order erode. Nonetheless, the decline of Lyotardian "grand narratives" of modernity, weakening of authorities, and plurality of values do not leave postmodern societies in a meaningless void but challenges them with the burden of responsibility to participate in the democratic process. Mariusz Czepczyński (*Challenges of participatory-deliberative governance in the era of social media digitalisation*) reminds that the term "participatory democracy" has been coined precisely in the context of "responsibility", as developed by Arnold S. Kaufman (1960). Czepczyński shows further how contemporary information technologies, especially social media, pave the way for wide participation of citizens in urban governance, on the one hand, and threaten the reliability of democratic decision-process due to superficiality and anonymity of digital communities, on the other.

When post-modern, information age urban citizenship abandons top-down "government" scheme and aims for de-centralized, inclusive models of "governance", as Gudrun Haindlmaier argues (*Participation and urban policy-making in a network society – a theoretical outline on new urban governance*), the common exchange of information and indirect impacting on strategic decisions have their drawbacks and benefits. The eminent benefit is the possibility to embrace insights, experience, and knowledge of citizens and apply them within the process of learning. Citizens as end users of urban space do not only take part in decision-making process itself but also in the bottom-up policy development, as shown in the interesting case studies of participatory spatial planning project (Patrycja Grzyś, *The use of Geographic Information Systems in the participatory management of a big city. Case study of Gdynia*) or development of regional energy policies (Stefano Faberi, *Stakeholders' participation in regional energy planning processes. Case study from RES H/C SPREAD project*).

Nonetheless, in order to take advantage of the potential hidden in the collective knowledge of citizens and to ensure

balance between stakeholders' values and scientific expertise, contemporary research within social epistemology or knowledge management seek for model solutions for the responsible participatory management. It seems, therefore, that the challenge experienced by "information society" is the need for institutions, procedures, and *methods* that would help to coordinate and facilitate participatory process, i.e. combine different types of knowledge, find consensus between common sense and expertise, and release synergies of bottom-up and top-down approaches to governance and planning.

In the case of planning, since long-term future cannot be predicted, the only responsible action towards the future is *making it happen the right way*, using the best available knowledge and involving relevant stakeholders. In this context Doris Wilhelmer (*Society in need of transformation. Citizen-Foresight as a method to co-create urban future*) discusses "participatory citizen-foresight" method due to which citizens, experts, and civil servants can take part in mutual learning and jointly co-create urban reality. Nowadays, such forward-looking approach remains an essential measure in shaping European policies: the researchers from the Institute of Technology Assessment of Austrian Academy of Sciences, contributing to this volume, offer an insight into comprehensive frameworks and methodologies of participatory forward-looking and their practical applications. For example, Mahshid Sotoudeh and Niklas Gudowsky show how the CIVISTI method helps to streamline a multi-perspective citizens' demand and contributes to policy-making in the field of science, technology, and innovation (*CIVISTI – A forward-looking method based on citizens' visions*). As an extension of CIVISTI method, Niklas Gudowsky, Mahshid Sotoudeh, Ulrike Bechtold and Walter Peissl introduce the CIMULACT project in which a methodology for multi-actor consultations was proposed in order to outline the vision and identify the challenges for European and member states level research and innovation roadmaps (*Contributing to European vision of democratic education by engaging multiple actors in shaping responsible research agendas*).

The implementation of participatory methods in urban governance, as well as participatory foresight applied

to prepare public research agendas indicate that knowledge creation process is not only the economic driver but the very foundation of social structure. Hence, contemporary understanding of knowledge and information society, goes far beyond Drucker's "knowledge economy" and Bell's "informational society" where professionals, experts, and academics blessed the laymen with knowledge and innovations. Today, it is more accurate to speak of "democratizing of the innovation" (Von Hippel, 2005), where a broad spectrum of stakeholders engages in the process of creating technological, social, or institutional innovations; this contributes to more complete but, at the same time, more complex image of the systems in which innovations are developed as put forward by Mateusz Bonecki (*Open innovation model within public research and innovation programmes*). Nonaka and Takeuchi (1995), while stating that "everyone is a knowledge worker", allude to the fact that the role of the knowledge worker is not fulfilled by a group of specialists working in hermetic R&D departments but by all workers of innovative organization, whose joint and orchestrated effort concurs to knowledge-driven success of the company (Nonaka & Takeuchi, 1995). On the level of social systems as such, by virtue of the more common participatory methods, the sentence "everyone is a knowledge worker" expresses inclusive and democratic claim that relevant collective knowledge should be heard, processed, understood and applied within and infinite-iterative process of urban, regional, national and, eventually, also civilizational learning.

Acknowledgement

of RUGGEDISED project is to employ participatory fore-sight methods to develop long-term visions and mid-term innovation roadmaps for deployment of smart city solutions.

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