Technological Forecasting & Social Change xxx (2015) xxx–xxx

Contents lists available at ScienceDirect

Technological Forecasting & Social Change

Participatory foresight for social innovation. FLUX-3D method (Forward Looking User Experience), a tool for evaluating innovations

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ARTICLE INFO

Article history:
Received 15 January 2014
Received in revised form 20 May 2015
Accepted 21 June 2015
Available online xxxx

Keywords:
Participatory foresight
Users' experience
Innovation culture
Design thinking
Change management

ABSTRACT

The new socio-technological paradigm based on global access, constant change, immediacy and social networking is forcing organizations to be more empathetic with their stakeholders by adopting a "human centered approach." This change implies a need to look for new more flexible, creative and participatory ways to approach future research.

The concept of social innovation becomes highly relevant in this context, since it means understanding innovation as a culture: an essential part of the value code and the collective identity of a society and/or human organization. This concept implies a holistic, creative and democratic way to approach innovation, traditionally associated with science and technology and future thinking.5

FLUX-3D is a tool designed to assess innovative proposals (ideas, products, processes or services) according to users' experience. Thanks to its simplicity, together with the fact that it is systematic and based on tridimensional cube-shaped graphic representations, FLUX-3D provides key information about users' satisfaction – with regard to their expectations – immediately and at first sight, on three different levels of analysis (dimensions, indicators, variables), and in a very accessible as well as intuitive way. It can additionally provide real time feedback which is helpful both for short-, medium- and long-term decision-making because of its participatory and open nature.

1. Introduction

> "We should try to be the parents of our future rather than the offspring of our past"
>
> [Miguel de Unamuno]

The preceding quotation from Unamuno must be taken as what it really is: a declaration of principles based on the conviction that the future does not necessarily have to be a mere extrapolation of the past (i.e. of the conviction that emancipation from historical inertias is possible), as well as on the vision of the latter as a space of opportunities for progress still to be constructed.

A recurrent problem and a starting point when it comes to talking about foresight – and one which poses a considerable challenge for anyone who has to deal with it – lies in differentiating this way to approach future from others which, despite sharing the same purpose ("announcing something that will have to happen through revelation, science or conjecture", according to the *RAE* — Spanish Royal Language Academy (Real Academia Española, 2001), differ radically from it both in terms of the methods used and with regard to the underlying philosophies on which they are supported.

The classification in types of science made by Jurgen Habermas already inspired us to deal with this differentiation a few years ago (Bas, 1999, 2012). We believe that it was essential to distinguish all the different ways of looking into the future which form part of future studies (Masini, 1993), drawing a

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http://dx.doi.org/10.1016/j.techfore.2015.06.016
0040-1625/

distinction between the technical side (*forecasting*) and the emancipatory one (*foresight*).

The aforesaid distinction between these two ways to approach the scientific study of future becomes crucial to understand some of the concepts developed throughout this paper, such as: proactivity (as opposed to preactivity); structuralism (as opposed to determinism); or innovation culture (as opposed to innovation management). All these concepts are of paramount importance not only to understand what foresight is all about but also to identify the way in which it is related to innovation.

As will be shown on the following pages, foresight basically differs from forecasting in: (a) the rejection of determinism, which implies a vision of future as a multiple and constructible space; and (b) the encouragement of a proactivity (normative action understood as an innovation and not as a reaction or adaptation to change) which entails the recognition of an ability to 'appropriate' the future emancipating oneself from the supposed natural (or supernatural) laws which might predetermine the path towards that future.

1.1. Proactivity and strategic thinking

Foresight is inextricably linked to change management (Bishop and Hines, 2007), both in its origin and in its conceptualization, as well as in its instrumental vocation. It is arguably a tool meant to identify the future options available to an organization, group or community, by virtue of its own nature and characteristics (endogenous factors) and also of those elements which affect the future despite being alien to it (exogenous factors). The combined analysis of both factors (diagnosis) along with the projection of that analysis "towards the future" in terms of probability and desirability (forecast) is what allows foresight – because of its emancipatory nature – to define options, evaluating them by means of a contrast with our own mission and vision and, on that basis, to manage change through the design of strategic action (normative) lines which permit to reach a desired future insofar as possible; hence its proactive nature.

The review of some classical works dedicated to futures studies (Bishop and Hines, 2007; Bell, 1997; Meadows et al., 1972; Bas and Guillo, 2013, among others) makes it clear that the latter is no more – nor less – than a product of its time, and that its appearance and later developments (on an epistemological, methodological, conceptual and application-related level) show strong links with change management and uncertainty; in other words, with strategic thinking. Another objectively verifiable result stemming from that review is that it has been precisely at historical moments characterized by a high degree of uncertainty when strategic thinking has developed to a greater extent. Paradoxically, more attention has been paid to – medium- and long-term – thinking "towards the future" within contexts of crisis and structural change that required – short-term – urgent measures than in contexts of structural stability and monitored uncertainty (Wallerstein, 1998; Drucker, 1980) where strategic thinking has traditionally been reviled.

It is thus not by chance that the early quantitative prediction models – proposed by David Ricardo – regarded as the origin of systematic future forecast in economics (Bas, 1999) originated immediately after the 1929 Stock Market Crash, which put the incipient financial capitalism on the ropes. That historical event made analysts, politicians and businessmen realize that, if the goal was to keep the system afloat, the adoption of urgent decisions to cope with problems in the short term would have to be inevitably accompanied by foresight mechanisms which permitted to anticipate the possibility of changes or emergent events which might be relevant to the evolution of economy. In other words, a tactical initiative could only be efficient if it was integrated into a consistent strategic vision.

This meant the beginning of the end for reactivity (action as reaction) as a valid formula to aspire to efficient management, and it favored a re-thinking of the way to approach the management of organizations which led first to preactivity (action as foresight) and then to proactivity (action as innovation) as reference formulas in the search for excellence, and even survival, within environments of change and complexity that presented high uncertainty levels (Godet, 1993). Furthermore, these we believe developments ultimately linked strategic thinking to innovation: the need to think on alternative futures in order to prevent dangers forced economists to identify opportunities as well, because uncertainty gathers both dangers and opportunities inside it — as if they were a kind of yin and yang.

Neither is it by chance that foresight consolidated as a management tool during the 1950s under the RAND Corporation's leadership and, more precisely, in the field of security. Free from the ties of determinist thinking which had dominated the scientific–academic environment until then and spurred on by the need to identify and evaluate potential future events in order to avoid a nuclear conflict, the analysts and experts belonging to that think tank developed a heterodox, multidisciplinary and imaginative methodological corpus which did not seek to isolate uncertainty but to battle against it; which integrated qualitative parameters and did not renounce value judgments and the subjective nature associated with the analysis of social reality. The aims were to understand and anticipate events in order to obtain references that would enable us to design the best possible future and subsequently, to behave proactively and accordingly. Therefore, the purpose sought was not to carry out a scientific self-affirmation exercise but to solve emergent problems and create opportunities so that a plausible and desirable future could be reached (Bas, 2004).

The adoption of numerous techniques developed inside the RAND Corporation (Delphi method, scenarios, etc.) by multinationals such as the Shell Corporation before the ineffectiveness and lack of results shown by quantitative prediction models during the oil crisis of the late 1970s meant a radical change in the way to deal with future forecast within the context of economy (Schwartz, 1991). This change was almost immediately transferred to technological forecast, the environmental forecast and, more broadly, to the overall management of public administrations throughout the following decades.

It also implied the consolidation of strategic thinking, which in turn meant overcoming the preactive model (action as foresight) (Godet, 1993) which underlay the quantitative prediction models that had dominated the scene until the 1970s. This preactive model was based on a positivist conception of the future linked to a Newtonian vision of science which only and exclusively attributes predictive capacity to predetermined – and therefore already known – causal relationships. According to this, in the preactive model

Please cite this article as: Bas, E., Guillo, M., Participatory foresight for social innovation. FLUX-3D method (Forward Looking User Experience),..., Technol. Forecast. Soc. Change (2015), http://dx.doi.org/10.1016/j.techfore.2015.06.016