



ELSEVIER



Available online at www.sciencedirect.com



Technological Forecasting & Social Change 74 (2007) 1179–1203

**Technological
Forecasting and
Social Change**

Grasping the potential of online social networks for foresight[☆]

Romina Cachia, Ramón Compañó, Olivier Da Costa^{*}

*European Commission, Joint Research Centre/Institute for Prospective and Technological Studies,
Edificio Expo/Calle Inca Garcilaso s/n, E-41092 Sevilla, Spain*

Received 21 February 2007; received in revised form 28 May 2007; accepted 31 May 2007

Abstract

Online Social Networks (OSNs) have gained unprecedented popularity in recent years. OSNs facilitate the interaction among members by providing a dynamic/multimodal platform which enables discussions, sharing of multimedia content, organisation of events, etc. These networks comprise millions of members from all continents and from all age groups — although the younger generation is more prominent. OSN dynamics and inherent patterns of operation are being investigated by academia as a means of studying, for instance, ICT-enhanced social change. Industry uses them to detect new commercial trends and establish marketing strategies.

We believe that the huge size of OSNs, the broad and versatile thematic topics and the fact that most users are youngsters made these new modalities of large-scale interaction also worth investigating in regard to the study of the future or foresight. In this paper, we discuss the relevance of OSNs for three objectives of foresight methods, namely creativity, expertise and collective intelligence.

First, we argue that OSNs can be regarded as a tool to enhance creativity through the unprecedented modalities of communication and interaction they offer.

Second, we propose OSNs as an expert tool to detect emerging changes in social behaviour. We assume that the recorded exchanges of information and thoughts between participants in forums offers an under-exploited source of information for detecting new social trends. The value of this information may be amplified by evaluating it in conjunction with other OSN data, such as member profiles, behavioural patterns or list of contacts or friends. In this way, emerging social trends could be detected. Similar approaches are already used in market research and could be transferred to foresight.

Third, we consider OSNs to be a means of aligning individual thinking and fostering collective or “collaborative” intelligence for a whole range of possible goals in the future.

[☆] The views expressed in this article are those of the authors and do not necessarily reflect the official European Commission view on the subject.

^{*} Corresponding author.

E-mail address: olivier.dacosta@m4x.org (O. Da Costa).

For each of these three objectives, the theoretical foundations are complemented with some case studies. Given the novelty of the OSN phenomenon and its unexplored potential in many fields, the authors aim to trigger thinking and discussion on the potential application of this emerging phenomenon within foresight, rather than to offer a vademecum on the use of OSNs for foresight activities.

© 2007 Elsevier Inc. All rights reserved.

Keywords: Online Social Networks; Foresight; Emerging change; Weak signals; Collective intelligence

1. Introduction to foresight

The drive to discover the future is as ancient as humanity. Certainly, attitudes towards the future have changed through time and do so increasingly in the wake of new challenges, dangers and shifts in values. In the XIXth and early XXth century, science and technology were considered to be the major drivers of change. Looking into the future mostly consisted of anticipating forthcoming technological developments and most contributions were in the realm of “science fiction”. Jules Verne and H.G. Wells¹ were among the most acclaimed authors in this field.

During and after the Second World War, it became commonly accepted that the long-term status and welfare of a nation would depend largely on its advancement in science and technology [1]. As a result, governments started to devote more importance to the future of technology. Foresight became clearly separated from science fiction and became institutionalized, the creation of the RAND Corporation by the US Forces in 1946 being one of the milestones. At that time, the focus of foresight was still almost exclusively on scientific and technological issues. In fact, technology forecasting, associated with a deterministic future perspective, was still the predominant terminology for the field until the 1980s, when “technology foresight” emerged. The technological experts and some professional futurologists were the main, if not the only, contributors to the field.

Gradually, foresight widened its scope when it became commonly accepted that the future was not only, or even primarily, determined by technological factors. For instance, the energy crises of the 1970s and 1980s were due to political rather than technological factors and had major economic and geopolitical consequences. However, they had not been foreseen by the foresight community. In the following “second generation” of Foresight, the emphasis was no longer on technology and innovation alone, but shifted towards trying to understand the trends and drivers of market(s) and economics [2]. The key actors in this second generation were from both academia and industry, complemented by professionals able to bridge the gap between the two.

In the 1990s and 2000s, policy makers acknowledged that the development of new technologies was also highly conditioned by political, societal, psychological and cultural factors, such as concern for the environment, or an individual’s ability to understand the technology. Accordingly, this “third generation” of foresight acknowledged social determinants and behaviour as major drivers of change. In addition to the actors from academia and industry, social stakeholders such as non-profit organisations, consumer groups, lobbyists and government representatives were, and still are, regular participants in the foresight process on issues such as health, safety or environment [2].

Nowadays, Foresight as defined by APEC² refers to “systematic attempts to look into the future of science, technology, society and the economy, and their interactions, in order to promote social,

¹ Wells was the first one to use “foresight” to refer to studies of the future in a 1930s BBC broadcast.

² Centre for Technological Foresight (www.apecforesight.org/).

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات