



# The strategic prototype “crime-sourcing” and the science/science fiction behind it



Gary Graham<sup>a</sup>, Rashid Mehmood<sup>b,\*</sup>

<sup>a</sup> School of Business, University of Leeds, Leeds, LS2 9JT, UK

<sup>b</sup> College of Computer Science, King Khalid University, Abha, Saudi Arabia

## ARTICLE INFO

### Article history:

Received 8 January 2013  
 Received in revised form 9 October 2013  
 Accepted 16 October 2013  
 Available online 7 December 2013

### Keywords:

Crowdsourcing  
 Technological forecasting  
 Social change  
 Crime-sourcing  
 Business models  
 Big data

## ABSTRACT

Science fiction prototyping (SFP) and crowdsourcing are among a range of promising methodologies that are set to transform all spheres of human landscape be it science, business or social. This paper exploits the SFP and crowdsourcing methodologies and presents “crime-sourcing”, a prototype designed to explore futuristic crowdsourcing ideas. Its purpose is to provide a fictional scenario that speculates how crowdsourcing could be blended with future technology to develop a “crime-to-conviction” model. This scenario takes the cyber-space concept of crowdsourcing and then transfers it to a hybrid cyber/physical business model context. The story aligns itself with Zuckerman’s doctrine that while there is human tendency to “flock together” in crowds, most of our social ties, online or offline, are only with a small set of people with whom we have much in common. The paper concludes with a discussion on contribution of this paper to crowdsourcing theory and the challenges that need to be overcome if prototyping is to become an established foresight methodology.

© 2013 Elsevier Inc. All rights reserved.

## 1. Introduction

Predicting distant futures is always problematic as unforeseen disruptions can come along and dramatically change the technological and innovation landscape. Linear, rational forecasting techniques for instance, failed to identify the dramatic rise of cell phones or social media [8]. Fictional prototyping seeks to complement such techniques by exploring a series of alternative futures through the techniques of fiction and drama. The technique prototypes objects and devices being currently developed in the “real world” to see how they might be utilised or how people might respond to new designs, tools or scenarios [1,2].

Fictional prototyping attempts to reveal something about the future, however the users of any prototype or piece of speculative design are the users of today, not tomorrow, so

the developer’s assumptions and conventions are those of the present [1]. This is a difficult challenge, and one that even the greatest SF writers have struggled with. How can you imagine characters whose attitudes and emotions are being shaped in an entirely different social and technological environment?

In *A Scanner Darkly*, Philip K Dick describes a future world in which Los Angeles and its wider conurbation have expanded to take up much of California, in which police agents are able to use special camouflage suits to disguise their identities, and in which “mega corporations” create new and highly toxic drugs. In many ways it’s a plausible scenario. But the characters in *A Scanner Darkly*, through their speech, their attitudes and their behaviour, are drawn from a very recognisable 1960s counter-culture. The book is an often cited masterpiece for all sorts of reasons, one of which is the very accuracy with which the author depicts that particular community [10]. But what even Dick can’t do is give us characters from the future. Instead what he creates is a parallel universe in which characters that we instantly recognise and empathise with are pitched into a scenario and a location that is unfamiliar.

\* Corresponding author. Professor of Networked Information Systems Head of Research, College of Computer Science King Khalid University Abha, Saudi Arabia. Tel (Office): + 966 17 241 9180.

E-mail addresses: [g.graham@leeds.ac.uk](mailto:g.graham@leeds.ac.uk) (G. Graham), [R.Mehmood@gmail.com](mailto:R.Mehmood@gmail.com) (R. Mehmood).

The focus of our prototype 'Crime-sourcing' is *Murder Hunt* a crowdsourcing site that aims to provide clear information about homicides and the tools necessary to record, report and then go about capturing the murderer. It is an imaginative prototype based upon facts with the purpose of discovering a new innovative path and investigates possibilities that we would not have imagined if we hadn't presented them in a fictional setting [2]. The purpose of this paper therefore is to 'test' the future, to see what future technologies or crowdsourcing systems might work, and how they might be received and what their impact might be.

In the next section we review the distinction between 'hard' and 'soft' SF, before critically interrogating its association with fictional prototyping. Section three evaluates the procedural challenges of the prototyping methodology. In Section four we present the creative prototype 'Crime-sourcing'. Finally, in the conclusion we analyse both the contribution of this technique to crowdsourcing theory and the implications for establishing prototyping as a forecasting methodology.

## 2. Literature review: establishing links between SF and fictional prototyping

Fig. 1 presents the science fiction constructs underpinning prototype development. In the late 1960s an entire sub-genre of science fiction sprang up around writers that aligned themselves closely with the "hard sciences" (e.g. computer science, astronomy, physics, chemistry). 'Hard' SF writers [12–15] ground their work in the cutting edge of science and technology (albeit with varying degrees of artistic license). American science fiction author Wysocki [9] defines this as follows: "Hard SF is the form of imaginative<sup>1</sup> literature that uses either established or carefully extrapolated science as its backbone." Many critics [7] see hard SF as the only true science fiction because it is based on real science as opposed to "soft SF", which is based on the 'soft' sciences, and in particular, the social sciences (anthropology, sociology, psychology, political science) [11]. For instance, Ursula Le Guin's work often depicts futuristic or imaginary alternative worlds in politics, natural environment, gender, religion, sexuality and ethnography with no direct link to scientific speculation [24,25].

Fictional prototyping is a recent spin-off of the 'hard' science fiction genre but which has more recently evolved to incorporate the imagined 'soft' science worlds of writers like Bruce Sterling, William Gibson, J.G. Ballard and others. Prototypes set out to do many of the same things as SF does, but in a more concrete way, by introducing real physical objects or real sets of rules and scenarios which require the participation (direct or indirect, voluntary or involuntary) of users, beyond just their emotional and intellectual engagement.

In this way fictional prototyping can 'test' objects or tools or storylines. Science Fiction has (in general) been a fixed text until very recently, and though while readers have enjoyed many different readings and interpretations, the author has not been able to adapt or react to their responses. Fictional prototyping further allows the inventor or storytellers, to adapt scenarios as they evolve and as the users or participants give their reactions.

However the design of a prototype is challenging as they require the developer to be both a scientific and technological expert and also to be able to write compelling fiction.

## 3. Emerging methodology of science fiction prototyping

### 3.1. Theoretical underpinning

Experimentation as a form of problem-solving is fundamental to business model innovation [3,5,10], it consists of trial and error directed by a critical amount of insight as to the direction in which a solution might lie. According to Leonard-Barton [27] experimentation generates new kinds of organizational capabilities. The fictional prototype uses imaginative narratives based explicitly on science fact as a design tool in the development of future technology trajectories [5]. This emerging methodology largely focuses on the social, economic and ethical influences of future technology. Prototypes can be taken as indicators of design paths in the on-going search process of an industry [28].

### 3.2. Procedural complexity

This diagram below presents some of the invisible entities that surround the prototyping framework contributing to its procedural complexity (refer to Fig. 2).

People are narrative thinkers; they naturally organize their world into stories, and understand when a story makes sense, and when it does not [1]. By combining realistic characters and social milieus with novel technology, science fiction can engage multiple ways of thinking, and draw out underlying values and sites of conflict and confusion. However the envisioning process is complex and depends on the information you have access to: what you know about science and technology, your own life experiences and beliefs, and any related materials provided by the SF community. Pitching and dialog are definitely learned skills, and different people have very different levels of aptitude at them. For instance, it is a difficult technical skill to express and write a concise short story [4,6].

The ability of the developer ultimately relies on tacit knowledge about science, technology, people, institutions, narrative structures, the creative process, and proper presenting and critiquing skills. The problem with relying on tacit knowledge for foresight is that your visions are going to be infected with unexamined biases, and may confirm what you want to know rather than challenge and transform your vision of the future [2]. The main check against such bias is the scientific expertise of the other participants (for instance, reviewers, colleagues, co-authors and science fiction writers) involved in the prototype development process who can check the validity of the original scientific principles under examination.

## 4. The "crime-sourcing" prototype

### 4.1. The science behind the SFP "crime-sourcing"

Jeff Howe, coined the term 'crowdsourcing', in 2005, after conversations about how businesses were using the Internet to outsource work to individuals. Howe and Robinson referred to the phenomenon as like "outsourcing to the crowd," which

<sup>1</sup> p. 9.

Download English Version:

<https://daneshyari.com/en/article/7257347>

Download Persian Version:

<https://daneshyari.com/article/7257347>

[Daneshyari.com](https://daneshyari.com)