ORIGINAL ARTICLE

Futures, communication and social innovation: using participatory foresight and social media platforms as tools for evaluating images of the future among young people

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Abstract As many futurists have argued, images of the future have a crucial role to play in societal development. At an individual level, the understanding of people's hopes, fears and expectations becomes important not only to determine how we look at the future but also to understand our present actions. At a collective level, sharing these images and understanding our role within the community is also essential for the development of a shared vision about the future. Young people stand out as one of main players in this task of building the society of the future, which is why investigating their images of the future should have highly significant implications. The present paper shows the results of a comparative pilot study about the images of the future found among youngsters from 2 different European countries: Spain and Finland. The survey—which involved two groups of university students from the aforesaid countries—has as its main aim to look into the identified cultural values and message sources that can influence the way in which we look at the (expected and desired) future. The importance of this project, which was developed using the web platform www.F212.org—a pilot project funded by FECYT (Spanish initials for Spanish Foundation for Science and Technology)—stems from the idea that the communication and exchange of information about images of the future through social networks will empower new generations to cope with the challenge of building a desired future.

Keywords Images of the future · Open innovation · Participatory foresight · Social innovation · Creativity · Social media

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Introduction and background

The study about images of the future dates back to the second half of the twentieth century and has its origins in the fields of sociology [1] and psychology [2–4]. A growing interest in this area arose during the early 1990s [5-7] and, during the late 1990s and the first years of the twenty-first century, the study about images of the future—and more specifically about images of the future among young people—has consolidated within the framework of social sciences in general and, particularly, in the context of Sociology [8–27, amongst others].

According to Polak's definition, "an image of the future is made of associated memories and expectations. It is a set of long-range goals which stress the infinite possibilities open to a person. Thus, an image of the future can be defined as a mental construction dealing with possible states. It is composed of a mixture of conceptions, beliefs, and desires, as well as observations and knowledge about the present. This affects a person's choice both consciously and unconsciously and is derived from both reality and from imagination. Ultimately it steers one's decision-making and actions [9]."

Therefore, reflecting on the expected impact of these images on the determination of our present actions and our attitude towards the future allows us to see the need for a systematic approach to study such images. As Bell argued, "any adequate theory of modern society must include people as active, purposeful, and innovative beings whose futureoriented behaviour helps create not only their own future but also the social order itself [16]."

Nevertheless, the research on those images carried out during the last century tended to be relatively sporadic and never had a preeminent role within future research [12]. A number of authors actually saw this as resulting from the lack of a terminological consensus: "The image of the future, of course, is a central concept of futures studies. Although the terminology may vary, it can be found in most futurist works [16]."



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As suggested above, the scope changed during the late 1990s and the beginning of the twenty-first century, when the research on images of the future started to raise growing interest in countries such as Finland, Australia, the UK, Japan or Hungary. In this respect, Finland stands out as one of the most active countries regarding futures research and, more precisely, the study about images of the future. "The images of the future of young Finnish people"—a pioneering study within the national context of Finland, and one of the main references for our study—was published by Anita Rubin in 1998.

The review of the previous research carried out in Spain additionally showed us that the study about images of future had been firstly addressed in the book edited by JF Tezanos in 1997 [15]. However, no sustained scientific production could be found in this field; only a few precedents partially dedicated to assess young people's future expectations. Worthy of mention is the work carried out by Tezanos [15, 28, 29] which focused on the analysis of current trends in the lifestyles of young people and their expectations about probable futures. Thus, the tradition in Spain has been completely dominated by a descriptive approach revolving around young people's expectations. In this respect, the project presented here (funded by FECYT—Spanish Foundation for Science and Technology) can be described as pioneering within the Spanish context.

It can be stated at this point that there is a long and prolific tradition—internationally—of studying the images of the future among young people within social sciences (from Ethno-Anthropology to Sociology or Psychology). As far as Sociology in particular is concerned, many works which attempt to identify and explain young people's concerns seek to answer the following question: *how do young people expect their future to be?* [15, 28, 29].

However, it is far from easy to find studies where the approach consists in trying to answer the question: what do young people want for their future? Therefore, there is arguably a lack of new approaches which can integrate aspirational parameters and enable a greater involvement of youths in the process of defining future alternatives.

In this sense, there is apparently a growing interest among public and private institutions to identify and understand citizens' expectations and wishes, which has led both types of institutions to promote actions in line with the new paradigms of *Social Innovation* and *Open Innovation* [30] that provide a more active, direct and continuous citizenship in governance, close to the concept of participatory democracy. In fact, this is something which seems much more feasible today than even five years ago, thanks to aspects such as technology development, the spreading of internet access, and the increasing popularity of social online networks.

One of the most outstanding study references which follow this participatory and aspirational approach is *United Dreams* of *Europe*, a research project developed by the FFS-Foundation for Futures Studies (Hamburg, Germany) [31]. This project—based on the paradigms of *Social Innovation* and *Open Innovation*—used online forms with open questions, integrating heterodox groups (researchers, members of European Parliament, students, etc....) and the utilisation of an online platform (Web 2.0) as the basis for its implementation.

Therefore it is perfectly feasible to complement a descriptive approach for the 'future diagnostic' with images of the future and creative proposals directly defined and developed by young people, giving voice and prominence to them thanks to:

- 1) the proliferation of communication channels that allow for immediate and continuous feedback (2.0 platforms, social networks) with the user/citizen; and
- 2) the development of 'participatory' foresight methodologies in both institutional and private sectors.

The conceptual basis behind this approach leads participants to consider themselves as key actors in the task of defining their own future—through an active participation in the construction of shared images of the future. It could consequently prove much more motivating for young people to interact within these processes if participants are given some space to interact, share and create.

Materials and methods

A total of 56 university students (from 20 to 29 years old) took part in this study: 29 students—17 females, 12 males—from the Haaga Helia University of Applied Science (Helsinki, Finland) and 27 students—15 females, 12 males—from the University of Alicante (Alicante, Spain)—. The process with the students took place during November 2011 in two different phases.

The first one was a futures workshop held simultaneously at both universities. The platform, as well as a number of key concepts (like future vision, proactivity, etc.), was introduced to the students during these workshops for the purpose of helping them face the challenge of thinking about the future. As Ono argued, a face-to-face workshop has turned out to be a very good way to ensure that participants fully understand the questions about the future, the aims of the project, etc. [23].

The second phase was an online survey (embedded in the social platform www.f212.org) divided into 5 thematic groups, which correspond to sociological categories used in previous works about the development of the Delphi method [32]. Below can be found those 5 categories (reformulated from PEST analysis):

 Economy: it includes topics about business, companies, commerce, financing, industry, labour market, consumption, production, logistics, marketing, etc.; as well as all



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the patterns and innovations related to the economic sphere.

- Culture: it includes topics about family, language, identity, education, values, traditions, art, etc.; together with all the patterns and innovations linked to the cultural sphere.
- Politics: it includes topics about ideologies, political systems, government, legislation, taxes, political movements, etc.; and the patterns and innovations connected to the political sphere too.
- Ecosystem: it includes topics about nature, demography, environment, clean energy, pollution, town planning, etc.; along with the patterns and innovations associated with the ecosystem sphere.
- Security: it category includes topics about war and peace, the use of weapons and handguns by civilians, terrorism, kidnapping, political instability, social inequality, public health, intrusive technologies, information manipulation, race/age discrimination, gender violence, etc.; and all the patterns and innovations which have to do with the political sphere as well.

Participants had to answer the following 4 sets of questions (every one of them being adapted to each category) for each one of these thematic groups. A specific example for the *economy* thematic group is provided below:

 Attitude: participants were asked the question "How do you see the economic situation by the year 2030?" in this section. This allowed them to position themselves in terms of pessimism/optimism, on a scale from 10 (totally optimistic) to 0 (totally pessimistic).

In this section participants were asked to take into account three different dimensions, expressing an opinion for each of them. The dimensions were: *World* (referring to the global economic situation), *Country* (referring to the economic situation at home) and *Myself* (referring to the economic situation itself).

2. *Prospects*: this time they had to write a maximum of 150 words about the topic *How will the future of the economy*

be in your opinion? (based on the ratings from the previous section *-Attitude-*).

Participants were additionally asked to complement their prospects by naming some of the sources (books, webpages, magazines, journals...) that they usually consult and on which their visions of the future are based.

- 3. *Self-evaluation*: the attitudes and prospects given by participants were subjected to self-evaluation through these two questions (to be answered on a range from 0 –none—to 10 –maximum—):
 - What degree of occurrence do you grant to your predictions?
 - What is your level of knowledge about this specific subject (economy)?
- Vision: Participants were finally asked to write a maximum of 150 words about their desired future for ECON-OMY by the year 2030.

Results and discussion

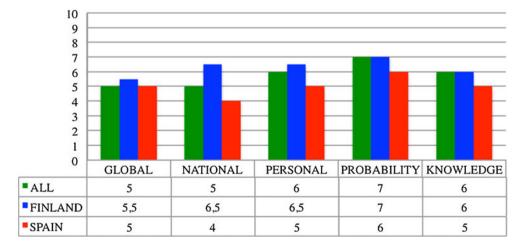
The results can be divided into quantitative and qualitative ones according to the research tools used in this study.

Firstly, the presentation of quantitative results (using a median) shows us the expectations about probable futures (attitude and self-evaluation). An attempt was also made to outline the general conclusion (or the most interesting finding) about each one of the categories considered in a single sentence:

- Economy by 2030—Economic crisis is upon ALL of us:
 As can be seen in Fig. 1, Economy is the category where all participants gave the most pessimistic evaluations.

 However, these results should actually "come as no surprise" within the current economic crisis context.
- Culture by 2030— 'Bright future' because of cultural exchange: Figure 2 shows us the optimism among

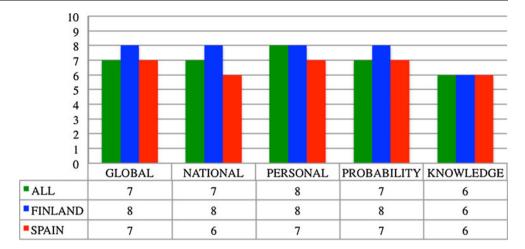
Fig. 1 Quantitative results for the category ECONOMY by 2030





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Fig. 2 Quantitative results for the category CULTURE by 2030



correspondents about the future of culture. Contrasting such results with the information provided by participants in their *prospects* (probable scenarios) allows us to state that correspondents see cultural exchange as one of the main factors when it comes to develop the cultures of the future.

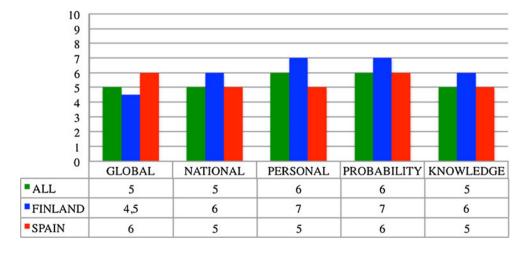
- Politics by 2030—The democratic model is in real danger: The results shown in Fig. 3 help understand some of the current refractory movements against different political and economic institutions, political regimes or political leaders. Furthermore, Finnish youngsters seem to have a better image of their politicians compared to the global trend.
- Ecosystem by 2030— We—the Finns—will fight against Global Collapse: Figure 4 shows a huge difference between the perception of Finns and Spaniards in this category. Contrasting these results with the prospects (probable scenarios) for this category allows us to check that most respondents were focused on Climate Change as the main challenge for the future of the Ecosystem.

Security by 2030—Home Sweet Home (especially in Finland): Finally, Fig. 5 reveals a striking difference in the perception of security. What can be identified in the light of these results, and drawing a comparison with our prospects, is: on the one hand, the pessimistic perception of Spaniards—who live in a country with a very recent history of dramatic terrorist attacks—and, on the other hand, the optimistic perception of Finnish youngsters—born in a country with no terrorist threats or military conflicts whatsoever.

A brief examination of the quantitative results for each category produces the following general outcomes:

- General optimism (above 5) in every thematic area. Moreover, result distribution is concentrated around 5, with few values close to 0 or 10. This can also be explained by the high degree of uncertainty considered by respondents.
- Youngsters are moderately optimistic about global and national futures in almost every category; they are very optimistic about their personal futures, though. This

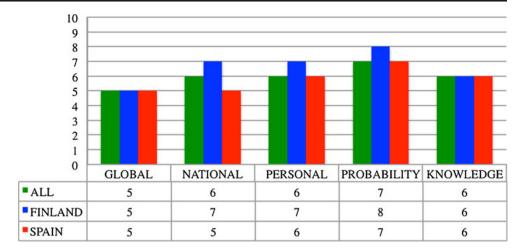
Fig. 3 Quantitative results for the category POLITICS by 2030





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Fig. 4 Quantitative results for the category ECOSYSTEM by 2030



dissonance—first noticed by Alvin Toffler [33]—was confirmed in subsequent studies [9, 25].

- A high level of expertise and confidence, along with a lack
 of diversity in the sources considered (mainly TV and
 general information newspapers). On the whole, students
 (both Spaniards and Finns) see themselves as 'experts' in
 the topics under discussion. Nevertheless, when asked
 about the kind of sources they usually resort to, only a
 few of them mention the access to specialized journals,
 reports, databases, etc.
- No differences between males and females. The most significant difference was found at *Economy*, where females were 1-point more optimistic than males at national and personal level.
- Insignificant differences between finns and spaniards at a
 global level, but a 2-point difference at national and
 personal levels. This is where the effect of context and
 cultural background on their perceptions about the future
 becomes most clearly visible.

Such a huge difference suggests that a deeper understanding of their respective cultural backgrounds is needed in order to make the right interpretation about the images of the future shown in this study. Some of our previous works already referred to the Finnish Foresight System [34], which integrates different dimensions of social life in Finland and has long been playing a key role in the task of developing future-oriented communities inside Finland:

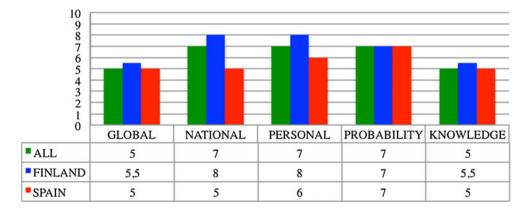
- Civil Society—Finnish Society for Futures Studies (established in 1980)
- Research—Finland Futures Research Centre (established in 1992)
- Politics—Committee for the Future of the Finnish Parliament (established in 1993)
- Education—Finland Futures Academy (established in 1996)

The configuration of this whole structure perfectly illustrates how deeply 'futures thinking' is embedded in Finnish people's minds.

Some findings derived from the specific analysis of the *Prospects* (probable scenarios) and *Visions* (desired scenarios) described by respondents are listed below:

 No significant differences regarding how they describe their probable futures: all students (both Spaniards and Finns) were highly focused on the "world level" when writing their scenarios, which explains the similarities between them.

Fig. 5 Quantitative results for the category SECURITY by 2030





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Lack of specific, creative ideas to describe the desired future: there are no breaking ideas in the scenarios described by students—most of which can be considered from a utopian and very general vision about the society of the future (green, open and peaceful). This can also be related to the fact that young people find it hard to visualise all the possibilities ahead of them [35].

With regard to desired futures, the most remarkable fact is
the prominence of people's/citizen's role in all social life
dimensions: 'people' appears as the key actor to determine
society's future in every category (economy, culture, politics, environment, and security).

Conclusions

As a general conclusion, and coming back to the title of this article ("Futures, communication and social innovation"), it is worth highlighting the following 4 points so as to achieve an improvement in further studies—based on the overall results and on the feedback of participants (and also on that of the students and teachers involved):

- Hard-to-understand/answer questionnaires: even when a
 face-to-face workshop was used to explain the content
 and main concepts to be taken into account, the student found the process hard to complete (too many
 categories and questions) and sometimes even confusing (what does it mean to think about the future
 creatively?).
- Lack of interaction: the platform suffered from a lack of technological tools, which make it easier for users to interact with one another. In this respect, the principles of Open Innovation cannot be fully developed without technical improvement (particularly when tools and applications are being shared).
- Overlap between groups: the selected categories proved useful to organise the responses to some extent but participants found numerous overlaps between the topics discussed in every category. A category structure redefinition for questionnaires could be worth considering.
- Hard to analyse: the scenario format gave us (as researchers) very valuable material to analyse. However, a more precise way to express expectations, fears and wishes about the future is badly needed to improve interaction (i.e. looking for a system that lets users compare their future visions in real-time).

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