

Willingness to incorporate external influences into research process will support strong basis for usable knowledge.



Researchers who are more open to external (non-academic) influences in their research are able to more easily share their research with users, stakeholders and partners. Researchers **Julia Olmos**, **Paul Benneworth** and **Elena Castro** studied researchers' willingness to include influences from users in the overall research process.

The purpose of science has traditionally been linked to continuously challenging the existing knowledge as a way of advancing in the knowledge frontier. Nevertheless, given the last period of economic austerity, less money invested in science led policy-makers to consider how distributing their limited resources to those researches creating returns and paybacks to society.

In this context, current practices to stimulate research generating societal impacts are forcing researchers to compete for funds on the basis of their valorisations plans and users involvement. Returns to society are no longer measures exclusively in terms of spin-offs and patents, but have been broadened by including other kind of knowledge transfer and exchange mechanisms not necessarily linked to commercialisation activities.

This implies that returns of research investments generated by producing useful knowledge for society and knowledge is more likely to be useful when it is easily usable by users. What can't of course be guaranteed is that users directly absorb knowledge generated in research process; in the context of Mode 2 knowledge generation, we acknowledge there are more indirect processes in which knowledge may pass through many academic hands before finally being absorbed and embedded in societal users. Therefore, we argue that we need to better understand the question of what makes research more usable for users.



In this sense we believe that the time has come to fundamentally reconsider the way that we think about how research creates social value, away from individual knowledge transfer transactions, to whether the overall trajectory of the knowledge base creates knowledge that is more or less cognate with user knowledges i.e. more or less usable by these users. This has consequences for us regarding researchers' overall focus and tenor in debating knowledge exchange between academic researchers and society at large.

For this reason, we seek to understand the process underpinning the creation of usable knowledge which we define as creating knowledge most cognate with users, thereby maximising its usability and the societal returns to the research investment. We propose a way of conducting research that leads to the production of knowledge cognate with users, contributing to a knowledge base related to user's needs. We argue that if researchers are more likely to take external (non-academic) influences into account in their research, then their findings will be more cognate with users, and also the basis for a stronger shared knowledge base with users.

We propose the concept of '*openness*' to capture this behavioural change that leads to producing more contextualised and usable research (or at least not less usable). We define researchers' *openness* as researchers' willingness to incorporate users' influences in their research process. We look at how openness is demonstrated by the researchers throughout the research process, and at the personal identity and academic social networks that might potentially determine researchers' openness.

We argue that researchers' behavioural changes in incorporating external stimuli should be visible from changed academic research practices throughout the research process. We conceptualise that as a research cycle consisting of several stages, from the inspiration stage – where researchers come up with an idea to address through research, to the dissemination stages – where researcher make the finding public.

We argue that researchers' openness is demonstrated throughout the research process when:

- they are inspired by considerations of use at the start,
- they make efforts to identify users, intermediaries and the potential use of the research when planning their research,
- they execute their research project using users' knowledge
- they disseminate their findings to users in ways that users provide feedback on what might be useful in the future, and
- they reflect on their potential future avenues of research and how they position themselves as researchers.

Thus, we define openness as an observable characteristic of researchers allowing the incorporation in some ways of the users' influences into the research process, which is more likely to lead to the production of new knowledge because of its shared knowledge-base with users.

We empirically tested the '*openness*' characteristic with an existing database of 1583 researchers of the Spanish Council of Scientific Research (CSIC). We found a general tendency that researchers who are open at one stage of the process tend also to be open at other stages of the research process. We also looked at the factors that affect researchers' openness, finding that personal factors (such as researchers' identity and past positive experiences in engagement practices) are strongly associated with researchers' openness.

The message of our exploratory piece of research suggest encouraging to ensure researchers have sufficient opportunities to engage with societal users, and to ensure that academic training underlines the relevance of conducting research taken into account non-academic influences, as a way of increasing its impact – since it is at the stage of the academic formation when academic identity is shaped. At the same time, policy-makers should not fall prey to simplistic management of identifying every project with a user, since creating usable knowledge is a process that builds up progressively and in a systemic way.

Despite the findings suggesting that ‘open’ researchers demonstrate openness throughout the entire research process, we should make a distinction here between the value of those opportunistic researchers who only work ‘in an open way’ in those research stages where it counts for promotion, ranking or other evaluations. We should be cautious in interpreting why researchers demonstrate an open behaviour and future research should aim at providing a better understanding of what makes researchers able to conduct more usable research, determining what kind of researchers are more ‘open’ and whether they do it ‘for the money or the glory’.

Working Paper available [here](#).

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