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Next-generation leadership roles and public service: incorporating a culture of co-creation at quadruple helix institutions

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Abstract

The past 15 years have seen a fresh approach to management training. One of the areas that has generated the most interest around Europe is how to improve project creation and co-creation, based, among other things, on 4H innovation models (quadruple helix comprising academia, government, industry and civil society) has become firmly established as one of the most important tools. Below is a description of three current cases that illustrate how different 4H actors are tackling the challenge of providing management training for co-creation in context.
Introduction

The past 15 years have seen a fresh approach to management training across all kinds of organisation (regardless of the sphere: public, private, universities, social and educational institutions, etc.). We are not saying that specialised training for management personnel did not exist before, just that the focus has shifted towards developing new skills and attitudes. It has changed to meet new demands (social, business, citizen, educational, etc.), resulting in the setting of new goals, which, in turn, have taken on new formats. In fact, many countries have seen a shift from general cross-discipline training for any kind of position, towards personalised development plans, which favour comprehensive training in management skills Public Administration School of Catalonia (EAPC, 2018) and eschew the dichotomy of specialised versus multi-disciplinary approaches, preferring a multi-faceted approach to management training.

In different European countries, this has meant reviewing and revising the way that training needs are detected as well as providing a more ordered and contextualised explanation of the skills
required of senior and middle managers. Thanks to the proliferation of teaching platforms, experience-sharing networks and learning opportunities, these managers can now achieve a level of specialisation and comprehensive training that was previously unimaginable.

One of the areas that has sparked the most interest in organisations, partly as a result of the European Union’s different strategic lines, is how to improve the way that new projects and initiatives are created (at all levels, including university, social, government, healthcare, etc.) so that they can respond more appropriately to all parts of the population. Co-creation, based, among other things, on quadruple and quintuple innovation models (Etzkowitz, 2000; Carayannis et al., 2012 & 2017; Puerari, 2018; MacAdam, 2016), has
become firmly established as one of the most powerful tools in this area, capable of constructing different, more holistic ways of tackling the major challenges of the 21st century, using a multidimensional and multi-agent approach.

These co-creation processes require management personnel to have new skills. The complex and growing needs of citizens call for political leaders, academics, businesspeople, educators, healthcare professionals, etc., who are not only capable of correctly applying co-creation procedures and techniques but who also demonstrate a new way of observing, tackling and meeting these needs.

Co-creation processes therefore require a fresh approach to leadership roles, which must extend to all the helices of the model (academia, government, industry and civil society). Furthermore, training approaches must be permanently reframed in order to achieve the right levels of excellence for a society that is becoming more demanding of its leaders.

Following this line, the three cases described below provide examples of projects, both under development and already in progress, which offer new training models for managers in response to the challenges posed by co-creation. Each of these experiences illustrates the way in which a different quadruple helix actor (in this case from the areas of research, academia, local government and the technology industry) tackles management training aimed at co-creation in context.
Training university staff to meet the challenges of co-creation and impact-driven SSH-research

Quadruple helix partner co-creation and impact-driven research is a priority for the EU and, increasingly, for universities. Yet this is more easily said than done. Within the Horizon 2020 project ACCOMPLISSH¹, 14 focus group interviews were conducted in 12 European countries, with the purpose of exploring obstacles and enablers in co-creation and impact-driven SSH-research (Social Sciences and Humanities research). Interview participants were from the entire quadruple helix (33 participants from academia, 23 from civil society, 18 from government and 11 from industry) and they were asked to describe and elaborate on what they perceive these obstacles and enablers to be.

The focus groups showed that successful co-creation and impact-driven research collaboration depends on the involvement of all stakeholders in defining a common question early in the collaboration process. The same goes for questions of impact, validation and valorisation, and academic freedom and integrity. Differences between institutions in terms of logic, rationale, incentives and roles,

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¹. ACCOMPLISSH stands for Accelerate CO-creation by setting up a Multi-factor Platform for Impact from Social Sciences and Humanities. The project aims to create an innovative valorisation concept to strengthen the position and impact generation of social sciences and humanities research. In order to reach this goal, they work with stakeholders — potential research users — in co-creation, understood as collaborative creativity, so that the innovation process is carried out together with the different social stakeholders. All of this falls within the framework of the so-called quadruple helix (academia, government, industry and civil society). More information can be found at: www.accomplissh.eu
as well as nomenclature, language and communication, must also be addressed and there is a need to challenge one’s own and each other’s preconceived notions.

ACCOMPLISSH co-creation platform infographic. 
Source: accomplissh.eu
Moreover, sufficient time, finance and human resources must also be allocated to the research. Spaces for interaction must be provided, and facilitators and intermediaries should optimise collaboration and provide good practice. The skills of researchers and research managers are essential for accomplishing this endeavour — e.g. communicative competence, sensitivity to differences in nomenclature, system knowledge and an awareness of expectations among quadruple helix stakeholders.

Against this background, all quadruple helix representatives have much to gain from training, and as representatives of academia and education, we need to take the first step. Training must target researchers, teachers and research management staff as well as top university management. Many universities are already organising staff training in co-creation and impact-driven research, often with a focus on individual researcher career development. A common experience among colleagues is that discussions on co-creation and impact-driven research often remain at a rhetorical level.

Thus, university co-creation training must address academia’s role in society — including questions of autonomy, ethics and the differences between problems of research and social, political or economic problems. Training must include questions and concerns regarding the individual researcher role — i.e., researcher integrity, responsibilities and consequences of conducting co-creation and impact-driven research. This allows researchers and
researcher managers to feel secure in their professional roles and helps other quadruple helix partners to understand the role of research. This saves both time and frustration in any collaborative relationship. Training must address the interpersonal aspects of co-creation. Some of the areas that training should focus on are: communication, appreciation of differences in terminology and nomenclature, organisational values and culture, and mission and models for funding. The start and end of collaboration depends on the solely human aspects of interaction, relationships, roles, expectations and emotions. At the end of the day, mutual trust, respect and confidence are what matters and these factors should therefore form the fundamental starting point of this kind of training. The ‘co’ in co-creation entails mutuality, trust and a common goal for a common good!

Knowledge transfer from Social Sciences, Humanities and Arts for next-generation human-machine interfaces

Electronic screens have been the most popular human-machine interface (HMI) for quite a while now. But the next generation of HMI is in the starting blocks: Nano-scale machinery inside our bodies will be able to monitor and modify human beings, while Saudi Arabia’s Sophia robot is already the world’s first machine with civil rights and duties. HMI already has an influence on human beings’ everyday lives, and we can
assume that this influence will increase significantly in the future.

Of course, HMI based on artificial intelligence is a fascinating piece of high technology, but its use entails many issues that go beyond technology. It throws up questions such as “When does a human being stop being a human being?” or “How will acceptance of biohacking develop in the future?” Questions like these are highly relevant for achieving market success. Answering these questions requires “understanding” of human beings, their behaviour and relations. “Understanding” is the core competence of Social Sciences, Humanities, and the Arts (SSHA). Knowledge from SSHA will therefore play a crucial role in next-generation HMI, and co-creation will be necessary.

The basic objective of the experience presented here is that broadening the view
of technologies through SSHA increases users’ understanding and reduces market risks. Achieving these goals will require co-created knowledge transfer that is heavily based on SSHA research. The continuity of the necessary exchange between SSHA and technologies can be best achieved in a truly physical environment — in this sense, knowledge transfer needs a physical home, which is why initiatives such as Amsterdam Venture Studio Humanities (Amsterdam, the Netherlands), Social Science Research Park (Cardiff, Wales), Social Sciences and Humanities Park at Can Jaumandreu (Barcelona, Spain), or the planned Humanities Matter Lab (Cologne, Germany) exist. They allow co-creative interaction between the senior management of companies and SSHA academics. But they do more: these laboratories provide space for the training and learning experiences that are necessary in order to educate students, academics and company employees in managing digital transformation. For instance, next-generation HMI require more than just technological developments — they need to be accompanied with an understanding of people. As already mentioned, SSHA is about this understanding; therefore, SSHA needs to be included as one of the core parts of training.

A proven methodology that is helpful in nurturing the co-creation process is that of the so-called “impact cafés”. In this facilitated interactive setting, SSHA academics work together with senior management from tech companies on questions such as those mentioned above as well as those raised by the company.

Knowledge from Social Sciences and Humanities research will play a crucial role in next-generation human-machine interfaces, and co-creation will be necessary as an understanding of people is needed.
The experience is part of an ongoing process and, hence, no final results are available yet. But it appears that impact cafés lead to a growing understanding of user behaviour, the potential risks of a particular kind of technology and potential societal barriers. They also lead to a strengthening of interdisciplinary approaches and organisation, not only within academia but also within companies. The Telekom Design Gallery of German Telekom may serve as an example of this.

With these experiences in mind, co-creative platforms that include SSHA will significantly impact technological HMI developments within telecom industries.

**Co-creation as a motor of change in participation and civil servant organisational culture in the City of Ghent**

The changing role of government, due to the complex and uncertain context and changing perceptions and expectations of its citizens, requires government officials to develop new capacities and attitudes. This is even more so at local government level as it is closer to its citizens.

One recent example to illustrate this is the City of Ghent, which has been experimenting with participation and co-creation for over 20 years. In the urban renewal project “Muide Meulestede Tomorrow”, Ghent is incorporating citizen involvement in a completely new way. The project acts on the social shift towards active participation and sees citizens and
local district partners as the experts when it comes to analysing the situation and needs of their neighbourhoods. They are therefore not only involved in devising solutions, but also in implementing and adapting them. This sounds logical, but co-creation in such complex projects is not easy. The most challenging part of making urban planning more human-centred is perhaps the alignment between the ‘life world’ and the ‘system world’, between the individual and collective use of urban space, and between the use of public space and the legislation regulating it. Put differently, the challenge is to make urban spatial policy more flexible to let citizens co-create public space without compromising the functioning of the city.
as a physical-spatial system now and in the future.

The same holds for other policy fields. This calls on government officials at every level to develop the capacity to act as brokers in the city. This requires flexibility, humility, curiosity, user-centricity, empathy and a collaborative spirit, among others. It also requires a culture of co-creation in the way the city is organised. Co-creation is, in fact, more about the attitude than about the methods or tools.

To ensure that this attitude becomes rooted in all levels of the organization, the City of Ghent applied a co-creative approach to strengthen its values and culture as an open and attentive city. It partnered with StreetwiZe, an inspiring organization living up to its values and taking a different approach to talent development in order to establish a bottom-up process. In ‘start to’ lunches, members of senior management were paired with employees from different levels to have conversations over lunch. The aim was to get a feeling of what things are like inside the organisation, what the organisation’s strengths are, what can be done better and in what fields it can excel. The lunches resulted in 20 major issues being highlighted, which were clustered into three main areas: ‘more people’, taking a more human-centred approach, ‘more solutions’, aiming for a can-do attitude, and ‘less rules’, for creating a flexible environment. During follow-up workshops in each department, more than 1,150 ideas were clearly defined to ensure that they could be easily implemented. Thanks to the co-creative approach and positive focus
during the whole process, the employees literally worked on the culture and created a story to live by and which proved to be very stimulating.

**References**


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