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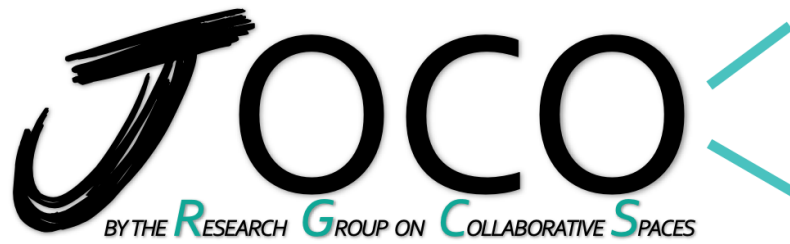## Journal of Openness, Commons & Organizing

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IN THIS ISSUE

Societal and Political Dimensions of Openness: Innovation, Strategy, Organization

Stefan Haefliger, Paula Ungureanu and François-Xavier de Vaujany[1]

Opening organizational processes and structures seems to be a more and more central to a contemporary approach to management and organization. In the last decades, this approach changed dramatically from the vertically organised and closed silos of the grand R&D organizations of the 20th century to a collaborative, joint, user-led, indeed, inverted firm that characterizes platforms (Benzell et al., 2023). Where once all resources were allocated internally and spillovers cast as the antithesis to successful competition today's managerial tenets include pre-emptive generosity, contributions to public goods, and the integration of consumers in production processes.

Organization studies and social studies at large invite both scholars and practitioners to open their ways of thinking and acting. Open innovation (Chesbrough, 2012; Bogers et al, 2017), knowledge flows across communities and organizations (Haefliger, Von Krogh and Spaeth, 2008), open research and inquiries (de Vaujany and Heimstädt, 2022) all contribute to a new principle of openness (Splitter et al, 2023) that drives strategy and leadership (Hautz et al. 2017).

Opening is a spatial invitation. It is a call to create more permeability in organizational boundaries or even, to overcome them to potentially let in new actors, techniques or experience. It is also a deeply temporal claim. Any lived pasts or dreamed and anticipated futures should be likely to enter into the organizing process. Open organizing is a deep, resonant, fluid mode of collective activity. While spatial dimensions appear in topics of new work and how offices are structured, more virtual dimensions drive the opening or the reversal of openness in strategy, such as the flow of knowledge and experience on one side, and the inclusivity of decision making on the other side (Haefliger, 2019).

As shown with this thematic issue of the JOCO, openness carries wider implications that touch upon social and political spheres. Our approaches to coordination, allocation of resources, our views of value and business models, are deeply renewed by this move. Crowds are more expected to feed the innovation process, and even to disrupt it. Likewise, citizen and open sciences are more and more expected to enrich and sometimes, part with traditional ways of doing research. Emergent technology also stimulates the imaginative transformation of present conditions into future visions of disruptive openness. Artificial intelligence prospects a world where the machine will be able to generate innovation beyond human ability (Faraj et al. 2018) and blockchain technologies promise to facilitate an integrated worldwide data warehouse where any format of data can be shared and understood by any device over any network (Jacobetty and Orton-Johnson, 2023). Immersive and augmented reality technologies promise to transform the way we work and interact by translating into our daily environments objects, people, and places that are either distant or do not yet exist (Dincelli and Yayla, 2022). These promises transcend institutionalized boundaries between physical and virtual realities, humans and machines, markets, states, professions and communities, to convey the idealized image of a technocratic world that will be free, open, progressive, even transcendent.

This has also multiple consequences for work practices and ways of organizing them. Work itself can now happen openly from anywhere at any time (Cnossen et al., 2021). People can now be remote workers or digital nomads. Their work is not anymore an activity bounded within an organization, a recurrent and routine here and now. It is more and more an open, fluid and ambiguous temporality. And novelty as part of a product and service can now happen anywhere, anytime. The recent algorithmic phenomena and models in our society promise to establish radically new forms of organization based on automation and decentralization such as peer-to-peer knowledge communities, AI-powered holacracies and decentralized platform ecosystems where code becomes the 'law' (Lessig, 2000) and knowledge and practices pertaining to traditional fields of expertise are subverted, transformed or even abolished (Burrell & Fourcade, 2021; Zuboff, 2019). Innovation, in particular, has changed dramatically in the platform society. Multiple actors involved in innovation processes operate across organizational boundaries within interdependent relations which bring together multiple forms of organization; Consequently, when success or failure occur in such systems, measuring and attributing performance becomes an uncertain or highly debated endeavour (Shipilov and Gawer, 2020).For our democracies and our societies which have largely relied on productive activities on the here and now of a place (for employees, for customers, for citizens…) and of clear-cut organizational forms, this has for sure radical implications which will be explored in the thematic issue.

While business may or may not be perceived as core to society and democracy, a number of fundamental changes linked to openness in innovation and strategy may translate to impact the societal and political spheres more and more. The promise of Castells' network society take the everyday and mundane forms of communication

platforms such as WhatsApp or X and civil discourse shapes and is shaped by the corporate decisions around application programming interfaces. Who gets to influence a democratic discourse with nudges and advertisement? Who gets to program extensions and modifications of programs used to share news or scientific findings?

Traditional media have been gradually losing their role as public-opinion makers to social media, which have been long described as an emerging global agora for collective decisions (Castells 2015, Etter et al., 2019). Yet the last decades of public scandals regarding ignorance and manipulation have suggested that the idealized visions of openness in social media co-exist side-by-side with polarization, social division and erosion of democratic institutions. Similarly, emerging technologies which promise to emancipate in the future have been shown to enslave, constrain or even humiliate human dignity in the present. Activists take on platforms they accuse of abusing workers by manipulation and surveillance and consumers protest against algorithms that store their preferences and use them for and against them to optimise service delivery and pricing. The gig economy where everyone can work at any time and any place has become a daunting place for mental health (e.g. Petriglieri et al., 2019) and expanded surveillance increasingly links political views with employment opportunities and discriminatory business practices.

We may be under a grave risk of underestimating influences that emerge from points of view fundamentally opposed to democracy and human rights, in fact facing alternative truths we may be swayed into worldviews that are murderous and disrespectful of any human rights and freedoms. If openness turns to an indiscriminate endorsement of any idea as long as it comes with money and resources, then openness is likely to hurt democracy and end it.

Is the inverted firm becoming the inverted democracy? Does a society increasingly draw on resources from the outside and does the openness of a society pose risks that are critical for its sustained openness and sustainability? It appeared always as unquestionable that closed societies tend to lose out, on global trade, culture, and the opportunities for their citizens. What are the downsides of openness for a society and have we understood these downsides in times of increasingly fast and uncontrollable knowledge flows?

In organizations, openness does not appear to seal its own fate as far as we know. While irreversible in the short run, open strategy holds the potential for changing paths and pivoting to new and extended purposes for the organization with the inclusion into decision making of stakeholders beyond the owners. To deal with the paradoxes of openness, we thus suggest a renewed attention to temporal and spatial dimensions (see also DeVaujany et al.,2023, this journal, Ungureanu, 2023). For instance, what is the relationship between idealized visions of future open worlds and the ongoing trials and errors through which openness is experimented in our present's organizations, communities and institutions? How are ongoing processes of spatial and temporal strategizing shaping current institutions and organizations? Specifically, as we strategize about new socio-technical arrangements, how are we moving towards aspirations for a better world or getting re-sucked into old forms of organizational power, control and surveillance? To celebrate local diversity, how can we continue to study socially situated work practices while acknowledging globalization and virtualization trends? Most importantly, which are the guideposts that we, as individuals and as collectives, might follow as we traverse an increasingly complex world made of social, technological and environmental challenges? What are the capitalist safeguards and how do such safeguards translate to democracies and society at large? While bankruptcy laws protect citizens we have little in store to protect failing governments and institutions if openness overflows and turns against them. We hope this issue inspires further and wider thoughts in social sciences as to the ends and risks of openness with a pragmatic and critical eye.

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The social and political challenges of open innovation

Thierry Isckia and Xavier Parisot[2]

Introduction

Since the emergence of the Open Innovation (OI) concept in 2003, some scholars criticized its opposition with in-house R&D / closed innovation (CI) and debated its contributions (Trott & Hartmann, 2009). Despite its numerous detractors, its theoretical and practical weaknesses, the OI perspective has been applied by many scholars, companies and even states in various national policies. In a context where digitalization, globalization, and the fast raise of the knowledge economy complexify business, increase competition, and generate turbulences, this perspective presents simple linear solutions favoring corporate innovations.

This simplicity in a complex economic background explains, at least partially, the large adoption of OI practices at the global scale. However, if the successes of OI implementations are well documented, the failures remains poorly studied and reported and the dangers of OI applications have only recently begun to be studied (Audretsch, & Belitski, 2023; Madanaguli et al., 2023). This article briefly examines the fragility of the relationships between OI, national policies and societal aspects based on the conceptual and practical weaknesses of that perspective.

Keywords: open innovation; challenges; social; political

Open Innovation ontological weaknesses

The OI view is the antithesis of the "*not invented here*" syndrome that still pervades many organizations and which characterize in-house R&D qualified as CI. OI opposes to CI all practices extending the innovation process beyond the boundaries of the firm, drawing on internal and external contributions to generate new ideas, develop new products or services, and solve complex innovation problems. Openness to various external sources of IP, technologies, and expertise from partners, universities, start-ups, customers, and even the civil society or crowds is the basic requirement.

This initial dichotomy between OI and CI is the first weakness of the OI concept (Isckia & Lescop, 2011). This pseudo-dichotomy does not stand up to a historical re-reading of innovation. Indeed, since Schumpeter (1935), it is clear that entrepreneurs rely on the sensing of external profit opportunities, the seizing of the best of them and on the organizational transformation required to implement the chosen opportunities and achieve their strategic innovative visions. Therefore, can any in-house innovation processes be qualified as closed?

The second weakness concerns the OI funnel presenting a linear innovation process which follows the stage gate view. Innovation is inherently a cyclic process where new innovations are built upon previous ones. In addition, that process involves feedback and feed-forward mechanisms *e.g.* to measure the balance between the perceived profit and the risk (market test), assess the market readiness (market study), etc. These loops between the strategic, managerial and operational levels mobilize absorptive and desorptive capacities (Lichtenthaler, & Lichtenthaler, 2010) which constitute generic dynamic capabilities – DCs (Lichtenthaler & Lichtenthaler, 2009; Parisot & Isckia, 2022) allowing information, knowledge, IP, and expertise to flow within and across the boundaries of the firm. Consequently, can any IO process be presented as linear?

In spite of these drawbacks, the success and rapid evolution of the OI concept can be largely attributed to its simplicity, if not outright simplistic nature. This success is underscored by the recognition that OI extends beyond a firm-centric approach (Chesbrough & Bogers, 2014). It embraces the involvement of creative customers (Berthon et al., 2007), communities of innovative users (West & Lakhani, 2008), and has demonstrated its supportive role in fostering inter-organizational innovation developments (Chesbrough & Appleyard, 2007; Chesbrough et al., 2014).

The remarkable success of OI, not to say OI mania, is all the more remarkable given that another concept, introduced ten years earlier, had already interconnected these elements in a much more comprehensive way: the business ecosystem (Moore, 1993). Since its initial conceptualization, Moore (1996) integrates OI logics as causal powers of collective strategies. However, his understanding goes far beyond has he connects inter-organizational innovation to the co-evolution of firm's capabilities and therefore prefigures the enabling role of internal and external DCs in feedback and feed-forward mechanisms (Parisot & Isckia, 2022).

The Importance of Open Innovation in the Current Context

OI has become crucial in today's economy for a number of well-known reasons:

- *Complexity of problems*: Current technological, economic and societal challenges are increasingly complex. Solutions often cannot be found internally, making it imperative to seek outside skills and perspectives.
- *Access to information*: The digital age has significantly improved access to information and enabled rapid

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dissemination of knowledge. OI leverages this connectivity to facilitate the exchange of ideas and data.

- *Value Creation*: OI partnerships, such as collaborations with start-ups or universities, create value for all stakeholders. This can foster broader economic growth and strengthen innovation ecosystems.
- *Adapting to technological trends*: OI facilitates the adoption of the latest technologies and innovative practices. This allows businesses to stay up to date in a world where technology is booming.
- *Citizen participation*: In the public sector, OI promotes citizen participation in decision-making and problem solving by crowds or communities, thereby strengthening participatory democracy and the legitimacy of public policies.
- *Improved societal impact*: OI can help solve complex societal problems, such as environmental, health, or educational challenges. OI initiatives in these areas can have a profound impact on society.
- *Evolving business models*: OI has given rise to new business models, such as platforms and online marketplaces, which are changing the way companies interact with their environment and create value.

In summary, OI is relevant and influential because it can provide substantial benefits to businesses, society and the economy as a whole. It promotes collaboration, efficiency, and adaptability, and offers an innovative perspective on how organizations can thrive and solve complex problems in a world that is changing more and more quickly. Its influence continues to grow as new technologies (AI, Blockchain, APIs, AR...) and innovation practices emerge (corporate incubator, open data hackathon, crowdsourcing-based open innovation, innovation contest, citizen-sourcing...) and as it extends beyond business to the public sector and civil society.

Open Innovation, Political and social dimensions

OI influence continues to grow as new technologies and innovation practices emerge, and as it extends beyond the business domain to encompass the public sector and civil society. Examining the relationship between OI and political and societal aspects reveals a series of complex dynamics that deserve careful consideration.

Some studies highlight that economic, political and social interests are closely intertwined and can collide, creating underlying tensions (Beck et al. 2022; Mergel, 2021). Researchers need to explore these tensions to understand how they influence open innovation decisions (Chesbrough, 2019). In what follows, we briefly analyze the interactions between OI and these dimensions, underlying the associated benefits and challenges.

Open Innovation Policies benefits and challenges

National Innovation policies can benefit from OI (Patrucco *et al.*, 2022) as it facilitate cooperation between the public and private sectors to solve complex social problems, *e.g.* the creation of competitiveness clusters in France in 2005. Various governments encourage OI logics adoption to foster economic growth and boost national competitiveness thus stimulating national innovation. To achieve such a goal, supportive regulations are needed.

Pro-openness policies, such as data protection laws, can create an environment conducive to collaboration and innovation, *e.g.* the creation by the European Commission of the Open Innovation Strategy and Policy Group in 2010.

However, these potential benefits do not come without challenges. Structural and cultural corporate prerequisites needed to implement OI logics have often been underestimated. Moreover, intellectual property (IP) protection policies can hinder the free flow of ideas and technologies. Furthermore, opening up to external players can raise concerns about cyber security and confidentiality. Finally, lobbies that seek to shape OI policies in their favor may influence political actors without considering the lack of readiness of other industries.

National firm's adaptation to OI takes time. It implies the development of generic and specific DCs enabling a cultural switch from cooperation to collaboration to co-evolution and allowing the transformation of clusters and networks into business and innovation ecosystems. The refocus of the European innovation policy in 2022, putting aside the Open Innovation 2.0's view proposed in 2013, for a more ecosystemic developmental approach finally starts to answer firm's practical needs to develop the DCs required for that cultural switch to happen.

Societal benefits and challenges

OI can expand access to knowledge and education, thereby promoting inclusion and social mobility. It allows citizens to participate in decision-making and contribute to the resolution of social problems. OI practices can also be useful to solve societal problems such as health (e.g. COVID-19), education, and the environment but also crises and natural disasters.

Once again, these societal benefits do not come without challenges. Indeed, the benefits of OI are not always distributed equitably, creating inequalities in access to information and innovation opportunities. In addition, openness of data and technologies can raise concerns about privacy and the collection of personal data. OI can also amplify social polarization by strengthening

information bubbles and fostering the formation of exclusive communities.

Therefore, it is essential to question the benefits of OI and recognize these potential challenges. Relationships with political and societal aspects reveal complex dynamics, and it is crucial to weigh the benefits against the risks. Critical reflection can help identify best practices for fostering ethical, inclusive and balanced OI.

Ultimately, OI can have a significant impact on policy and society, but it is essential to remain vigilant to ensure that the benefits reach as many people as possible and that the challenges are managed responsibly. Appropriate regulation, cybersecurity awareness, and privacy protection are all key elements in guiding open innovation towards a future that benefits everyone.

Potential conflicts related to open innovation and political aspects

The complex interplay between OI, the political and societal dimensions can give rise to potential conflicts and dilemmas of great importance:

- *Regulatory conflicts*: OI may come into conflict with existing regulations on the protection of IP. Indeed, the opening up of ideas and technologies can contradict patent and copyright laws, creating tensions between the interests of OI and the protection of intellectual property rights.
- *Economic interests and lobbying*: Political actors can be influenced by industrial or commercial lobbies, which can lead to OI policies biased in favor of certain sectors and players, to the detriment of broader innovation and the public interest. This phenomenon is akin to the appropriation of public goods or commons (Vallat, 2023).
- *National sovereignty*: In a globalized context, opening up to foreign players may raise concerns relating to national sovereignty, particularly in the field of cyber security and defense.

Dilemmas linked to open innovation and societal aspects

OI, while offering tremendous potential for economic growth and technological advancement, is not without its dilemmas, particularly when examined through the lens of societal considerations:

- *Privacy vs. transparency*: OI can promote the transparency of data and information, but it can also compromise the privacy of individuals. This dilemma raises ethical questions about how to strike a balance between the need for openness and the protection of personal data.
- *Inclusion vs polarization*: OI can promote inclusion by giving access to knowledge and innovation to a wide audience. However, it can also lead to polarization by

encouraging the formation of information bubbles and exclusive communities that only share similar points of view.
- *Equity vs inequality*: While OI has the potential to reduce inequality by making innovation accessible to a wider audience, it can also create inequalities of access if certain communities or groups are excluded from the process.
- *Ethics in Innovation*: The ethical dimensions of OI require careful consideration. Collaborative efforts may involve diverse stakeholders with varying ethical standards. Determining universally accepted ethical guidelines for OI becomes a complex dilemma. Questions about data privacy, transparency, and the responsible use of emerging technologies need to be addressed.
- *Digital Inclusion and the Digital Divide*: In a world where digital technologies have become ubiquitous much of OI is facilitated through digital platforms, a dilemma emerges concerning digital inclusion. The risk of widening the digital divide raises questions about ensuring equitable access to the benefits of OI. How can society ensure that advancements in technology are inclusive and don't inadvertently leave certain populations behind?

In navigating these dilemmas, it becomes evident that OI cannot be divorced from its societal implications. Striking a balance between fostering a collaborative and innovative environment and addressing the societal challenges it may generate is crucial for realizing the full potential of open innovation.

However, the presence of potential conflicts and dilemmas linked to the interaction between OI innovation, political and societal dimensions does not necessarily call into question the notion of openness *per se*. Rather, it highlights the importance of carefully managing and regulating openness to maximize its benefits while minimizing its downsides.

Towards "sustainable" open innovation

Openness is a fundamental principle of OI, which is based on collaboration, the sharing of ideas and the diversity of sources of innovation. It has the potential to stimulate creativity, improve the quality of products and services, encourage citizen participation and address complex societal problems. Nevertheless, for openness to be beneficial, it must be managed responsibly.

When considering conflicts and dilemmas, it is essential to strike a balance between openness and the protection of legitimate interests, such as IP, privacy, national security and countering polarization. This requires critical thinking and appropriate regulation. The aim is to find a

balance that maximizes the benefits of OI while mitigating the potential risks to society and politics.

From this point of view, the notion of "sustainable" openness makes perfect sense in the context of OI. It involves applying principles of sustainability and accountability in the implementation of OI, recognizing limits and seeking a balance between openness and the protection of long-term interests, both political and societal. Here is why this notion is relevant:

- *Societal sustainability*: A "sustainable" approach to OI emphasizes the creation of long-term value for society. This involves considering the long-term social impacts of OI practices, ensuring that the benefits are fairly distributed.
- *Environmental sustainability*: In the context of OI, sustainability can also include consideration of environmental consequences. Openness must be carried out in such a way as to minimize negative externalities on the environment.
- *Economic sustainability*: OI must contribute to the long-term economic viability of companies and innovation ecosystems. This means that it must not compromise financial stability, intellectual property protection or competitiveness.
- *Ethical responsibility*: The notion of "sustainable" openness also involves making ethical decisions, taking into account societal values and the protection of individual rights, such as privacy.
- *Balance between openness and protection*: "Sustainable" openness recognizes that there is a balance to be struck between openness and protection, and that this balance may vary depending on the context and specific objectives.
- *Regulation and governance*: To promote "sustainable" openness, it may be necessary to put in place regulations, standards and governance practices that guide how OI is implemented and managed.

Conclusion

In brief, the notion of "sustainable" openness recognizes that OI must be guided by overarching principles of sustainability, responsibility and equity to maximize its long-term benefits while minimizing its risks and drawbacks. It helps ensure that OI benefits not only immediate stakeholders, but also society as a whole, aligning with economic, social and environmental sustainability goals.

Researchers need to explore these complex issues in order to propose balanced solutions and regulatory frameworks that maximize the benefits of OI while minimizing the risks to society and politics. Empirical studies, conceptual models, and ethical analyses are essential to inform the

debate on OI in a constantly evolving political and societal context.

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Is Hybrid Working the way for participatory democracy in organising?

Gislene Feiten Haubrich[3]

In this essay, I reflect on hybrid working as an opportunity for participatory democracy in organising. While ongoing discussions on this new way of working focus on different aspects such as the workplace, work model, and even the benefits for individuals' careers and organisations' financial performance, I turn my lens to the ordinary and elaborate on how work is the basis of organising, aiming to explore a participatory democracy perspective around hybrid working. In dialogue with the Circle of Bakhtin and the Ergology, we introduce three points for further consideration. First, arrangements required for hybrid working to work necessitate dialogue and interaction. Second, we focus on meaning making as a political act to navigate the paradoxes permeating hybrid working. Finally, we propose a participatory democracy in organising for hybrid working emerging from ordinary acts in the activity of work.

1. Opening thoughts

From the very first time I read Stanley Deetz's texts on participatory democracy in organisations (Deetz, 1992, 1999), I became fascinated with the topic. It led me to my PhD research on coworking. At the time, I was sure that if there were a place where I could see the materialisation of a democratic workplace, it would be in a coworking space. Yet, research (others and mine) shows that coworking hosts some contradictions. For instance, while it's expected that a bunch of strangers would need a democratic approach to cohabit. Yet, with the focus of sharing the *place* but not the *space*, coworkers' form of cohabitation often relies on working alone together (Spinuzzi, 2012). Coworking is, as many, a polyphonic notion, and different 'waves' of meaning fight for the spotlight (Gandini & Cossu, 2021).

Despite such detour, I kept my interest in the topic, though. I had (and still have) a hunch on the link between working, learning, and living together. There must be a connection between these three actions, and somehow, they are one when we act. That is what I speculate, and it is why I wonder if a view foregrounding power relations is the way to think about democracies, especially workplace democracy. I did, and still do, recognise the relevance of approaching and questioning power in all sorts of organisations (Clegg, 1989; Spicer et al., 2009).

Nevertheless, on my journey, I became a **Bakhtinian** reader (and enthusiast). In addition, I encountered an approach called **Ergology**. Both views struck me with the beauty of the ordinary. Both perspectives turned my attention to the minor, daily transgressions, full of creativity and source of knowledge sharing and learning processes. Finally, both perspectives attempt a more subtle form of observing the emergence of organising, one that inspires us to unveil everyday doings.

When the pandemic hit us and several discussions around hybrid working emerged, I felt like: 'wow, now, we'll have the opportunity to explore more democratic ways of organising'. Would we take it? Would we dare it? I kept my eye on the evolving discussions, and sooner, the conversations turned into a duel. Employees' desires against managers' needs; managers' desires versus employees' needs (Gratton, 2020; Trevor & Holweg, 2023). Since we are still in tension and still discovering the phenomenon, I asked myself:

(1) Can we think of Deetz's ideas on democratic organising from perspectives where power is not at the centre?

(2) How do these perspectives help us to understand hybrid working as a democratic way of organising?

However, before we move forward, I can imagine one might be pondering: why is participatory democratic organising a topic worth to be discussed? Also, how is it related to hybrid working? Well, if it is there, I understand the scepticism. Democracy in societies is failing to deliver equality and better life conditions to citizens worldwide. So, why would it be different in the organisational context? At the core of responses to these questions is our personal remark: how have *I* intended to participate on democratic processes?

While we all reflect upon our role on democratic processes, beyond the vote, of course, let's explore some of the existing ideas. For instance, Kerr (2004, p. 94) claims that "the role of democratic process is to enhance the competitiveness and performance of the organization". However, I ponder: how does this sort of marketisation of democratic processes contribute to our ways of making sense of collective efforts in the workspace? Adobor (2020), on the other hand, argues that democracy in organisations refers to employees' participation in the decision-making, an opportunity for them to speak up and have a say in the organisation's strategy. Yet, I wonder: is participatory democracy a matter of *having* a voice in organising? Or is it a matter of *finding* a voice within other voices?

In this essay, we will present some initial thoughts on finding answers to such questions. We want to explore a more grounded perspective on how work contributes to our sense-making around participatory democracy in the workspace, especially because the core interest is on

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organising hybrid working. We argue for such perspective because new ways of working, such as coworking or hybrid work, "emerge as responses to cultural tendencies of individualization, while recursively and creatively created, in never ending processes of development" (Aroles et al., 2021). This essay is our first effort to flip the coin, and focus on bringing work back in (Barley & Kunda, 2001). The first step towards our goal on theorising participatory democracy in organising hybrid work. Our pitch on approaching work from an ownership perspective instead of an empowerment one.

We'll start by briefly explaining what we mean by participatory democratic organising, and then address the first question by introducing core discussions on the ethical act (Bakhtin, 1999) and the ergological view on the activity of work (Schwartz, 2020). We'll conclude with primary, and provisory, considerations on participatory democracy in hybrid working.

2. What do we mean by participatory democracy in organising?

Direct to the point, by a participatory democracy in organising, we mean a deep dive in to understand the micro dimensions of work. The focus is on interactions at work as the core on organising. Let's jump in.

Starting point: A critical approach to communication in organisations

In a 2011 text available in *The Oxford Handbook of Critical Management Studies*, Stanley Deetz and John McClellan shared their take on the available approaches to communication in the context of organisations. Back in the day, I got in touch with these ideas once they were translated into Portuguese, surprisingly, in a similar timeline to the original publication (Deetz, 2010). I want to highlight this because I come from the [defined] South of the world, and it's prudent to remind the readers that the time-space in academic [and others] traditions are diverse compared with the [defined] North (Alcadipani et al., 2012).

In the mentioned chapter, Deetz and McClellan present a matrix and a detailed outline of the four dominant perspectives to understand how communication and organisations come together: strategic communication, cultural management, liberal democracy, and participatory democracy (Deetz & McClellan, 2011). The latter got my attention instantly, and it will be the one we'll recollect *here and now*. For the others, I firmly recommend paying a visit to the chapter. In terms of context, it is important to prompt that as the book title

suggests, the text written by Deetz and McClellan (2011, p.440) focuses on topics dear to critical management scholars, such as "the emancipation of marginalised interests". The core ideas of an organisational communication approach emerging through a participatory democracy, the authors say, evolve around *power, domination, and resistance* (Deetz & McClellan, 2011, p.441). These are complex and intriguing notions. Yet, they were not the ones that made me fall in love with the text.

What really caught my attention while navigating the chapter was the underling of meaning making as a political act. Deetz and McClellan (2011, p. 441) explain: "Here [from a participatory democracy point of view], communication is not only a part of organizational life but is the inherently political and power-laden foundation by which all understandings of organizational life emerge". The more times I've read the quote, the more I thought: There is a door open for us to move beyond the triad power, dominance, and resistance. This is because their approach highlights the beauty of the ordinary and its role on grounding organisational life. Moreover, Deetz and McClellan (2011) argue for a political foundation to the emergence of organisations through communication. In my [incomplete] point of view, there is a call for a dialogical and intertwined approach. Let's explore it further.

3. Can we think of Deetz's ideas on democratic organising from perspectives where power is not at the centre?

To provide an answer to this question, we propose a dialogue between Bakhtin's notion of act and Ergology's approach to work as a human activity. Finally, we'll [provisory] articulate the ideas, which will help us on our next steps.

A dialogical understanding of a political act in organisations

When Deetz and McClellan (2011) present the idea of meaning making as a political act, I directly interpret the elucidation from the Bakhtinian philosophy lens (Bakhtin, 1999). Bakhtin is well-known for his approach to Dostoevsky's work, and the views around dialogism, carnival, and heteroglossia, among others. Still, the fascinating and foundational in Bakhtin's work emerges with the notion of ethical act.

Bakhtin identified himself as "a philosopher, more than a philologue. I'm a philosopher. I'm a thinker", he explained to Viktor Duvakin, on 22 February 1973 (Bakhtin, 2012, p. 42)[4]. This is important because even if nowadays Bakhtin remains centrally renowned for his contributions to

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[4] I'm referring the translation in Portuguese, which was prepared from the Italian version.

studies on literature and the use of language in daily life, there is a philosophical warp and weft in his conceptual sewing, which is often not given enough credit. The ideas that the 'late' Bakhtin developed are linked to a dialogical philosophy, advanced by the 'young' Bakhtin in association to his comrades from the 'Circle of Bakhtin'.

In the philosophy of otherness, Bakhtin and colleagues argue for a radical responsibility around the act (*postupok*). In their view, act means a doing permeated by ideologies (Ponzio, 2012). At this point, it is important to clarify that "by ideology, we [the Circle] understand the entire set of reflections and interpretations of the social and natural reality that take place in the human brain, fixed through words, drawings, schemes, or other symbolic forms (signs)" (Volochínov, 2013, p. 138). Under the risk of losing some of the text's nuances through the translation from Russian to Portuguese to English, and assuming my ethical act on it, we will explore these ideas further.

Bakhtin (1999) argues that every act conjures the imbrication of two axes: the axis of the world and the axis of life. The axis of the world conveys the culture, what is built and sustained collectively, the dimension of the official ideology. When we act, our act emerges from the existing ideas, values, and perspectives expressed through different signs, such as words, draws, objects, and so on. Our act emerges as a form of reproducibility, featuring homogeneity and centripetal forces around the signs. We take a special responsibility on putting those signs forward because, invariably, we are part of a collective, and we can exist as an individual because we learn and reflect (move forward) with the signs already elected to constituting the collective (Volochínov, 2013).

However, the Bakhtinian (1999) approach to the act do not merely acknowledge the reproduction and the homogenous. The axis of life highlights how we destabilise things through our act. We exist as individuals because we are embedded in a collective, in a cultural ensemble. Yet, we move through the world of the culture in our own terms, reassembling the existing signs in unique, situated, and unreproducible ways. By considering the act an encounter, an in-between the two worlds, Bakhtin shows that we are inevitably part of both, and are also morally responsible for them. This is why ideology, the Circle authors argue, is about refracting or interpreting, and not only reflecting. Ideology is not only the official and broadly established but it emerges and unfolds from/in the daily life. The heterogeneous and centrifugal can only arise from the ordinary because the decision of how to refract (or interpret) the signs is ours; it's situated and defined on the confines of the *here and now* (Bakhtin, 2021; Volochínov, 2013).

The richness of Bakhtin's Circle understanding of the act comes from the postulation that beyond the morality defining the good or the bad, there's a morality of moving forward while staying put, a morality of the otherness. Acting is dialogical because there's no *I* without a *we*. The *I* can exist because interdependent, intersubjective with the *we*. It is a beautiful [and concrete] understanding of how we act in the everyday life. We are not merely reproducing signs that glue collectives together; we are part of the forces destabilising routes and creating new paths.

In that sense, a Bakhtinian perspective (re)invite us to turn the spotlight to **the act**. This is why the notion of activity of work as approached by ergologues (or scholars devoted to Ergology) becomes widely relevant to our discussion in this essay. In the following, we will dive in and navigate the context involving such notion and show how both perspectives help us to consider hybrid working in the context of democratic organising.

A perspective on the human activity of work

Ergology emerged in the 1980's in France as an interdisciplinary *démarche* to understand the world of work. "The university was poor in its culture, poor in comparison to everything that was happening in the world of work" (Schwartz & Mencacci, 2009, p. 13). Through their approaches, ergologues aim to connect the knowledge emerging from theorising to the knowledge engaged in field, where workers find themselves taking decisions at every single moment. More than that, Ergology's ambition is to break the hierarchy between academic and mundane knowledge; break with the hierarchy between those who are to think about work and those who are to perform the work (Schwartz, 2020). As one might notice, ergology dialogues directly with Scientific Management and its principles, which are spread around and softly explored over time by growing approaches to efficiency, productivity, and other forms of quantifying work(ers). Ergologues are guided by such ambitions and have been creating different forms to not only understand work but, *with* workers and *as* workers, transform it.

One of the dearest constructs to ergologues is the one of activity. It arises from the intersection of three core perspectives. First, Alain Wisner's emphasis on the gap between the prescribed work and the real work. While working in a Renault factory, Wisner learned that "there is an enormous distance between what workers are supposed to do and what they actually do" (Wisner, 2008, p. 12). Although we still live in a world supposing that every human act can be detained on rules (and code), and still focus on the layer that can be detailed and

transformed into signs to a reproduction, in the 1960's Wisner already proved us wrong.

Second, Ivar Oddone's approach at Fiat, through an enlarged scientific community, inspired a concrete strategy to bring workers' experience closer to the academic realm. Instead of enforcing the norms and the step by step of working methods, Oddone's team focused on understanding the live heritage embedded in the activity of work. Third, George Canguilhem influenced extensively ergology's understanding of work as a human activity evolving through debates of norms, emphasising *the* rapport between the *human* and the *milieu* (Schwartz, 2020).

The notion of activity, in ergological terms, unveils the interdependence between the collective and the individual, the *milieu* and the *corps-soi5*. According to (Canguilhem, 1952), the milieu is the perceived world, emerging from the limitations on *where (here) and when (now)* we act. It is the stage for the actual human experience. The worker is an enigmatic actor, a *corps-soi*, not constrained by its biology or cultural norms, but constantly debating norms to overcome the imposing limitations *here* and *now*. The workers own the milieu, instead of disappearing within it. This is because as humans, we want to be the masters of our norms. As Canguilhem (1947) more elegantly conveys: "*Tout homme veut être sujet de ses norms*" - *Every person6 wants to be subject to their norms*. We want to assume ownership of our choices. Otherwise, we feel trapped, in a sort of prison that drains our energy (and health). In that sense, ergologues introduce a framework to approach the activity of work articulating three poles: the pole of norms (desadherence7), the pole of the situated (adherence), and the pole of debate (values).

At this point, I believe I have provided enough clues on the essentials of both perspectives, so that we can move to core elements of the dialogue intended in this essay: time and space.

Time-space, the act in the activity of work

So far, we have discussed the notion of ethical act (Bakhtin, 1999; Volochinov, 2013) and human activity of work (Schwartz, 2020). I'm aware of the direct and compact summary I have provided (although one may say it was also excessive). Still, I assume I could make both

notions understandable enough [for now] so that we can appreciate hybrid working as a door towards democratic organising. In that sense, what seems interesting in both approaches is the eternal movement towards different routes depending: a) on how we act and b) on what norms are more evident *here and now*. Although we have already mentioned the temporal and spatial boundaries of the act in activity several times, we waited to this point to explicitly articulate them within the frame we are putting forward.

From Bakhtin, we learned that the ethical act emerges from a philosophy of otherness, where we not only reproduce the existing in the world of culture, but we refract it considering the situated events. From ergology, we learned that the activity of work emerges from debates of norms, which take a form of a choice, and renormalise the milieu. In both cases, the interplay time - space is processual and rhizomatic (not like in Deleuze's terms, of course). Bakhtin and ergologues aim to break with the idea of hierarchies and put the actor on the spotlight. They also recognise the unicity of lived experiences and the impossibility of demarking clear points of start and end of an act or an activity, as they belong to the *other* as much as to the *I*, and the *I*, although unique, only exists on the capacity of existing with others, within a milieu.

A very ordinary example helps us to clarify. We usually have our alarms set up to a specific time, depending on the occasion it will serve. Let's say, you established you must wake up at 7:00 to catch the train at 8:00. You go to bed at 23:30, assuming you will have a restorative night of sleep. However, the opposite happens, and you constantly wake up, concerned with several things, maybe even unrelated to the norm (time to wake and catch the train) you had set up before going to bed. At 7:00 the alarm rings, and you have a decision to take. You can turn it off and get up; you can snooze it for 5 minutes; you can turn it off and stay in bed. Perhaps, many other options are available. The point is: although there is a norm, expressed through the alarm (sign), it's at the here and now (in the example, 7:00), that the *actual* act will take place. It will depend on a debate *where* other norms are considered, weighed, and settled. With Bakhtin and ergologues, we witness a view of time that is both processual and chronological, we witness a view of space that is perceptual and physical. Both perspectives assign some idea of continuity while highlighting the inseparability of time and space as constitutive of our act in activity.

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5 I deliberately kept the term corps-soi (from the French) to avoid overlapping and misunderstanding on the understanding invested by ergologues to involve the worker in discussions around the activity of work. In his text Pourquoi le concept de corps-soi? Corps-soi, activité, expérience, Yves Schwartz (2011, p. 151) explains his choice of using this term: "It is to avoid engaging this e(ort of recentring [or the e(orts invested by workers to reorganise the milieu surrounding them] in too coded issues of the 'subject' and 'subjectivity,' an issue that could neutralize this dimension of a pursuit of life within us, that we have preferred this intentionally obscure term of 'soi'".

6 Adapted to neutral gender in the translation.

7 Instead of translating the term desadherence, I prefer keeping it on its original form.

Summing up...

Through the act, one not only reproduces the world of the culture, the source of norms, the dominant ideology, but interprets it, refracts it. The act in activity is centripetal because sustained on existing signs but it's simultaneously centrifugal due to the arrangement of signs in different ways. New norms emerge, and the act is always open to renovated debates. The act becomes a concrete event through the continuous debates of norms in a situated activity. The view of the ethical act in activity has at its core the interdependence of time and space on setting up the milieu. We foresee events and create norms aiming to frame the spatial-temporal features of a situation. This act, although in adherence, refracts norms in desadherence. We need concepts to exist together; we will reflect standard points because we belong to a normative world. However, we are not confined to it because we can always arrange the tiny things differently and transform the milieu where and when we exist.

Hopefully, the points addressed are sufficiently explained to guide our return to Deetz and McClellan's (2011) participatory democracy perspective. We argue that such perspective of the interactional process in organising can be read from an approach to work as an ethical act emerging from debates of norms. Moreover, understanding hybrid working from such a lens leads to asking different questions and unveiling the complexity involved with this flexible way of working. Let's move on.

4. How do these perspectives help us to understand hybrid working as a democratic way of organising?

We are still looking for a proper definition for hybrid working, one that highlights the complexity involved in this way of working characterised by instability and uncertainty (Haubrich et al., 2023). Although getting to this point still requires strong evidence from concrete data, we can already elaborate on how dealing with uncertainty requires different forms of dialogue. This is why we believe the views on participatory democracy interpreted in the light of the act in activity of work can provide some insights on how dialogues are needed. We identify at least three points for further consideration.

First, if it is not through relations of power, domination, and resistance, how?

If we consider organisations as bureaucratic structures embedded in a neoliberal system, we may approach hybrid working as an individualistic way of organising work. It is about the organisation allowing and empowering employees to choose how they prefer to work. What can we do if our work and relations evolve

mainly through digital channels, thus we can decide all by ourselves while others cannot? We can easily fall into the trap of feeling powerful or harmed depending on which side of the story we are. Moreover, we can fall into the trap of believing we do not need other to perform our work.

If we shift the interest and focus on work, we realise work is a collective effort, and consider the fabric we build together, contributing with one another. We cannot work alone; instead, we depend on others *to* whom we can respond and *with* whom we can share knowledge and learn. When organising for hybrid working, these interactional processes come to light. Finding a fair common ground encourages us to look for others because we need them and because they need us. Acknowledging the importance of our work puts us in a different position, from appraisal to searching for solutions. The arrangements required for hybrid working to work necessitate dialogue and interaction, not to highlight hierarchies but to clarify existing norms and review them, aiming for more democratic solutions where people can find their voices with others. Clarity and connection in the micro context of work host the potential to transform our experience of work, as we own our work, instead of being empowered by the organisation to be part of the organisation.

Second, meaning making as a political act is at the centre

Interactions are at the core of organising for hybrid working, and each act participates in it. Hybrid working materialises from the intersection between what we know and the situations we face. For example, as flexible schedules within teams get more common, it is prerogative for the emergence of processes to a) establish the terms of flexibility and b) let others know how we are doing it. If we can change plans hours before our agreed working schedule, how should we proceed? Hybrid working puts such decision-making processes in the spotlight because they might cause disruptions in the events that constitute work.

Paradoxes also permeate hybrid working. For instance, our choices on how to proceed with our tasks (e.g., individually or with others), where (e.g., from different locations along the week/day, using various apps) and when working (e.g., during the night), might make what we do more visible because we had shared with others, increasing the interactions among colleagues. These choices can also make one less accessible and isolated. In several cases, the "out of the sight, out of the mind" remains a stronger value to organising working practices. As it does in scientific management and its modern forms, handling and assessing these different decisions

can rely on managers, who have the power to lead the unfolding events. Alternatively, and this is at the core of our argument, it can depend on the group in a participatory way, where the members sit together to decide how they will proceed, collaborating on a concrete contract that supports their way of working. Hybrid working opens the opportunity for such collaborative discussions and democratic decision-making.

Third, organising for hybrid working emerges from ordinary acts in the activity of work

Finally, with Deetz and McClellan we learn about the possibility of participatory democracy in organising, while with Bakhtin, we understand the act and with Ergology, we comprehend the activity. In the dialogue, we understand the organising processes emerging from ordinary acts in the activity of work and becoming norms and directives relatively stable. Instead of approaching the organisation as an entity that enforces itself upon or against us, we assume we are part of what constitutes it. The organisation is not a fixed unit where we walk in, through and out. Rather, it reflects a world we belong to through how we refract it in our act. We are all builders of such organising. In that sense, hybrid working can emerge as participatory democratic organising because we acknowledge the act of every actor and how their activity connects to others. A whole new set of norms must emerge to guarantee coordination in a path towards a shared goal.

5. [Provisory] Concluding thoughts

The ideas shared in this essay are yet to be advanced, refined and better imbricated. It is a starting point, indeed. Our act will potentially open new avenues as we interact with the milieu, where editors, readers, and commentators participate in the evolving discussion. We aim to contribute to the literature that focuses on work as the foundational process of organising (Barley & Kunda, 2001). The notion of act in activity introduces an ontology based on the micro dimension of work, one of the choices and the tension of values that mobilise our decision. It depends on a never-ending and dialogical movement between norms we learn from the world and the *here and now*, the situation that requires updates to the norm. The authorship and ownership are evident because the spotlight is on the micro debates we invest in with the different existing norms. The approach we build on the essay invites each of us to consider how what we do evolves mainly around the interactions we constitute with the milieu, with the other.

New ways of working pose adversities and opportunities for studies on democratic organising mainly due to their recursive and creative nature (Aroles et al., 2021). Workers want to break free of bureaucratic structures that seem to imprison their activity by focusing on controlling and fitting the act into digital exhaust (Leonardi, 2021). And in that sense, the irony resides in the extension to which digital devices are the infrastructure for the emergence of new ways of working. Still, a participatory democracy approach to organising for hybrid working highlights the interdependence between us and the milieu. Moreover, it highlights meaning making as a political act, thus anchored on the *situated events*. The imbrication between the axes of culture and life can unfold in different platforms and lead to increased conflicts if we don't come together to set the ground, if we don't focus on the different actors with whom we interact through the micro dynamics of work.

Our goal with this essay is to inspire conversations around what we need for hybrid working to work, remembering that work is a collective effort. The new sets of norms necessary for it are still to be established, and we have the opportunity to learn how to proceed with democratic processes, fostering the participation of all, as what we do is interdependent in a chain of connected acts. Our activities are imbricated, and how we depend on each other can be a stressor to improve how we learn and live together. We don't build norms to limit our act. Instead, the norms we create together may foster our creativity and transform the results of our work. We invest most of our lives in work, doing something that will be delivered to others, often forgetting it also processually defines our worldviews and the values that constitute our act. Hybrid working can be a social game changer because it hosts novel processes yet to be created. What type of profits should we focus on? What does matter for a fairer social world? How do we participate in it? The smallest of the decisions open doors to new routes or new walks. Which ones will we take?

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"There's joy in innovation": exploring the ways of user innovation with Eric von Hippel

Gislene Feiten Haubrich[8]

Abstract

I certainly could select several highlights from this conversation with Prof. Eric von Hippel. Yet, the core message of this dialogue is: find joy in what we do. As often, having the opportunity to talk with experienced academics and scholars with a huge impact in their respective fields is a huge responsibility. It makes me wonder if I can do a good job driving the conversation. Yet, I don't take the steering wheel alone. Along with my partner in the dialogue, we explore different routes without a particular direction. I prepared for this interview full of curiosity, as the topic of innovation seems a fascinating stranger to me. I spoke with dear colleagues who were kind enough to help me find a way of getting the most out of the interview. I want to explicitly thank Lukas Falcke and Katharina Cepa from the KIN Center for Digital Innovation and Stefan Haefliger, president of RGCS, for their support and suggestions. My special thanks, though, go to Prof. Eric for the evoking and thought-provoking conversation! I hope the reading gives you as much joy as recording the interview!

Eric von Hippel is T. Wilson (1953) Professor in Management and Professor of Management of Innovation and Engineering Systems. His research explores the nature and economics of distributed and free innovation. He also develops and teaches about practical methods that individuals, open user communities, and firms can apply to improve their innovation development processes. He recently published a series of videos on Basic Concepts on User Innovation, which is available on YouTube. Enjoy the reading!

Gislene: Thank you very much for your time. We are thrilled to have you with us in this activity for JOCO, the Journal of Openness, Commons and Organising.

Eric: I'm honoured.

Gislene: My first question to you is, can you tell me a little bit about how everything started? When did you start studying innovation and when you realised that that paradigm that we had wasn't good enough that we need something else?

Eric: Basically, it was as soon as I read Schumpeter. I'd always been an inventor for my own purposes, and I've been hanging around the MIT. My father always brought me in from age 12 on. He would drop me off at MIT, in the corridors, and I'd look at what people were doing, and I noticed they were building their own instruments. I absolutely didn't believe it [*Schumpeter's views on innovation*]. And that's how I began to say: 'darn it, we have to show that in fact people are much more empowered than Schumpeter would say'.

Gislene: And how was people's reaction at the time?

Eric: Well, nobody was interested at all in Economics. Not a bit. Because it wasn't what Schumpeter had said. I did because I knew it was true in scientific instruments from first hand. As I say, I did it in scientific instruments first and colleagues just said: 'that's just scientist being scientist: no general interest'. My students were all interested in extreme sports. We did it in extreme sports. And again, my colleagues said: 'oh, everybody knows, they're crazy'. So, it took doing the nationally representative surveys and showing how much user innovation there was; just 10s of millions of people spending 10s of billions of dollars. And then then things began to come around.

Gislene: And what made you keep going at the time, since you knew there was a pressure to saying something else?

Eric: Well, I mean everybody has different motivations. I just knew I was right. I knew I was right, and you know, I grew up in a competitive family with older brothers. So, in addition, I was going to show them wrong, right? So, both motivations were there.

Gislene: And how do you see the paradigm evolving now? Do you think we have shifted a little bit already towards this different mindset, really understanding the role of the user or are we still on the transition to get there? How do you see that things are happening now?

Eric: These are such lovely and interesting questions. I mean, it depends on who you ask. The way I'm positioning it, now there are thousands of colleagues and so on. So, it's penetrating, but it hasn't necessarily penetrated economics. Because they have their stylized facts, they have their chess board, you know. They don't really want it overturned. The way my colleagues and I are presenting it is saying: 'look, there's user innovation and there's also producer innovation, Schumpeterian innovation. So wouldn't it be lovely to study their interaction? What you said is not wrong, it's just incomplete'.

Gislene: And are people taking that well or is it still a struggle?

Eric: You know, one of the things you learn is that nobody ever says that this new thing is right. I mean, I remember

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it was so cute. The same colleague who told me: 'it's absolutely wrong', when I showed him the data from the first national survey, he looked at his watch and said: 'Ah, I'm late for another meeting'. So that's as close as we ever got to... So, one cannot expect people to say... And it's true both sides are right. It's just an added matter which many of us now are thinking is interesting.

Gislene: You said earlier that you grew up in an environment where you saw a lot of people building things and that you're also an innovator. Can you give us an example or share a story about it?

Eric: Actually, it's the usual typical user innovator story. We lived up to New Hampshire in a summer house. My job was to cut the wood for the winter. Of course, I decided that I would build an automated sawmill, right? Because I had a need, and it was much more fun building the sawmill than it was cutting the wood by hand. So yeah, here's an example. You do it too. I'm sure. You know, whenever you sort of sit around and you say: 'oh, I have a problem', you invent something, right. You come up with a solution. It's also behaviours. My daughter, Christiana, she studied behavioural innovation and looked at all the sort of suggestions with respect to childcare. And it was really interesting. It's different than guys. When we study guys, they say: 'oh, yes, I did this wonderful innovation'. When she studied Reddit, the pattern was that mothers typically would pose: 'I'm having a problem'. Whether it's, you know, putting the kid to sleep or whatever it might be, and only then did others volunteer their solutions. So, it had to be evoked by somebody's need. But the innovations were amazing, and they were 98% were mother done.

Gislene: Yeah, that's very interesting! And in that sense, while reading your work and preparing for our conversation, I've watched a video of you exploring the case of the guy who implemented several changes in his hand luggage, to sit over it while moving in the airport. At some moment, you mentioned that a company developed a commercial solution based on his prototype, and that guy was never acknowledged through the process. It got me thinking about the situation where you, as a user, you create a solution and then a company comes takes over and you are forgotten. Can you elaborate on this?

Eric: Yeah, well. That was <u>the story about the electric suitcase invented by the Chinese farmer</u> and then grabbed by luggage companies. In a way, everybody's acting according to their incentives because the advertising department of a company has no incentive to waste valuable space saying so and so invented it. They just say: 'buy our marvellous XYZ'. They don't necessarily claim

they invented it. It's just 'buy our marvels XYZ'. Although, in some foods, nowadays, there's counter examples where much of the advertising copy is sort of the nature: 'my daughter. Ginny needed the following thing, and so I created it with love for you'. But yeah, those are user innovators who become commercialisers. But with respect to your broader question, I think a lot of times users don't care. They're collective innovations. The mountain bike wasn't invented by one person. It was invented by a whole bunch. And so, they're all actually pleased if somebody starts manufacturing their invention, so that they can be biking instead of cutting pipe in their basement. The way it's working out now, it's funny. There were some earlier experiments where companies like Lego would identify an innovating user in Lego's and say: 'Ok, now you're one of us. Here's a t-shirt. Don't talk to your community anymore'. And of course, that was stupid because it's a community innovation thing. Now, what they do, and what many companies do; they reward the collective by, for instance, in sports sponsoring (e.g., Rodeos get togethers, contests). Because then the community as a whole is benefiting, and that seems to work pretty well.

Gislene: I think that's great. It's a very important step forward for us socially. We are more and more living in individualised societies and in this whole discussion about authorship. When we explore this perspective on user innovation, it kind of makes you think about this whole shift that need also happen in that sense.

Eric: Yeah, I agree. And, by the way, if there is an individual user who wants to commercialise it, that's fine. Nobody's stopping them. Burton Snowboards, a lot of these companies specialise biking companies started by a biker. Nobody is saying you can't do it. It is just that others can do it too.

Gislene: Now, let's change a bit the focus. I'm not an expert on the topic, but I'm a curious person. Online, in several forums, there are some debates around open and user innovation. Are they the same thing? How do they differ? How do they complement each other? I thought, since I'm with one of the best people to help me to understand these debates, let's talk about this.

Eric: Well, one thing you can be very sure of is that terms get messed up over time. So, there was the term *open innovation* used for open-source software and so on, where it was open with respect to others being able to use it. No IP, right? Unfortunately, Henry Chesbrough, who is a buddy, no problem. But he came in and called basically closed innovation open. He said: 'look, companies you can buy innovations from outside your company'. What he meant was the boundaries of the firm were porous, but it

was a buying and selling thing. And so that created kind of a mess because all the companies were enormously relieved. They said: 'Hooray! We knew that open was a modern thing to do, and it turns out, we've been doing it all along'. But for those of us in the research community, it was kind of a mess.

Gislene: All these terms, they always come with a lot of background around them. When you start using one of them, and you feel like: 'Ok, but this is not exactly what I mean'. This is problem because we start using terms in different ways. At the same time, it's a very important thing because the way we call things is the way that make we make them exist.

Eric: I agree. So, to explain, user innovation is something developed by somebody to use it. In general, it turns out that because they are developing something to use it, they also give it away. They don't try to patent it because they're not innovating to sell it. They're innovating to use it. And, 80% in in all our household, I don't know if you've seen the book free innovation, but in... by the way, I'm so pleased that I can give it away. I love it. I just love it. And the fun of trying to persuade my publisher. Think how much more you'd sell if you gave it away, right?

Gislene: I would love to hear a little bit more how was convincing the publisher to allow the free access.

Eric: Well, initially, it was true, in the sense that with my first [Democratizing Innovation] and second [Free innovation] book there was still quite a market for hard copy. Now, it's much less true. So, with the last book Free innovation, I think they sold 2000/3000 [hard copy], but there were hundreds of thousands of downloads. Everybody's happy with it. The MIT press is very good that way. They're excited that it's working.

Gislene: Yeah. It's an amazing initiative because we're talking about openness and accessibility and then it's amazing that it's there.

Eric: It makes me happy whenever I see that. Sorry, going back to your question. User innovation means that users do it. They could, if they wanted, patent it. The focus is on using it. Open innovation, from Chesbrough's definition, he and his colleagues are considering acquiring innovations from outside a company or organisation.

Gislene: That's helpful, thanks! Now, thinking about examples of user innovation, besides the one with the hand luggage, which I find fantastic, do you have any other stories you would like to share?

Eric: I can give you a couple. I mean, so of course there are thousands, but two might be of interest. When you think about, for instance, the industrial revolution, you think about a big thing, right? When you think about user innovation, currently you're thinking about 'oh, so and so invented such and such'. But really? User innovation is broader. For example, in Bangladesh where 30% of the people are underwater 30% of the time and they can't farm in the traditional way that they used to. They are inventing specific innovations, but also the general innovation of becoming an aquatic people. You can look at it as individual innovations. For example, they have invented floating fields, made of Hyacinth that floats and with sort of bamboo sticks holding it together and on top of that some manure or something and they grow crops on these floating fields. These are long fields and in between them, they have gaps. They hang netting and they have fish and ducks in there, so they have protein as well. It's a specific innovation, but it's also part of a system they're developing. They're developing floating schools. The whole system, so you can look at it either way.

In the case of specific innovations, patients usually have needs that are beyond what medical companies supply. Because it's a rare disease or whatever. So, what you see are patients developing their own solutions and sharing them. And it can be quite sophisticated. For instance, the first artificial pancreas was invented by the parents of type one diabetic kids. They said: 'hey, this is stupid; the way you do it now, we need to do it better'. 'Oh, I'm a process engineer, I will figure out a way'. The exciting thing about user innovation in the household sector is that everybody who's an expert comes home at night bringing their skills with them. We're not talking about people who don't know much. We're talking about world experts with a problem that they get together on the Internet and solve. It's wonderful and exciting.

Gislene: Indeed, it's amazing. When you have a personal issue, like a health issue or any other thing, it echoes different in you. You cannot wait because until we have a commercial solution because life doesn't wait. You have to go after the solution. It's nice that we have access to a lot of information, and if we learn how to make sense of them, we can build in on something very innovative.

Eric: It comes back to that thing about: should they sell it or give it for free? Of course, if you're inventing with others a better way to help your diabetic kid, you're not going to sell it to others. You give it to others. They post the design on the web, and they help each other. It's cool.

Gislene: That's super cool, and in that sense, I'm curious to hear from you about the current availability of

generative AI tools and user innovation. Do you think that such availability may transform or inspire changes on how we understand user innovation?

Eric: Yeah, it's going to make it better. We've done studies and we've seen, for example, that people use the knowledge they have to innovate. For instance, in biking, the people who invent new bikes are the ones who already have mechanical skills. Nobody's going to sit down and say 'I'm going to learn mechanical skills to modify my bike'. What AI is doing is giving better tools for invention to people. They can say: 'oh, I want code like this'. As you know, you can just verbally state what you want. In the same way, I've been playing with it, to verbally state, for instance: 'I want something. Can you design it for me?' And I can go back and forth just with verbal prompts. So, what's going to do is open up the field to many more people with needs, but with less skills. The second thing it's going to do is allow people much more easily to find other people's innovations. We are now introducing it to the MIT entrepreneurship boot camps, where people come in and they say: 'Ok, I want to learn how to be an entrepreneur. But, Gee, I don't know what to do'. Well, [we ask] 'what are you interested in'? 'X great, let's look on the web, so you know what users have developed in X'. And in 90 seconds you get a list of innovations. It's all going to be amazing. More amazing than even now.

Gislene: Don't you have any concerns in that sense? We have been hearing so many concerns around these GenAI tools.

Eric: Well, I. Yeah. I mean separate matter. Would somebody say: 'oh, how wonderful. I can make an awful virus'. I mean, it's lowering the cost of doing both good and evil. But it's lowering the cost of doing good. Could be a nice focus on the first.

Gislene: Considering what you mentioned earlier, regarding the role of communities and how people develop things together, do you see 'space' as an important component? Not only physical space, but also the digital space, and the mix of both. Which role does the space play in user innovation?

Eric: You know, it's interesting. I have a colleague, Maria Halbinger from CUNY, who studies makerspaces. And, absolutely, physical makerspaces can be great. But also, increasingly, nowadays, you get together virtually. When you're designing something together, whether it's code or a physical thing, you can so easily exchange information because it's digitised.

Suppose you were a surfer, and you developed a surfboard, and you included special curves in it, so that it went through the water better. If somebody was physically there with you - because nobody measured it, right? If somebody was physically there with you, you'd just say: 'feel this curve here'. And the other person says: 'Oh, yeah, got it'. But if it's digitised, everybody sees something as good as the original right on their home screen.

It has always been the case in open-source projects. I've always been fascinated talking to people. People contribute, they work with each other. It's amazing. However, it's unclear to say whether it's a community because sometimes, I said: 'Hey, Fred has disappeared from the contributors list. Do you know anything about him?' And people would say: 'No. Never met him; didn't notice. I don't know if he has a dog. No.' Just disappeared. So, the aspects of community and so on, it's not clear. Certainly, they exist in some areas, but in others it's sort of a joint working thing. Should be explored.

Gislene: Interesting, that's a good point for our conversation since, at RGCS, we are interested in coworking, makerspace and hackerspaces. All these kinds of spaces that gather different communities, specifically working on creating and building something together.

Eric: And you want to study the distinction between onsite and online communities. You know, all these people who were doing the artificial pancreas, they were located in very different places. We can't ignore that.

Gislene: Building on this, the question of openness and how people should (or could) be open to share, can you say something about that? Is it a sort of skill that we should learn [as other skills] to become a user innovator?

Eric: I don't want to dictate morality here. It's really a personal choice. In open-source software, what people have found? And it's true of companies and individuals. They found that to have their innovation supported by others, they have to show it to others. Otherwise, what happens is everybody is modifying things all the time, and nobody knows... your thing and theirs, so they wreck it by what they're doing. It's sort of people following their own moods and interests. And they should do so. I wouldn't want to force anybody to do anything or suggest one way is more moral than the other.

Gislene: I think of it more like a skill because we learn how to be, we don't know those things. We learn then. So, it's a bit of morality, but also a skill.

Eric: And a choice.

Gislene: Indeed. Before we go to our final questions, I would like to hear from you about the future of user innovation. How do you think it will look like?

Eric: Well, I think it's growing and flourishing. I think it's very important than it does: it's empowering for people. One of the things that has always motivated me is: there's joy in innovation. I think, as the tools become better and so on, that people will do more of it. And that's not only an economic benefit, but sort of personal and social benefit. It's huge fun. It's huge fun. We need more fun, right?

Gislene: That's definitely! My final two questions. The first one is when you look back to your career, to your trajectory, what makes you prouder?

Eric: Oh, can I mention one more thing, by the way?

Gislene: Of course.

Eric: With respect to your earlier question. It's not that everybody should innovate any more than everybody should play tennis. Nobody should feel pressure to innovate. It's just, you do it, if you want to. And you can enjoy the fruits of others doing it, if you want to, again, without guilt.

Gislene: Yeah, that's true. I think, when we visualise or materialise products, it makes sense. However, the example you gave me earlier, of a mother who has a child and has some problems which need a solution…We all have all those problems every day. We should innovate, otherwise we will be doing the same thing over and over again and that takes away the joy of life.

Eric: Typically, it's sort of a combination of circumstances that is particular and enables a person to come up with an innovation and that does not imply that they would innovate in general or could or should. For example, do you know those backpacks they wear for water? You know, in sports you have this little tube that comes out? So, you're carrying water in your back instead. If you're a bike rider, for instance, instead of having to reach down and get a water bottle, you know you have this little backpack and you have a tube.

Well, the guy who invented that was a long-distance bike racer in Texas in the summer. He and all the other people in the race had an issue with respect to reaching down, having to lose position, grab the bottle, try to get it back in the bracket while you're racing, right? But he happened to also be an EMT emergency medical technician. And he had brought his truck to the race. He was used to

hydrating people because they all had heat stroke in Texas. So, he had a very close connection with the innovation, and it just happened.

He took one of those bottles of water, and since he had surgical tubing in his truck, he pinned the bag to the back of his shirt, using the tubing. That was the innovation. Now, if he had been an aerodynamics engineer, maybe he would have invented a bike that flew, so that he could shorten the distance. It's not so that you just say: 'Ok, we're going to select a random bunch of users, and they will innovate'.

A) It's choice and preference, and

B) it's skill and the connection to the particular innovation that turns out to work.

That's cool, right? So, no longer do you have to feel obligated to innovate. You can also say, and this is about lead users, who has an incentive to do this thing? And the skills to do it? Let me go and see what they have done. As opposed to "I will sit there and invent everything for myself". That's an advantage of going out and searching. Anyway, so your last question was, what am I proudest of?

Gislene: That was an incredible addition and example! Thanks! Yes, I asked you to share about things in your trajectory which make you proud?

Eric: This is a lovely conversation and you've asked lovely questions. So, I'm really proud of helping to do something that I think benefits people. I mean, if one was doing research on how to fire people, on how might get more effective at it, but it wouldn't be fun. This is really… what makes me so happy is that it's really empowering people. And making it more effective, happier, able to cope for themselves.

Gislene: And how do you do that, teaching people to cope for themselves?

Eric: Well, I evoke it from people. This is true of my PhD students or also my classes. I say, 'what are you interested in?' and, 'What problems have you had?' Then, I ask: 'what have you done to solve it?' For example, in my last class, I asked them about their backpacks, which are commercial things; they all carry around backpacks. And 5% of people, in general, innovate in some way. So, I said: 'well, have you done anything to your backpack?'. Two or three people out of a sixty-person class said yes. 'Why did you do it?', and one says: 'Well, I'm an architecture student and I have these long drawings and the thing sticks out in the rain, and it gets wet. I made myself a cover that does that right'. Or this wonderful kid, he said. 'Well, you know, it's such a pain… I carry around all my electronic gear, and it's such a pain to take it all out of my backpack and charge it. So, I've put a plug into my backpack, and I

plug everything into that, which is inside my backpack, and then I plug my backpack into the wall'. From that, they get the idea that it's something that bothered them. They had a need, and they had the capability to fix it in the way that they did it. And that makes it real. When you teach it, if you teach it, I hope you do, ask them for their own experiences first, and then it'll become real.

Gislene: That's precious advice. So, one last question. I've asked you about what are you proud of and now I have to ask: is there any regrets on the way?

Eric: No, this has been an utter joy. I mean, I just love doing this. I love the excitement. I'm fascinated by the phenomena. Economics operates on stylized facts; producers innovate and so on. The world has changed. We have to go back and look and generate a new set of facts. I've been delighted at being at that level where both I try to understand the phenomenon very deeply and I try to abstract from it. I've had enormous fun. By the way, as I mentioned, my father was a professor too, at MIT. It was so cool.

I graduated from college, and he said: 'Son, come for a walk'. I said, OK, and so we went for a walk. And he said: 'Son, you can do anything you like. You're a free man'. I said: 'great, I'll become an entrepreneur'. He then said: 'son, let me refine that. You can be anything you want as long as you're a professor'. Of course, I went and became an entrepreneur because what son listens to his dad? Eventually, I saw the wisdom of his ways. I just love it. It's a joy.

Gislene: Amazing way to conclude this interview! Thinking about your advice on how to invoke or encourage students to think differently, added to your kind story with your dad: this conversation was absolutely inspiring, full of joy! Thank you very much for your time and for sharing. It was a huge pleasure!

Eric: For me as well, I'm delighted.

Societal and political dimensions of organizations and innovations: Exploring the relevance of the ecosystem

Montserrat Pareja-Eastaway[9]

Abstract

This paper investigates the intricate interplay between societal and political dimensions within organizational ecosystems and their impact on innovation dynamics. Drawing upon interdisciplinary perspectives from organizational theory, innovation studies, and political science, the paper explores how organizations encompass complex societal and political landscapes to foster innovation and sustain competitive advantage. The ecosystem is a multifaceted socio-political space wherein organizations interact with diverse stakeholders, including governments, regulatory bodies, communities, and civil society organizations. By integrating insights from both organizational and political levels of analysis, the mechanisms through which societal and political factors influence organizational innovation strategies, processes, and outcomes are explored.

Keywords: Organizations, innovation, ecosystem, local governance.

Introduction

Organizations play a pivotal role in shaping societal and political landscapes through their innovative endeavours and strategic decisions. The recognition of the interconnectedness of societal and political dimensions allows organizations to enhance their strategic agility, foster sustainable innovation, and contribute positively to societal development. Organisations respond to societal needs and challenges driving innovation to address pressing issues such as sustainability, social inequality, and technological advancements. Organizations as agents of social change, influencing cultural norms, values, and behaviours through their products, services, and corporate practices (Cunningham, n.d.; Lee & Rodríguez-Pose, 2013; Yigitcanlar & Inkinen, 2019).

Political ideologies, regulations and policies organizational strategies and decision-making processes do have an impact on organisations. Lobbying efforts, corporate political activities, and alliances with governmental institutions are visible consequences of the political dimension of organisations and their innovations. The complexities of organizational responses to societal pressures and political dynamics, include strategies for managing stakeholder relationships, mitigating reputational risks, and balancing conflicting interests.

By examining the dynamic relationships between organizations and the broader socio-political context, this essay sheds light on the relevance of territorial ecosystems to tackle challenges for contemporary societies. The importance of adopting a holistic approach to organizational management that considers the societal and political implications of organizational decisions and innovations is crucial to properly engage with key actors conforming the ecosystem. The scale and scope of the ecosystem might vary depending on the nature of actors involved. A vision of an adaptative governance provides a complex but needed understanding of how the ecosystem evolves and adapts to the multiple challenges and impacts organisations, institutions and trajectories have.

The complexities of the various forms of support and promote innovation and creativity in organisations are currently addressed through the ecosystem perspective. An ecosystem is a community of living organisms that live and interact in a specific environment that can be affected by macro shocks. In the case of the innovation and creativity, various stakeholders such as artists, patrons, organizations, institutions, governments, entrepreneurs and sponsors, among others, make up the ecosystem that promotes, supports and develops innovations in the form of different efforts in a given place. Territories, not necessarily defined by their administrative boundaries have become the unit of analysis where the ecosystem perspective takes place.

Thus, economic activity is necessarily associated with the territory, and it is this that becomes a key piece to locate innovation. But territory is more than just the basis for business location, it is a space for interaction, residence, generation of synergies and external effects between agents, emergence and action of institutions and policies. The empowerment of a specific territory with the aim of creating innovation requires the identification of a local context with potential for change and generates a new way of linking it with the rest of the city. The relationship between economy and territory is close in the case of arts, culture and creativity and adopts different expressions depending on the characteristics of both the local environment and the proliferation of certain economic activities.

Innovation support and promotion is no longer just a public issue. The economic and social crisis that developed countries experienced in 2008 and later, during the global COVID-19 pandemics, together with the potential of innovative organisations as a contributor to job generation and sectoral innovation, delineate new boundaries to understand and provide a new range of

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tools and mechanisms to facilitate access to the promotion of these sectors. For instance, the innovation associated with the development of new organisations around the world has a parallelism in the financial system that supports them. Conventional forms of investment are no longer able to identify where resources are needed or how grants or subsidies could adequately achieve the desired objective. Thus, simultaneously with the manifestation of innovative approaches in organisations, creative ways of gathering vital funding have materialized in recent years: since some new practices of innovative production are based on a myriad of bottom-up initiatives, community as a source of ideas has also become a source of support and funding.

In a similar vein, the governance and management models of organizations are diverse. The two extremes of the range would be, on the one hand, the governments that own, manage and finance their resources and facilities, a vertically integrated policy model. And, on the other hand, a shared responsibility with other actors, whether it is the outsourced management of facilities and events by non-profit organizations or independent funds funded organizations.

In the knowledge economy, the leadership of the territory implies that its command keeps together a consortium of potentially independent interests that in turn are those that make up the territory. This is a very different challenge than leading a single organization. The factors to consider when designing a plan with existing actors are, among others, recognizing what type of leadership is sought (top-dow/bottom-up) and how local involvement is achieved. All this will depend on the institutional context, the agency of the individual actors, the political environment and their culture in terms of planning. Innovative territories require innovative administrations. Innovation represents breaking with schemes that align with the 'old' economy. The new economy, the economy of creativity and innovation requires holistic approaches to the problems and opportunities found in the territory and much more flexibility. The classic separation between departments such as Economic Development and Culture represents a barrier to identifying new ideas that, by definition, are difficult to encapsulate under a single area.

The Societal Dimension of Organizations and Innovations

The twenty-first century is characterized by the generalization of economic, social and cultural globalization, which began in the last century due to the proliferation and diffusion of new technologies. The creative economy (UNCTAD, 2008, 2010) or the so-called «cognitive cultural capitalism» (Scott, 2008) identify knowledge, creativity and innovation as the main

resources to improve local competitiveness on the world stage. The flexibility of work, the use of new technologies and the aesthetics of consumption are ingredients that accompany the diffusion of creative and cultural sectors as the epitome of a new revolutionary era in which culture and its values would be the core of this transformation.

The bottom line for the development of actions and programmes to improve, counteract or mitigate the effects of economic growth associated with globalisation has shifted from the international, national or regional sphere to the local urban environment. Supranational organizations such as the United Nations or the European Union effectively articulate a global strategy to promote the benefits of the new economy, but cities, their areas of influence and their interrelationships have become the main units of analysis that must understand, correct or stimulate both the demands and consequences of economic growth and the emerging role of the knowledge economy in this scenario (Pareja-Eastaway, 2018).

The competitive positioning of cities will be determined by the trajectory in their economic development, their resources (both natural and infrastructures), the skills or competencies of their actors and a particular institutional fabric (Musterd & Gritsai, 2013). Faced with the different opportunities offered by local capacities, the objectives and behaviour of economic actors have undergone substantial changes: the economic competitiveness of the past based on price and, therefore, on resources that enable production at a lower cost, has given rise to a "new competitiveness" based on the foundations of creativity, knowledge, quality of life and innovation.

Cultural and creative industries have become increasingly recognized as strategic drivers of competitiveness in the global economy. They leverage intangible assets such as intellectual property, cultural heritage, and artistic talent to generate added value and enhance the competitiveness of nations, cities, and regions. Moreover, these industries often thrive on collaboration, cross-disciplinary exchanges, and the convergence of traditional and digital technologies, leading to innovative products, services, and business models.

The new competitiveness stemming from cultural and creative industries arises from their unique capacity to generate economic value through innovation, creativity, and cultural expression. These industries contribute to economic growth, job creation, and regional development by fostering entrepreneurship, driving technological advancements, and attracting investment. Additionally, they play a crucial role in shaping cultural identity,

promoting diversity, and enhancing the quality of life in societies.

There is no homogeneous approach or a single way to analyse the role of culture, arts and creativity in the territory within the framework of this new competitiveness. The unique trajectory and evolution of the local environment, the governmental distribution of responsibilities, and contextual factors play a key role in defining a national or local government's strategy to promote innovation and creativity as drivers of growth (Jeffcutt, 2004; KEA European Affairs, 2006; KEA European Affairs; PPMI, 2019). In addition, depending on the understanding and definition of what culture it is or how it is represented, the analysis of the mechanisms that promote and stimulate cultural representations expands.   In particular, the specific inclusion and conceptualisation of cultural and creative industries or sectors adds a significant degree of complexity (European Commission, 2013)

The shift towards more flexible economic models of productive specialisation has led to the decline of some economic activities and the rise of others, particularly those that incorporate large endowments of human capital (Musterd, S., M. Bontje, C. Chapain, Z. Murie, 2007). The emergence of the "new economy", where the creative and knowledge sectors are fundamental axes, has determined new formulas for cities to compete, giving a specific and differentiating weight to certain productive factors, that is: talent, innovation and creativity, which become fundamental in the development and success of thrilling and cohesive cities.

The city as an innovative territory becomes a pole of attraction for creative activity, talent and added value. Sectors in which innovation plays a key role emerge as determinant elements in urban economic development and the change of focus and promoting creative activities as an economic engine also expands to the rest of the urban dimension (Pareja-Eastaway & Piqué, 2010).

The Political Dimension of Organizations and Innovations

The emergence of new productive resources in the territory such as creativity determine the emergence of new relationships, complicities and synergies in the territory. The so-called 'ecosystems' appear. The process of forming sustainable creative ecosystems in the local scenario capable of successfully adapting to new circumstances must consider the overall influence of culture and the cultural and creative sectors and their particularities (de Bernard et al., 2022; OECD, 2018). The provision of these ecosystems with adequate resources will require the participation of key actors in the territory, as well as a series of essential tools and instruments to guarantee the future functioning of these unique ecosystems. This requires a deep understanding of how they work, what resources are needed, and what kind of alliances and partnerships take place.

Creativity creates innovation. Innovation represents greater competitiveness. In recent years, there has been a growing interest in knowing what the mechanisms are to create innovation in the territory. The approaches are varied and range from academia to local agents who wish to improve their capacity to generate high added value. Both the concentration of the population in urban areas and the structural change produced in the economic activities found there, make cities the geographical space par excellence, where some of the most important innovative dynamics that affect economic progress, and the well-being of citizens occur. Resilience and / or urban adaptation to this new context will determine the competitive position of the city, as well as the actors that compose it.

For decades, companies and organizations have perceived the need to adapt to this dynamic and changing environment represented by globalization, creating the mechanisms and structures necessary to be competitive in this context. The parameters that fundamentally determine this transformation are based on the need for organizational flexibility, a high dependence on production ecosystems and permanent innovation as a key piece in any survival process. It is precisely in those areas where innovation occurs and uses that production systems have articulated the greatest change: although creativity is understood as a fundamental ingredient of any innovation, the consequences of its application go much further.

Local governments and metropolitan regions seek competitiveness, understood as the capacity to generate economic growth, being creativity and knowledge central to this competitiveness, either as economic sectors in themselves, or as activities that affect and transform other economic sectors. In addition to capital accumulation, society's creative capacity for innovation is increasingly important in achieving the goal of wealth creation and a fairer and more cohesive society. Creativity and innovation have the potential to address social challenges, promote inclusivity, and reduce inequality. By harnessing creativity in areas such as social entrepreneurship, community development, and policy innovation, societies can devise innovative solutions to pressing social issues, improve access to opportunities, and foster greater social cohesion. Moreover, creative expression, cultural diversity, and the arts play a vital role in shaping social identity, fostering empathy, and promoting understanding across

diverse communities, contributing to a more cohesive and inclusive society (Kern, 2014; Moulaert et al., n.d.; Moulaert & Sekia, 2003).

Strategies for managing societal and political pressures: approaching the ecosystem.

The literature of the urban economy as well as the various interventions in the territories study formulas to attract economic activity and dynamism to cities. The different productive specializations have placed different emphasis on what could be used to attract economic activity through organisations or people. While in the nineteenth century the factory location near the rivers was essential for the easy and efficient supply of energy and the industrial expansion of the mid-twentieth century required the accompaniment of large infrastructures to facilitate mobility and connectivity, the knowledge economy and the creative economy will need other attractions. Economic transformation will also translate into social and urban transformation.

Territories, like countries, adapt to the dominant economic pattern. Following (Musterd & Kovács, 2013), two major approaches can be distinguished that contribute to the adaptation of the territory: firstly, the historical trajectory or path dependency, which cannot be modified or intervened and, secondly, theories that involve alterations in the characteristics and resources of the territory: hard factors, soft factors and networks as an object of intervention to improve urban competitiveness.

The historical trajectory refers to the historical development of the economic organization of the territory but also to the impact of organizational structures and social and political institutions. Public policies and their institutions in the past have contributed to shape the current articulation of governance and the trajectory organisations have followed. For instance, extremely subsidised sectors in history such as cultural one have developed a dependency on institutional support which is currently challenging their financial sustainability. The formal and informal institutions of each city are key to understanding business and corporate practices in the field of production, communications and training. The study of the historical urban trajectory in the economic and geographical field shows the importance of events, institutional links and interrelations and the framework of opportunities existing in the territory, but also explains the importance of the presence of talent in the development of companies and clusters.

On the other hand, new forms of cultural production and distribution are emerging, given the democratization of technology and the increase in new social challenges, such

as the achievement of an integrating and diverse society (KEA European Affairs, 2006). Technology is making art and culture more accessible simultaneously by changing the conditions in which it is created, promoted, produced and distributed. New forms of connectivity across a diverse range of platforms have globalized the consumption (and production) of innovation and creativity. The digitization of human life has changed the old paradigm of local cultural consumption, also transforming the territory. The creative territory will have a strong technological component.

Tangible assets drove the expansion of the eminently industrial economy; Currently, tangible investment opportunities will promote growth and prosperity. In the creative and knowledge economy, intangible assets are the main objects of investment and the main sources of value generation and drivers of growth. Organisations, together with the strategic development of tangible and intangible assets, can be the main contributors to a country's economic development (Pratt & Hutton, 2013). In fact, creative and innovative organisations play a key role in the post-pandemic «recovery agenda» (Betzler et al., 2020; OECD, 2020; UNESCO and The World Bank, 2021).

Innovative organisations will be the centrepiece of the creative and knowledge economy (Flew, 2011; Foord, 2009; Jeffcutt & Pratt, 2002; Pratt, 2004). Their ability to create jobs and boost economic growth has received greater emphasis in both academia and policymaking. This is the main reason why attention has been drawn to its capacity to innovate and generate economic development while underlining the complexities related to its operating mechanisms, its capacity for financing and provision of resources, and the transformation of leadership within business organizations.

Business ecosystems in the territory are vitally important to innovative endeavours and creative entrepreneurship. Understood as the set of factors and interdependent actors that together contribute to the emergence of productive entrepreneurship in a particular territory (Audretsch & Belitski, 2021; Stam, 2015), business ecosystems rely heavily on economic, social, and institutional contexts that aim to attract talent and creativity by facilitating interactions and spills between them, opportunities for growth, and creative environments. The word ecosystem has a wide spectrum of interpretations that vary from a fundamentally technical and functional approach to social visions more oriented to the human being and the benefits of a certain quality of urban life. Actors, priorities, resources, and policies become the key components of these ecosystems developing functioning synergies that lead to common goals (Taratori et al., 2021)

Innovation and creativity arise from certain structures of space and time. They are essential components of knowledge in the creative economy, are located in communities and spaces, both local and global, that are connected and linked to a set of dependencies and formal and informal relationships (Jeffcutt, 2004)). Context is key to facilitating or hindering the development of SCCs. The creative ecosystem allows ideas to become innovative goods or services. These ideas should be fostered, developed and also receive some form of financial support.

Innovative ecosystems can be state-driven, market-driven, or any other combination resulting from both, not to mention possible community or audience participation (Anders-Morawska, 2017). In this way, multiple combinations appear at the local level with different leaderships and participations of the key actors in the territory. The strong local roots of innovative ecosystems are challenged by global relations of production. Global-local tension is also reflected at the local level. The diverse actors involved, such as small businesses, large companies, associations, the community and civic groups, are key to building and promoting different forms of innovation in creative ecosystems (Jung et al., 2017)Nourishing the ecosystem becomes essential to enable different creative expressions to occur and thus transforms into creative and cultural industries or sectors. Each sector is different and, despite sharing some basic characteristics, each has its own ecology of labour markets and recruitment networks(Jeffcutt & Pratt, 2002).The configuration of structures useful to promote the creative atmosphere and ensure its survival will be understood as the ecosystem where the efforts of both culture and innovative organisations emerge. Often these structures materialize in a partnership between actors of different natures. Funding proposals, projects and ideas that fuel the innovative ecosystem is very often one of the reasons why these shared commitments are achieved.

Business ecosystems based on knowledge and creation are very sensitive to the capacity of the territory to participate in the needs and singularities of organisations. These create a favourable environment for open interaction between them and with other industries that produce the synergies necessary to improve innovation. The spatial concentration of innovative organisations is attractive to business efforts, as spillover effects of intra-and inter-industry knowledge accelerate the commercialization of new ideas. However, business ecosystems are diverse by nature, encompassing different types of entrepreneurs and business results and their performance with respect to GDP growth or value-added production depends largely on the combination of

existing resources and attracts inputs. Local development contributes directly to national and regional indicators. Endogenous resources are the basis on which local development is based. However, globalization and increasing internationalization of resources has forced local agendas to consider their own capacities to attract and retain other key means of development. This is the case, for example, of talent or creativity.

The creation of new creative urban districts is much more complex and linked to the characteristics of the territory as opposed to the development of flagship projects such as a new museum or a new technology laboratory, much more limited in their ambitions. More diverse ambitions for new urban districts and greater attention to more sustainable approaches determine the need for strong leadership. The physical, economic and social characteristics inherent in areas of renewal pose sets of particularly complex leadership challenges for planners and policy makers. For these reasons, planning these creative territories or districts in a way that combines the economic vitality of social and environmental sustainability requires sophisticated and proactive leadership. This has been the case, for example, of the 22@ project in Barcelona, where, after an intervention very directed from above in urban and economic terms, it has proceeded to a reconfiguration of leaderships and a change in governance strategy, involving more actors in the territory such as the association of companies or neighbours (Pareja-Eastaway & Piqué, 2022).

22@Barcelona, district of innovation.
The 22@Barcelona district, situated in the heart of Barcelona, has emerged as a vibrant hub of innovation, creativity, and technological advancement. Originally an industrial area characterized by abandoned factories and warehouses, the district underwent a remarkable transformation led by the local government in the early 2000s into a dynamic knowledge-based ecosystem. The 22@Barcelona project sought to revitalize the area by leveraging its industrial heritage and strategic location to create a thriving innovation district. Through strategic urban planning and investment in infrastructures the district was reimagined as a mixed-use zone, a compact city, that combines cutting-edge research facilities, modern office spaces, residential developments, and cultural amenities. Start-ups, multinational corporations, research institutions, institutional agencies, and creative industries coexist and collaborate, fostering a culture of innovation and entrepreneurship.

At the heart of the 22@Barcelona district's success lies its ability to foster collaboration and knowledge exchange across diverse sectors and disciplines, particularly after 2015. The district has become a magnet for talent,

attracting skilled professionals, researchers, and entrepreneurs from around the world who are drawn to its vibrant ecosystem and opportunities for collaboration. With its concentration of technology parks, business incubators, co-working spaces, and networking events, the district provides fertile ground for innovation-driven enterprises to thrive. Moreover, the presence of leading research institutions, universities, and R&D centers contributes to a rich ecosystem of knowledge creation and transfer. This collaborative environment is further enhanced by the district's commitment to sustainability, with green spaces, pedestrian-friendly streets, and eco-friendly infrastructure initiatives that promote a healthy and vibrant urban lifestyle. As a result, the 22@Barcelona district has emerged as a global model for urban innovation, demonstrating how strategic planning, public-private partnerships, and a culture of collaboration can drive economic growth, foster social inclusion, and enhance the quality of life in cities.

Critical voices during the first period of development forced the change in pathways with respect to the articulation of governance in the district. Since 2018, an agreement between institutions, resident's associations, networks of organisations, activists, and research centres envisaged a renewed commitment to take into account all actors interests in the district.

For the ecosystem to be successful, the combination of actors' goals must be sustainable over time and resilient to possible changes in external and internal conditions. Given the enormous diversity that exists in innovative endeavours in terms of size, leadership in the sector and market position, the functioning of their ecosystems must respond to their differences. The new alliances between public and private actors have emerged as determinants of the success of the realization of projects. However, these partnerships might not necessarily work well. There is a process of developing knowledge and trust that cannot be avoided. "If arts organizations are careful to select appropriate partners, if contributors have similar or complementary goals, and if the relationship is successfully managed, strategic collaborations can help participants achieve their organizational goals and better manage their financial, human and physical resources" (Scheff & Kotler, 1996, p. 62).

Enhancing institutional actions and organisations activities.

The local administration's direct connection to the territory enables them to grasp the needs of the community and provide opportunities for residents, fostering inclusive innovation that isn't solely reliant on economic success or participation rates.

Innovation within local government involves taking risks, akin to those encountered by businesses, underscoring the significance of embracing experimentation and learning from failure to drive progress. Contrary to common belief, innovative administrations aren't exclusive to areas grappling with employment issues or stagnation; in fact, they can play a pivotal role in rejuvenating regions and fostering growth through creativity and innovation. Agility in administration extends beyond infrastructure development, encompassing the identification and support of knowledge communities even in the absence of formal associations, highlighting the need for flexibility and adaptability in addressing community needs.

The ability of local administrations to efficiently attract resources and ideas enhances their role in positioning the city as a hub for innovation and creativity, ultimately contributing to its economic and social development. Establishing early alliances and partnerships in project development streamlines the process and increases the likelihood of project success, emphasizing the importance of collaboration in driving innovation. In addition, administering support for idea prototyping, particularly in collaboration with cooperatives or the social economy, can lead to the development of impactful projects that address community needs and promote local development.

Adequate resource allocation is essential for implementing innovative projects, especially when they have a broader impact beyond the scope of a single local administration, underscoring the importance of securing necessary resources to support innovation-driven initiatives.

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Artificial intelligence and the changing costs and benefits of engaging in open and collaborative science

Susanne Beck and Marion Poetz[10]

Rooted in the core values of accessibility, transparency, and inclusivity (Vicente-Sáez & Martínez-Fuentes, 2018), the open science movement advocates for openly sharing scientific knowledge as early in the research process and as widely as possible. Related practices of open access publishing or managing and sharing research data along the lines of the FAIR principles are increasingly adopted by scientific research institutions and scientists across the globe and required by major funding programs such as Horizon Europe. The underlying conceptualization of openness mainly refers to *unidirectional knowledge flows* within science and from science to different levels and actors of an inquiring society. Recent studies on the benefits of openly and widely sharing research outcomes reveal that open access publications significantly broaden citation diversity across institutions, countries, and research fields (Huang et al., 2024), and are more frequently cited in patents (Probst et al., 2023). However, there remains a lack of conclusive evidence on the causal effects on research productivity and societal benefits.

As a remedy to the steady decline in scientific productivity over the past decades (e.g., Park, Leahey & Funk, 2023) and to better align research agendas with increasingly complex societal, health, environmental, cultural, political, or economic issues (e.g., Mazzucato, 2018), conceptualizations and definitions of open science increasingly emphasize openness as a means to foster collaboration (e.g., UNESCO, 2022); indicating a shift towards *bidirectional knowledge flows* for opening up the scientific knowledge production process itself. The concept of Open Innovation in Science (OIS) builds on this and more broadly encompasses inter- and transdisciplinary knowledge flows and collaborations along the entire process of generating and translating scientific research (Beck, Bergenholtz et al., 2022). More specifically, it outlines how and under what conditions practices such as crowd science or citizen science, open data reuse, or open forms of university-industry co-creation can improve the scientific productivity and the societal impact of research projects (Poetz et al., 2024).

Navigating the costs and benefits of engaging in open and collaborative science practices

When applying this framework to study antecedents, boundary conditions and effects of openness and collaboration in science (e.g., Beck et al. 2022, Beck, LaFlamme & Poetz, 2022) or using it to help participants in our Labs for Open Innovation in Science to develop their own OIS projects, we observed a consistent pattern across scientific fields and seniority levels: Researchers frequently view open and collaborative practices as additional efforts that must be undertaken "on top" of their regular duties, largely independent of whether these practices are mandated by institutional or funding requirements or driven by personal motivation. While many researchers had already adopted key open science practices such as pre-registrations of study designs or open access publishing, opening their own knowledge production processes is less common and sometimes viewed as particularly critical with respect to on-top efforts that may not translate into scientific productivity and related career advancements. This is particularly salient when it comes to engaging in transdisciplinary collaborations with companies, citizens, or other societal stakeholders. To put it differently, many scientists we worked with or talked to focus on the costs but often do not see enough benefits for their own projects or careers. Such benefits can, for example, be reflected in increased novelty or relevance of their research questions or hypotheses, improved quality or quantity of their research data, reduced biases in interpreting results, or new pathways to translating their research outcomes into novel applications in business or society. Yet, *researchers' cost-benefit assessments* frequently indicate a disinclination towards engaging in inter- and transdisciplinary collaborations due to potentially higher resource requirements for coordination, increased risk of project failure, reduced chances of securing funding or publication, and potential drawbacks in light of the prevailing approaches for evaluating scientific research impact and individual scientists' performance.

AI's role in shaping costs and benefits of opening the scientific knowledge production process

Considering the swift and transformative rise of artificial intelligence (AI), its widespread accessibility and its profound impact on the workflows in scientific knowledge production (Wang, Fu et al., 2023), we find it compelling to examine the ways in which AI is reshaping researchers' cost-benefit evaluations of opening up their knowledge production processes by engaging with external collaborators. A historical perspective reveals that analytical AI has already been altering scientific practices for decades (Gillies, 1996), particularly in the natural sciences where large amounts of data needed to be processed and analyzed to push the knowledge frontier (Wang & Barabási, 2021). While this change resulted in reduced time and resource investments required for data processing and analysis, and overall accelerated scientific

[10] In the order of appearance: Warwick Business School, Information Systems Management & Analytics Group - Copenhagen Business School, Department of Strategy and Innovation.

discovery, analytical AI also became more adept at handling complex datasets and simulations. As a result, also the costs of engaging in open scientific collaboration decreased, encouraging more scientists to join large collaborative initiatives such as the Human Genome Project (Libbrecht & Noble, 2015).

The emergence of generative AI (GenAI), however, could transform the benefits and costs of engaging in open and collaborative science practices at a much greater scale (Beck, Poetz & Sauermann, 2022). First, because its transformative potential applies to many more stages in the scientific knowledge production process than data processing and analysis. This includes ideation, literature and theory work, the development of research questions, hypotheses or proposals, the research design and the development of methods and materials, codification and writing processes, dissemination and – under certain conditions – even the data collection process itself (Wang, Lin & Shao, 2023). Second, GenAI is comparably easy to access to every scholar with an internet connection. And third, these changes in the scientific practice have expanded beyond the natural sciences and strongly also affect the social sciences and the humanities (e.g., Dell'Acqua et al., 2023).

Considering the different roles AI can play in scientific research projects may be a helpful starting point to discuss changes in the costs and benefits of engaging in open and collaborative science (Agrawal, Gans & Goldfarb, 2023; Kellogg, Valentine & Christin, 2020; Koehler & Sauermann, 2023). First, AI can take over tasks across different stages of the research process that are traditionally performed by scientists and/or their external collaborators (role of AI: *automation*). This reduces the benefits of collaborating with others on such tasks, for example, when AI assumes roles like image classification or protein structure prediction that were previously carried out by citizen scientists on crowd science platforms like Zooniverse or Foldit (Franzoni, Poetz & Sauermann, 2022; Boussioux et al., 2023). AI might also reduce the costs of filtering external knowledge and preference inputs for setting a research project's agenda, for example, when scientists engage in crowdsourcing research questions among citizens, patients or other societal stakeholders (Beck et al 2022a). On the other hand, automating simpler tasks may free-up researchers' capacities to intensively engage with external collaborators for addressing highly complex tasks, where recombining human intelligence still outperforms the capabilities of AI. Automating research tasks can, however, also increase the costs of open and collaborative science: As AI can produce new insights or data itself, determining the ownership and proper credit for AI-generated contributions as well as considering

confidentiality issues might, for example, become more complex, introducing new challenges in collaborative projects and related costs for mitigating them. This can particularly be an issue when the collaborators come from different institutions or countries with varying regulatory and legal frameworks.

Second, AI can support researchers and/or their external collaborators in performing their tasks by decreasing the effort needed, enhancing the quality of outcomes, or accelerating the completion of tasks (role of AI: *augmentation*). Providing access to vast amounts of existing bodies of knowledge in diverse fields of research and practice as well as insights into and interpretations of data that might not be immediately apparent to human researchers can, for example, enrich discussions and inspire novel hypotheses in existing collaborative projects. Furthermore, it may facilitate the recombination of knowledge across disciplines both within and beyond academia, fostering research ideas that might not only be more innovative but also of greater societal relevance. AI can additionally empower a wider range of scientists, including researchers from resource-limited settings and citizen scientists, to contribute more meaningfully to scientific collaborations, and assist researchers in finding and reusing knowledge and data from diverse and distant sources and identifying collaborators from different fields within and across academia more efficiently. Moreover, AI can increase the benefits and reduce the costs of engaging in science communication activities as it aids in more effectively disseminating knowledge to non-academic audiences, for instance, by crafting easily comprehensible summaries of scientific studies for citizens, policymakers, or other stakeholder groups. In addition to supporting different tasks in the scientific research process, AI can help researchers with facilitating larger-scale collaborations more efficiently by, for example, synthesizing, integrating, and sharing distributed findings from diverse collaborators within and across academia and allocating tasks to those with the required skills or motivations (algorithmic management).

Although these factors highlight AI's capacity to amplify the benefits and minimize the costs of openness and collaboration in the scientific knowledge production process, they also hint at potential additional costs related to maintaining data quality and preventing a skills gap in collaborative projects. Collaborative science projects that rely on shared datasets might, for example, face challenges when exposing the data to AI for exploratory analysis. As ensuring the quality and reliability of AI-generated insights is crucial, collaborators might be required to establish consensus on verifying and validating AI contributions, which could introduce additional steps and complexities in the

collaboration process. Furthermore, there's a risk that not all researchers will have equal access to or familiarity with AI tools, potentially creating a skills gap that could either hinder some researchers from fully participating or require substantially bigger efforts to do so.

Independently of whether AI automates or augments task of collaborators in scientific knowledge production, researchers may need to consider potential costs arising from the way AI works: When trained on biased data and powered by opaque algorithms, AI systems risk reinforcing or exacerbating biases in both, performing specific research tasks, and algorithmically managing collaborative projects. Ensuring ethical use and addressing biases in AI becomes an additional responsibility for collaborative teams, requiring vigilance and potentially more resources.

Although this discussion on the way AI potentially changes cost-benefit assessment of engaging in open and collaborative science is far from comprehensive, we hope it serves as starting point to more systematically think about how and at what stages in the process of generating and translating new scientific insight AI can increase the benefits and reduce the costs of inter- and transdisciplinary knowledge flows and collaborations, either by means of automating tasks or by augmenting human contributions (Beck, Poetz & Sauermann, 2022). Additionally, it may help understand when and why AI may even be a more effective knowledge actor than human collaborators or, on the other hand, potentially reduces the likelihood of achieving outlier creativity (Dell'Acqua et al., 2023).

Boundary conditions for AI's cost-benefit optimization in open and collaborative science

Following the preceding discussion, it is important to think about necessary boundary conditions to leverage the benefits and mitigate potential costs. To what extent researchers will be able to experience a better or worse cost-benefit ratio may depend on boundary conditions on the individual, organizational, and system level. On the *individual level*, scientists' ability to take advantage of the outputs generated by AI and to integrate them with their own knowledge might depend on their "cognitive complexity", i.e., their individual ability to understand the world in more complex ways, to internalize knowledge from multiple fields of science, and to observe and understand the connections between phenomena in different fields (Hollingsworth, 2007). Scientists with higher levels of cognitive complexity might be more likely to be able to connect to and internalize diverse and potentially distant AI outputs (Jia et al., 2023). Also, it is likely that scientists with a proficiency in an AI's operational intricacies and foundational mechanisms can

be more critical towards AI-generated outputs (Wang, Fu et al., 2023), thus preventing them from falling for GenAI's "hallucinations" or pursuing paths that are based on flawed or incomplete data (Lebovitz, Lifshitz-Assaf & Levina, 2022).

Furthermore, the adoption of new practices critically depends on being considered legitimate (Bitektine & Haack, 2015). Whether or not individual researchers judge a new practice to be legitimate in a given setting (e.g., using AI for open and collaborative research) depends on their perceived propriety, i.e., the strategic importance and value complementarity of a new practice for achieving their goals, as well as the perceived validity, i.e., the perception that key social referents (e.g., funding organizations, peers, policymakers) regard the new practice as desirable by interpreting validity cues (Jacqueminet & Durand, 2020). The lack of either of the two legitimacy dimensions will increase the (perceived) costs and decrease the (perceived) benefits. For instance, scientists may fear reputation or even career threats if using GenAI for collaboratively working with citizens on developing hypotheses for a research project, if this application of GenAI is not considered desirable by their promotion committee or funding organization.

On the *organizational level*, access to resources and support structures might be particularly relevant boundary conditions (Beck, LaFlamme & Poetz). To utilize AI effectively, resources are needed to provide appropriate training for researchers, access to licenses, or potential investments in adapting easily accessible AI tools such as ChatGPT or using more specialized ones as well as the computational power required to operate them. Researchers with access to these resources will be able to leverage the capabilities of AI and may embrace the possibilities for improving the cost-benefit ratio of engaging in open and collaborative practices better than those without access, as their (perceived) costs decrease. In a similar vein, organizational support structures have the potential to alleviate the associated costs of using AI for engaging in open and collaborative research. For example, the use of AI tools for inter-organizational collaborations likely requires formal agreements for data usage, etc., increasing the costs of such a collaborative endeavor. If a dedicated support service is empowered to handle the necessary formalities, researchers will be able to increase their (perceived) net benefit.

Finally, researchers across disciplines are discussing how regulatory frameworks on the *systems level* may influence the use of AI in science (Birhane et al., 2023). Such frameworks related to, for example, intellectual property rights, data protection and data reuse, the availability of human-generated training data and the pace of

technological advancements will influence whether the use of AI increases or reduces the benefits and costs of engaging in open and collaborative science practices.

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