



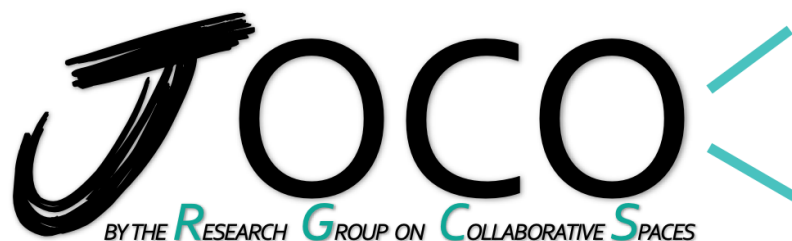
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Organizing democratic space: The end of continuum?

François-Xavier de Vaujany¹

Abstract

This essay highlights a fundamental hesitation in the democratic space of contemporary societies and organizations. It focuses on the powerful role of the hemicycle and its right-left continuum in French practices of political representation. Over the last thirty years, this spatial commonality has obviously been challenged both in society and in organizations. And digital technologies have reinforced this trend. But what could be the alternative topology for democratic debates in legislative assemblies and organizational decision-making processes?

Keywords: democracy; democratic spaces; representation; hemicycle; continuum; commons; eventfulness; mandate; management; history of management; governance; organizations.

Right or left? In the French political landscape, this remains the most fundamental question. But what do right and left mean in today's democratic space?

For almost fifteen years, I've been researching questions of space and time, exploring their links with organizational dynamics. This problem of political geography is perhaps the most fundamental of all, not only for the political life of our societies, but also for our organizations and their modes of governance.

1. The hemicycle poses a world of continuities that is now being questioned...

Let's remember a too often forgotten history. In France, this topology is particularly meaningful in the context of the assembly where the debates of our democracy "take place": the hemicycle (see Gauchet, 1995, 2021; Le Bohec and Le Digol, 2012; Mossuz-Lavau, 2020). The famous inventor of the guillotine and the petition, Joseph-Ignace Guillotin, is less well known for his role in designing the hemicycle of the Palais Bourbon (an archetype of democratic spatiality alongside other forms such as the rectangular hall of the English in Westminster). His idea, implemented by Jules de Joly, was to bring the deputies together in a semicircular space so that everyone could see everyone else and cross-pollinate. This practice made it possible to move away from the binary space of "red" or "white" that was still in use until the Restoration, and to move towards more spatially "operational" categories in the organization of debates (Gauchet, 2021).

To be right or left is to be more or less to the right or left of the democratic space. But to the right or left of whom or what? Of the president of this assembly (there was a

time when you were right or left of the king's hand). Above all, right and left are a way of organizing debate and speech. This truism has several implications. First, this geography is part of a personalized political spatiality. You need a point of view to arrive at these places, an overhanging actor staring you in the face with her desk at the center of this hemicycle. To be on the left or on the right is to let a subjective, arbitrated spatiality speak for itself. Above all, it means entering into a logic of position, neighborhood, and continuous axis to locate and oppose parties, ideas, and individuals throughout the hemicycle.

But at a time when some within the extreme right are developing so-called "more social" discourses, when others are claiming to be "both right and left", when part of the "offer" is being "thematized", at a time when the center is no longer centered, when the historical parties of parliamentary geography are sinking, and when some are contesting the entire space and its constitution from within the discussions themselves (this is nothing new), the old topology that ordered debates along a horizontal axis of words is collapsing. Each person creates his or her own topology, abandoning the commonality of the hemicycle, the space at the heart of the political practices and imaginations of the whole of society. We are slipping from the continuum to the archipelago, or even to the poles.

For a long time, the logic behind the location of this space has been problematic, with its ambiguities and even inequalities, but without questioning the democratic effectiveness of the whole. Within the same group, you can be more to the right or more to the left. In all groups, you can also be higher up, with the eyes of the president within your reach (or, in revolutionary times, the voice of the people) if you're in the back row. You can also be at the bottom, near the pit and the ministerial bench. Or you may sit in a more or less prestigious position, bearing the gilded plaque of an illustrious predecessor. In all cases, the room is less linear than it appears. It is even more 'Riemannian' than ever, in the sense that we know (although...) what it means to be close to two members of the same group, but not necessarily what it means to be close to two different groups.

Long before space and place, the Assembly is made up of rhythms and events, as every Member knows well. Political and budgetary cycles, the rebroadcast of debates, the vote on a controversial text, the presence of an international guest, all give the debates a particular eventfulness. The continuous archiving of central and peripheral exchanges, the development of dressing rooms

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for journalists, the installation of cameras, and then social networks have gradually changed the sacredness of the sessions around these events. The democratic space has gradually found its place in the society of the spectacle (see Debord, 1967, 2018). Now, more than ever, MPs have to “make the news”. Initially the site of a logo (even a sophist one), the parliament is drifting inexorably towards the stage, the image and the gesture, all of which are immediately connected to the entire public space. This new semiotics is less easily ordered in the rational space of the hemicycle.

Over the last thirty years, it is tempting to point to a hesitation on the part of the democratic space itself: to reconnect with original continuities and collectively clarified inscriptions on the meaning of “more or less left”, “more or less right” in a world of language; to develop new topologies for the political space of representation (but which ones? For which spatial commons?). And this hesitation is not limited to the French National Assembly and its debates.

2. From parliament to business and the world of work...

Surprisingly, the question of democratic space and its topologies for legislation is the same in the context of companies and organizations in general. We forget to what extent the history of our modern democracies and the history of management are connected. If democracy is the history of the development of practices and processes that represent the people (with the mandate in particular), then the managerial society of managers is also a representative process. After feudal pre-capitalism and then owner capitalism, we have long since entered “managerial capitalism” (Burnham, 1941; de Vaujany, 2022, 2024). Managers (who do not own the means of production) have a mandate to make decisions. The organization itself is a form of mandate and delegation of this mandate. This phenomenon accelerated with the war and the 40s. In this sense, management as a whole is a representation of the world, of stakeholders, markets, customers and employees, through its techniques in search of correspondences with a reality to be controlled.

And the democratic spaces of management, initially very logos-oriented, are also experiencing a crisis linked to the evolution of representations that are increasingly realistic, visual and intelligent. For management, as for politics, the question of how to articulate the continuities of the representative (we mandate with a clear direction for the future - a course) and the discontinuities of the participative (we listen to the evolving expectations and desires of stakeholders who are given the opportunity to make local decisions) is essential.

Today, the places of democratic life in organizations are in crisis, as are the places of legislative debate. The boardroom, the CEO's office, the space of general meetings, the moments when managers and workers meet, the so-called decision-making processes and their digitalization, represent only their own world in spaces of problematic continuities. In the wake of the pandemic, Zoom and Teams have become the new hemicycles of management. This is not without its problems. *Through a visual experience, we are all under the dangerous illusion of seeing the world centered and ordered around our own person (forgetting that the spectacle offered to others is always different)*. Digital continuities are egocentric and in no way contribute to spatial commonality. Everyone is in the central, overhanging position of the president of his or her hemicycle. Moreover, joining a democratic discussion on a digital platform becomes an instantaneous, effortless process, positioning everyone in a space whose functioning is linked to algorithms that are opaque in their presuppositions of continuity to egos and hermetic to substantive reconfigurations. Within this digital framework, democratic space and public space merge, and the grand order of debates eludes us.

Parallel to mandated decisions, participatory democracy in organizations is becoming ad hoc, clandestine, often supported by other opaque platforms (social networks), and its points of encounter with representative democracy are here too radical conflicts arriving late. Too late. In the end, everyone suffers. No one feels that he or she is an actor in his or her organization. And an AI or a platform, which are often individualizing universes, will never in themselves constitute a democratic space.

The problems of democratizing management and our legislative actors also come into focus in the context of major societal challenges. How can we give voice to a suffering planet, to non-humans, to shifting categories, to invisible actors? How should democratic space be organized, and with what kind of continuities? How do we combine order and plurality? How can we articulate representative continuities with participatory discontinuities in all forms of collective activity or coexistence in our societies?

3. To leave or not to leave a world of continuities? The great democratic hesitation of the moment

Fortunately, the death penalty and the instrument that Joseph-Ignace Guillotin had in mind have been abolished. But what about his political legacy?

Perhaps we need to reconnect with the deeper meaning of this spatial and temporal machine of the hemicycle, whose benefits for our democracies and organizations have been so obvious (notably in building majorities and

helping to project political conversations). Everything must then be done to restore a democratic nuance and the very logic of continuities at the service of a spatial commonality.

On the contrary, perhaps we need to abolish or radically rethink the current vision of our democratic spaces, both in parliament and in the economy. If, as John Dewey put it, democracy must be a “permanent experiment” (Sabel, 2012), we need a new topology that rebalances the practices of participatory and representative democracies (which today are in simple conflict) and reopens our systems to experimentation². In this logic, we must reorganize our democratic space beyond a republic of experts and great witnesses (sometimes summoned to committee rooms in the basement of a building annexed to the Assembly). In addition to an office where the deputy returns to her constituency, the assembly itself and its committees should sometimes come to the towns outside Paris (beware of the temptation of the umpteenth digital platform...). Breaking with the very geometric logic of the hemicycle (and certain executive practices), perhaps we should imagine a more open space, fixed, sometimes disconnected, and in regular dialogue with intermediate social bodies? But at the risk of transforming our representative democracies into particularly unstable and fragmented participatory democracies.

In any case, it is urgent to overcome this reluctance in our representative spaces, both legislative and organizational. In order to preserve a common good that is more than ever at risk in organizations and in society: our democracy.

References

- Burnham, J. (1941). *The Managerial Revolution: What is Happening in the World*, New York: John Day Co.
- Debord, G. (1967, 2018). *La Société du spectacle*, Paris : Gallimard, coll. « Folio » essais.
- de Vaujany, FX ; (2022). *Apocalypse managériale : promenade à Manhattan de 1941 à 1946*, Paris : Les Belles Lettres.
- de Vaujany, FX. (2024). *The rise of digital management: from industrial mobilization to platform capitalism*, NY: Routledge.
- Gauchet, M. (1995). *La Révolution des pouvoirs: La souveraineté, le peuple et la représentation (1789-1799)*. Paris : Gallimard.
- Gauchet, M. (2021). *La droite et la gauche: histoire et destin*. Paris : Gallimard.
- Hoskyns, T. (2014). *The empty place: Democracy and public space*. London: Routledge.
- Le Bohec, J., & Le Digol, C. (2012). *Gauche/droite. Genèse d'un clivage politique*. Paris : PUF.
- Mossuz-Lavau, J. (2020). *Le clivage droite-gauche: Toute une histoire*. Presses de Sciences Po.

- Sabel, C. (2012). Dewey, democracy, and democratic experimentalism. *Contemporary pragmatism*, 9(2), 35-55.

² See the work of Hoskyns (2014) on these issues. Perhaps the emptying of a space is a prerequisite for a good democratic conversation? Perhaps democratic discussions and decisions should take place in public spaces? But what about their institutionalization?

From Explainable AI to Explaining to AI (X2AI): Representational Practices in AI at Work

Ella Hafermalz, Marleen Huysman & Jana Retkowsky³

Abstract

This paper introduces the concept of "Explaining to AI" (X2AI) in the context of organizational and work environments, contrasting it with traditional "Explainable AI" (XAI). While XAI focuses on making AI systems transparent to human users, X2AI emphasizes the interactions where humans explain themselves to AI, specifically through representational practices of training, prompting, and feeding AI models. This shift highlights the political dimensions of representation and recognition within AI systems, stressing the need for AI to understand human contexts and identities. We discuss the implications of these representational practices for work and organizational studies, proposing future research avenues to address the sociotechnical dynamics of AI integration in workplaces in a way that goes beyond traditional emphases on transparency as an antidote to opacity.

Keywords: Explainable AI, XAI, recognition, transparency, future of work, Artificial Intelligence, Generative AI

Over the past decade, a key response to ethical concerns over the opacity of AI systems has been the need for "Explainable AI" (XAI). Explainable AI refers to the demand for AI models to be interpretable by human users, either by simplifying how AI systems work or by adding additional techniques that make the processes of such models inspectable and intelligible to developers, auditors, end users, and/or decision subjects. We have previously reflected on how XAI initiatives are often divided and talk past each other (Hafermalz & Huysman, 2022). Demands from policy makers and ethics commentators such as the European Commission have tended to diverge from the concerns and capabilities of technical developments emerging from, for example, DARPA's Explainable AI project.

A further concern that we raised at the time was how XAI conversations missed, and could benefit from, an added organizational perspective. Our point was that AI systems are often deployed in the context of work and organizing, yet both ethical and technical XAI initiatives tend to imagine a consumer context when developing solutions and policies. Therefore, they tend to assume that consumers will only interact with these systems in simplistic or indirect ways, for example taking advice from a probabilistic recommendation (such as a recommendation to watch a film or buy a product), or be a 'decision subject' of for example a positive or negative recommendation from a loan calculation. In this way it is

often assumed that a consumer will simply 'accept' or 'reject' an AI system, which overlooks the socio-technical process of interacting with technology, particularly in the context of work, a perspective that we term "AI at Work".

Two years later, we maintain this position that efforts to make AI more transparent and explainable are important, and that this conversation deserves attention and contribution from the work and organizational studies research community. Yet we as a community and as a public are now *also* confronted with a new suite of Generative AI technologies that forces us to reconsider key assumptions, agendas, and recommendations for advancing research on AI at Work. If we look to policy makers concerned with the ethical implications of Generative AI technologies, such as the European Parliament's 2024 Artificial Intelligence Act, we again see an emphasis on transparency as a way to hold systems and the companies that run them to account (European Parliament, 2024). In addition to such concerns, and also in response to the unique qualities of Generative AI and its rapidly spreading role in work and organizations, we take this opportunity to outline a new concept that builds on previous Explainable AI conversations from an alternative ethical basis: *Explaining to AI* (X2AI).

Previous 'discriminatory' AI models provoked ethical concerns around transparency, which were met with a need for the model to be explained. The term X2AI however is grounded in our observation that new 'generative' AI models provoke a different type of interaction, that involves people explaining themselves to the model, in the form of training, prompting, and feeding these models with information. In this latter scenario, explaining 'oneself' to AI is, we argue, also an ethical act. Rather than being driven by a moral desire for transparency, Explaining to AI is driven by a need to be recognised, seen and understood - a politics of *recognition* (Butler & Athanasiou, 2013; Hafermalz, 2021; Suchman, 1995). Key differences between an ethics of transparency and a politics of recognition, including how these relate to Explanations and AI, are summarised in Table 1.

Politics of recognition concern being known, respected, and heard within a system (Baygi et al., in press; Fraser, 2008). This is tied up in identity politics because it involves making visible a particular identity within social and political discourse, usually with the aim of attracting rights such as access, assistance, or protection from discrimination. Because being visible is needed in order to be 'counted' in this way, Butler and Athanasiou (2013, p. 75) point out that being recognised via visibility and

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representation is something that we “cannot not want”. Being visible, known, and ‘accurately’ represented within a system or data set, is an important part of being catered to. Such visibility is however a double-edged sword, because it can lead to intrusion on privacy, stereotyping, and constant demands to articulate who one is.

	<i>Ethics of Transparency</i>	<i>Politics of Recognition</i>
<i>Ethical Concerns</i>	Concerned with honesty, openness, accountability, and the integrity of processes that impact people's lives.	Concerned with justice, inclusivity, representation, recognition, and the impact of portrayals on marginalized groups.
<i>Relationship to Explanations</i>	Explanations are requested, to “give an account” of actions e.g., in an audit aiming to detect wrongdoing and/or ways to make a system fairer	Explanations are offered, to define “who one is” and “what one wants” e.g., so that unique qualities and needs are recognised and catered to
<i>Challenges in relation to AI</i>	Ensuring that openness does not lead to information overload or the violation of privacy and confidentiality. Storing computations for possible future inspection and reporting is costly. Predictive capability may be reduced in efforts to make models more explainable. Some machine learning processes are not intelligible to humans.	Balancing the need of diverse populations to be seen and represented accurately and sensitively without perpetuating stereotypes, or encroaching on privacy. Ensuring that the full diversity of needs of different populations are recognised and included in AI systems is costly and political. Cultural contexts of development are likely to differ from contexts of use.

Table 1. Comparing an Ethics of Transparency to a Politics of Recognition in Relation to AI and Explanations

In the following, we conceptualize Explaining to AI and the politics of recognition by drawing on three representational practices that involve explaining to AI ‘who we are’ and ‘what we want’: training, prompting and feeding the AI. After introducing each practice, we provide ideas for future research avenues from an organisational perspective on how to further study X2AI.

Explaining to AI in Work and Organizing: Representational Practices of Training, Prompting, and Feeding

1. **Training** all forms of AI requires work. Apart from developing algorithms and models, critical research has shown the often undervalued manual labour of tagging, labelling, cleaning, and supervising the data flows that sustain AI systems (Justesen & Plesner, 2024). Usually attention is brought to these work practices to highlight the poor conditions under which some repetitive tasks are performed (Gray & Suri, 2019; Wood et al., 2019), and the lasting psychological damage that can be caused by exposure to extreme content that needs to be labelled so that others can be protected from it. An Explainable AI

perspective would take an interest in such training work because how data is organised and named gives important clues to the source of biases, for example.

Yet considering the work of training AI from an X2AI perspective highlights that all forms of AI training (which remains largely hidden from the end user) are also means by which AI is taught to understand diverse human contexts, populations, needs, desires, and values (Tubaro, Casilli, & Coville, 2020). In Generative AI, unsupervised learning is the norm. However, data inputs are still overseen by humans, and fine-tuning is needed to ensure that outputs are in line with both practical and societal expectations. Training can therefore be seen as a representational practice of explaining to AI ‘who we are’, so that it can operate acceptably within the sociotechnical context in which it is deployed. Apart from further understanding this work of Explaining to AI in AI training processes, we also urge future research on the meta question of *how different forms of work are explained to AI*: what are we teaching AI systems about work and organizing?

Adding such a work and organizational perspective here draws attention to the following illustrative lines of inquiry: *how is work and organising being identified, captured, labelled, and organised in the training stages of (Generative) AI model development? What ‘images’ of work and organizing are being constructed through AI training processes? What are the (potential) implications of these constructions for the way that AI systems are deployed and used in work and organizing?* These questions emphasise that the work of training AI systems is important, also because of the manner in which such training ‘teaches’ AI to make sense of work (Barley & Kunda, 2001; Morgan, 1997; Suchman, 1995) and to act, at times autonomously, in organizational contexts during its deployment phase.

2. **Prompting** is the name that has been given to the conversational act of instructing Generative AI systems such as ChatGPT. ‘Prompt engineering’ has even been hailed as a new commercial skill that attracts consulting fees, microcredential certificates, and even saleable prompts that are created for purchase and use by others. The consequences of this relatively sudden appearance of prompting as a way of interfacing with AI are yet to be fully explored. From an ethics perspective, the act of ‘conversing’ with an artificial agent/chatbot has been viewed with suspicion, on the basis that these often sycophantic tools masquerade as if they ‘know’, or ‘understand’ what we ask them for, while in fact operating mainly on a probabilistic level by putting one probable word in front of another without any deeper capacity for comprehension or empathy (Roberts et al., 2024).

An X2AI perspective here highlights the iterative, conversational, and creative process (Pangaro, 2008, 2010) by which interactants try to make themselves and their goals clear and comprehensible to AI. We note however that the phrase 'prompt engineering' implies a strongly instrumental and largely one-way interaction, whereas our research on and experience with Generative AI tools thus far (Retkowsky et al., 2024) reveals a far more 'intertwined' relationship that is at play when for example ChatGPT is called upon for help, inspiration, advice, and feedback.

Rather than being a one-way act of instructing or ordering AI to carry out a task, it is often through chains of iterative prompts that we learn what it is we want in the first place. Through a repeated process of being misunderstood, clarifying, receiving erroneous or surprising outputs and providing feedback in response, a 'conversation' emerges that can lead the human instigator to places they did not expect. Cybernetics theorists have characterised such experiences as being fundamental features of good conversations-as-systems, where "We certainly want to know more or to understand more than when we started—if we are in the same place at the end of the journey, then what was the point?" (Pangaro, 2008, p. 37).

Appreciating the emergent and relational nature of explaining to AI means treating this representational practice as formative. Rather than merely 'telling' AI who we are or what we want, the process of interacting with AI shapes who we are and what we want. X2AI is in this way a political issue - because the act of representing oneself to a system means, at least to some extent, understanding oneself in relation to that system. People, and workers in particular, are therefore not merely prompting AI with instructions to receive a useful output. Rather, the act of telling AI about our tasks and requirements is also shaping work, as well as the worker. In Foucauldian terms, representational acts of explaining to AI constitute a process of subjectification that shapes the subject (Foucault, 1977). In anticipating what will 'make sense' to AI workers are, whether inadvertently or intentionally, thinking about their work in terms of that system. Their worker-self is in this way performatively and iteratively shaped in and through interacting with AI.

In sum, we contend that conversational and iterative acts of explaining to AI systems (such as ChatGPT, MidJourney, or Github CoPilot) what we want and need is increasingly becoming a part of daily working life and that these interactions are shaping how workers understand and practice their work, and themselves, in significant ways.

Questions that might be asked in future research on such a topic include: *Where do workers start versus where do they 'end up' when turning to Generative AI for assistance with a task? How does the repeated act of conversing with AI shape other collaborative interactions, processes, and subjectivities in an organization? How do system level prompts shape the 'interactional frame' of interacting with customised Generative AI systems? What are the (unintended) consequences of striving to make one's work explicable so that it is comprehensible by artificial agents? What kinds of worker-AI relations are evolving from these daily and at times frustrating collaborations?*

3. Feeding AI is the term we give to the act of end-users uploading files, documents, images, and other artefacts to Generative AI systems, in efforts to get things done. For example, a set of PDF files of academic articles may be uploaded with a request to compile a list of their similarities and differences. A profile photograph might be uploaded to a system such as Dall-E with a request for it to create a digital avatar likeness of the image. In some emerging artistic practices, images and descriptions of local scenes, people, accents, and artefacts are uploaded or fed to already trained systems to fine tune what the model comes out with in terms of the users' preferences, local context, and specialised requirements. We treat 'feeding AI' as analytically distinct from training in the sense that it involves end-users, and occurs after the initial model is trained, with the goal of tailoring a system to a particular use context.

This act of feeding AI with content that is important or relevant to oneself or one's community is a representational practice aimed at asking AI to "know me" or "know us". When understood in terms of X2AI, we can highlight how such feeding is tied to some of the downsides of recognition (Butler & Athanasiou, 2013), in particular how the need to be visible within a system in order to be catered to could come at the cost of privacy and ownership over personal data. Companies such as OpenAI are famously vague about how data that is fed to ChatGPT by users is handled, and employees who have fed company data into free personal GenAI accounts have been reprimanded for 'leaking' information (Krietzberg, 2024; Ray, 2023). Yet in framing such acts of feeding as representational practices we offer an additional, alternative perspective to such a focus on the ethics of privacy and security, which helps to make sense of why workers continue to offer information to AI even given these risks.

We are currently studying an organisational implementation of Microsoft Co-Pilot in a media organisation - following along at training sessions and conducting qualitative interviews with those who have

early access to this tool. Several participants that we have spoken to in these early stages of our study have been disappointed that Co-Pilot (so far) does not seem to have 'read' their stored files and emails to the extent that it can mimic their tone and style of writing emails. Apart from the convenience of having an AI agent that can convincingly write an email that passes as personal correspondence, we identify here a more fundamental interest in having AI systems, at least on some level, 'understand' us. Consider what it was like trying to interact with the original Siri or Alexa voice assistants, particularly with an accent or language other than American English. Such experiences of non-recognition are jarring to one's sense of identity and belonging. Now that AI agents are suddenly far more capable, we are witnessing amongst users a willingness and even eagerness to explain to AI everything it needs to compute, in order to better fulfil our requests, even and perhaps particularly in the workplace.

A final set of illustrative questions that relate to practice of feeding AI in a work and organizational context includes: *What information and artefacts are employees willingly sharing with AI? How/is the feeding of artefacts used to (try to) shape AI's 'local knowledge' of organizational and national/regional culture, for example by uploading local lexicons or onboarding manuals? When do misunderstandings and conflicts occur in relation to fed artefacts, and how are these breakdowns dealt with?*

Conclusion

Explaining to AI (X2AI) is fast becoming a skilled and significant kind of work. Workers are now training, prompting, and feeding a variety of Generative AI systems in efforts to make human contexts, interests, and aims intelligible to machines. This work reflects a politics of recognition that is impactful, because how AI sees and understands us is becoming increasingly important for how work gets done. On an individual level, AI is now often 'speaking for us' as generated content is posted and sent to colleagues and clients. Workers therefore have an added task of taking care of how AI systems represent them in systems of communication. Models that have been trained in one context, with a particular notion of for example what it means to work, collaborate and interact with others, need to be taught and tailored for local organizational and cultural contexts. Will local quirks, accents, mannerisms, and signs of personal attentiveness and care be lost, in favour of generic corporate speak and smooth AI imagery? The answer depends largely on how ongoing efforts to explain to AI proceed.

References

- Barley, S. R., & Kunda, G. (2001). Bringing work back in. *Organization Science*, 12(1), 76-95.
- Baygi, R. M., Introna, L. D., & Ostovar, M. (in press). Beyond categories: A flow-oriented approach to social justice on online labour platforms. *MIS Quarterly*.
- Butler, J., & Athanasiou, A. (2013). *Dispossession: The performative in the political*. John Wiley & Sons.
- European Parliament. (2024, March 13). *Artificial Intelligence Act: MEPs adopt landmark law* [Press release]. <https://www.europarl.europa.eu/news/en/press-room/20240308IPR19015/artificial-intelligence-act-meps-adopt-landmark-law>
- Foucault, M. (1977). *Discipline and punish: The birth of the prison*. Trans. Alan Sheridan. New York: Vintage-Random.
- Fraser, N. (2008). Social justice in the age of identity politics: Redistribution, recognition, and participation. In *Geographic Thought* (pp. 72-89). Routledge.
- Gray, M. L., & Suri, S. (2019). *Ghost work: How to stop Silicon Valley from building a new global underclass*. Eamon Dolan Books.
- Hafermalz, E. (2021). Out of the Panopticon and into Exile: Visibility and control in distributed new culture organizations. *Organization Studies*, 42(5), 697-717.
- Hafermalz, E., & Huysman, M. (2022). Please explain: Key questions for explainable AI research from an organizational perspective. *Morals & Machines*, 1(2), 10-23.
- Justesen, L., & Plesner, U. (2024). Invisible Digi-Work: Compensating, connecting, and cleaning in digitalized organizations. *Organization Theory*, 5(1), 26317877241235938.
- Krietzberg, I. (2024, January 30). ChatGPT is leaking users' passwords, report finds. *TheStreet*. <https://www.thestreet.com/technology/chatgpt-sam-altman-artificial-intelligence-privacy-ethics-passwords>
- Morgan, G. (1997). *Images of Organization*. California: SAGE Thousand Oaks.
- Pangaro, P. (2008). Instructions for design and designs for conversation. In *Handbook of conversation design for instructional applications* (pp. 35-48): IGI Global.
- Pangaro, P. (2010). How can I put that? Applying cybernetics to "Conversational Media". *Cybernetics & Human Knowing*, 17(1-2), 59-75.
- Ray, S. (2023, May 2). Samsung bans ChatGPT and other chatbots for employees after sensitive code leak. *Forbes*. <https://www.forbes.com/sites/siladityaray/2023/05/02/samsung-bans-chatgpt-and-other-chatbots-for-employees-after-sensitive-code-leak/>
- Retkowsky, J., Hafermalz, E., & Huysman, M. (2024). Managing a ChatGPT-empowered workforce: Understanding its affordances and side effects. *Business Horizons*. Advance online publication. <https://doi.org/10.1016/j.bushor.2024.04.009>
- Roberts, J., Baker, M., & Andrew, J. (2024). Artificial intelligence and qualitative research: The promise and perils of large language model (LLM) assistance. *Critical Perspectives on Accounting*, 99, 102722.
- Suchman, L. (1995). Making work visible. *Communications of the ACM*, 38(9), 56-64.
- Tubaro, P., Casilli, A. A., & Coville, M. (2020). The trainer, the verifier, the imitator: Three ways in which human platform workers support artificial intelligence. *Big Data & Society*, 7(1), 2053951720919776.
- Wood, A. J., Graham, M., Lehdonvirta, V., & Hjorth, I. (2019). Good gig, bad gig: autonomy and algorithmic control in the global gig economy. *Work, Employment and Society*, 33(1), 56-75.

Organizing a Cognitive Community to Open the Access to Legal Information. The case of OpenJustice.be

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Abstract

This article proposes a both reflexive and critical analysis of OpenJustice.be, a Belgian community that emerged in April 2020. This community aimed to address the longstanding struggles with judicial modernization in Belgium, particularly the online access to law and justice. How did the OpenJustice.be initiative emerge and develop into a cognitive community, before suddenly fading away? To answer this question, the authors first depict the genesis of this citizen-led project, emphasizing the “openness discourse” and the open devices developed by this growing community. The analysis then looks at the type of community formed by its members, before discussing the practical critique addressed by OpenJustice.be, and highlighting the fading away of the community. As the three co-authors of this article were also involved in the life of OpenJustice.be, this paper provides a grounded, reflexive, and critical analysis of a project driven by openness and digital commons.

Introduction

In Belgium, as in many democracies abiding by the rule of law, the judicial system has been experiencing a legitimacy crisis in the last 30 years (Rabinovich-Einy, 2015). In a context of normative changes (Kuty & Dubois, 2029), *New Public Management* reforms have aimed to speed up judicial work while making it more productive, effective and efficient (Hondeghe et al., 2016; Colaux et al., 2023). These include the creation of the High Council of Justice (Kuty, 1999), the reform of judicial organizations (Ficet, 2011; Schoenaers, 2021), and the implementation of new managerial and digital tools (Schoenaers & Dubois, 2008; Vigour, 2017; Dubois & Schoenaers, 2019). Computerization and digitalization projects were meant to improve the transparency, accessibility and independence of the judicial system (Garapon & Lassègue, 2018). However, many of those projects have resulted in successive failures (Pouillet, 2009; Wynsdaü & Jongen, 2015; Dubois et al., 2019) without restoring citizens' trust in the judiciary⁵. As a result, Justice is still persistently perceived as inefficient, too slow, not very accessible, and equipped with obsolete IT tools (Ingels, 2016).

Both citizens and legal professionals suffer from this situation, as exemplified by the very specific problem of access to case law: it is neither free, nor reliable, nor complete (Dubois et al., 2020). More generally, legal sources – legislation, case law, and doctrine – are fragmented (Malliet, 2010). Although electronic access to these scattered contents across almost 400 journals is possible, it is rather expensive, and requires either individual purchases or subscriptions to the relevant specialized journals. These closure strategies are put in place by private legal publishers, with two or three big international companies dominating much of the legal information market in the country.

In the absence of a public policy regulating the dissemination of legal information, private companies have been merchandizing the access to case law in Belgium in the last 190 years. Yet, the law is a public good. Facilitating its dissemination however constitutes an essential democratic principle (Peruginelli, 2014). In May 2019, the revision of Article 149 of the Constitution⁶ indicated that this principle would finally become real (Hubin, 2019; Behrendt & Jousten, 2020). According to this reform, all decisions and judgments made by courts and tribunals would be published online. A free, permanent, reliable access would now be guaranteed by the State. However, this effective date was quickly postponed from September 2020 to September 2022, and then to April 2024, due to the lack of available infrastructure.

In such a context, a citizen initiative named OpenJustice.be emerged in April 2020. It aimed to provide citizens with *open source*, *open data*, and *free* tools for publishing and accessing case law⁷. In the span of a few months, this initiative took the form of a non-profit organization, bringing together 40 members. They contributed to the digital innovation in law and justice, through publications, conferences, and meetings ; the design and development of several concrete tools for publishing the content of the Belgian Official Gazette⁸,

⁴ ULiege, Belgium.

⁵ In 2001, the Phenix project was initiated to consolidate the 14 distinct case management systems previously employed by various judicial entities into a single, global application. This initiative aimed at centralizing information, facilitating the operation of the judicial system, improving communication internally and externally, and establishing a case law database. Regrettably, this project failed in 2007 due to technical challenges faced by the subcontractor. The experience from Phenix later influenced the Cheops Plan, which sought to expand the case management system from District Courts to all jurisdictions. However, this expansion did not achieve complete success either, encountering, among other things, issues with system migration and added functionalities (Dubois et al., 2019).

⁶ <https://www.ejustice.just.fgov.be/eli/loi/2019/04/22/2019202064/moniteur>

⁷ <https://openjustice.be/2020/05/23/open-justice/> (accessed January 17, 2024).

⁸ <https://etaamb.openjustice.be/fr/index.html> (accessed January 17, 2024).

anonymizing judicial decisions, publishing them, and conducting searches in more than 227,000 decisions⁹.

How did the OpenJustice.be initiative emerge, develop, and suddenly fade away? And what does such an initiative mean in the context of the longstanding inefficiency of informatization and digitization policies in the Belgian judicial system? To answer this question, and drawing on Michel Callon's descriptive and analytical framework (Callon, 1984), we first account for the genesis of this citizen-led project (section 1), then analyze its "openness discourse" and its translation in *open source*, *open data*, and *open government* devices (section 2), before examining the type of community formed by its members (section 3). Finally, the discursive and practical critique proposed by OpenJustice.be is being discussed in order to highlight some risks run by the community (section 4). In doing so, this paper first accounts for the role of actors, discourses, and tools in the organizing process of the OpenJustice.be community. Second, it provides a grounded case study illustrating how the ideas of openness and commons can drive the design, development, and dissemination of an alternative option to (and therefore practical critique of) public and private LegalTech projects. Third, as the three co-authors of this article were also involved in the founding and life of OpenJustice.be, this reflexive analysis accounts for a collective experience while offering a grounded and critical perspective of a project driven by the ideas of openness and the commons. This paper is therefore both a testimony and a scientific analysis of this project.

1. OpenJustice.be: Conception and Development of a Project

Behind the initiative we are studying here lies a key person: Pieterjan Montens (PM, hereafter). This 35-year-old, bilingual French and Dutch, describes himself as "Developer / Jurist / Public Sector & Non-Profit innovator [with some expertise in] digital transformation and innovation of law, justice and the public sector"¹⁰. Between 2007 and 2018, he played a key role at the Belgian State Council, where he actively engaged in the design, development, and maintenance of an electronic case law publication system, called *juriDict*¹¹ (Dubois & Pelssers, 2021). A key feature of *juriDict* lies in its reliance on open

and free infrastructure. Between 2019 and 2021, PM worked in [Beta.gouv.fr](https://beta.gouv.fr), the French State's digital services incubator¹². In April 2020, amidst the COVID-19 lockdown, PM sent out a metaphorical "message in a bottle", in his own words. He reached out to his social network via email, inviting them to collectively envision an open-source solution for publishing legal judgments and decisions¹³. Concurrently, he created a website¹⁴ featuring a manifesto, a call for contributions, and a newsletter.

"Justice-pourlepeople-doorhetvolk is evolving. This first call for contributions has generated numerous reactions, and has enabled a real team to be built, sharing a common will to concretely support innovation, in complete openness and transparency. Openjustice aims to provide an open source, open data and free tool for publishing case law. Within this framework, several projects will be carried out to identify, test and validate existing open source digital components (this is the principle of the digital commons), and develop the tools needed to implement them. Other projects, again within the framework of free and open access to law, could also be involved." Source : <https://openjustice.be/2020/05/23/open-justice/> (accessed January 17, 2024)

The manifesto addressed a specific political issue: the judicial system's apparent incapacity to implement the May 5, 2019 law altering the publication of judgments and decisions¹⁵, attributing this to "a lack of resources, vision, or capability"¹⁶. Confronting the threat of privatizing the implementation of the law, PM, leveraging his expertise as both a computer developer and legal professional, suggested several concrete solutions, based on his career trajectory and skills

"As a computer developer and jurist who: has realized the first and most comprehensive e-procedures in Belgium; developed etaamb.be and funded its hosting for 10 years; and is active in the digital start-ups and incubator world, both private and public, it is painful to see Justice being privatized piece by piece, as if it were inevitable. [...] Granted, I do not work for Justice, and I am unable to assist and initiate the necessary transformation from within. Fortunately, from the outside, with the tools and processes available to us, other paths and approaches are possible..."¹⁷.

In this excerpt, PM expresses his dismay at witnessing the incremental privatization of justice, a process he finds distressing. He then shifts to an entrepreneurial stance, leveraging his expertise in computer technology and legal

⁹ <https://outil.openjustice.be/?auth=ok>; <https://omdat.openjustice.lltd.be> (accessed January 17, 2024)

¹⁰ <https://pieterjan.montens.net> (accessed March 8, 2024).

¹¹ <http://www.raadvst-consetat.be/?page=juridict&lang=fr> (accessed January 17, 2024).

¹² <https://beta.gouv.fr> (accessed January 17, 2024).

¹³ Email dated April 4, 2020.

¹⁴ <https://justice-pourlepeople-doorhetvolk.be> (accessed February 7, 2022).

¹⁵ An Act to amend the Code of Criminal Procedure and the Judicial Code with regard to the publication of judgments and rulings.

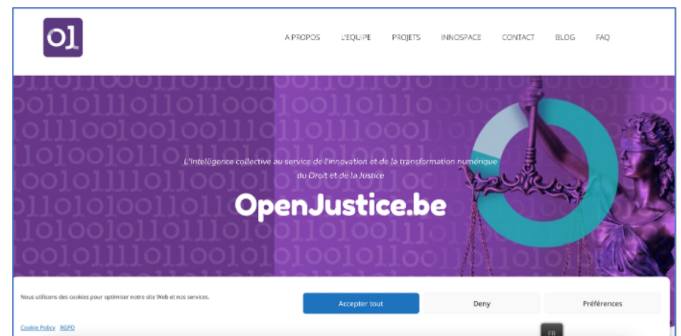
¹⁶ <https://justice-pourlepeople-doorhetvolk.be> (accessed February 7, 2022).

¹⁷ <https://justice-pourlepeople-doorhetvolk.be/about> (accessed February 7, 2022).

matters, as well as his experience “in both private and public digital start-ups and incubators”. This entrepreneurial approach, he believes, enables the transformation of initial indignation into actionable change. PM advocates for an alternative strategy to the traditional approaches in judicial digitization, considering public initiatives as either slow and visionless, and private ones as a threat to judicial independence. He therefore calls for a citizen-based, innovative strategy, relying on open tools and methods. His message, rooted in his extensive professional background in justice, law, and IT development, underscores the reimagining of digital development in justice.

The email sent by PM and the manifesto published on the website both resonated with approximately ten individuals who responded promptly. An online meeting – only way to meet during the confinement – was held on April 24th, followed by the dispatch of the first newsletter on April 26th, 2020. Gradually, a small multidisciplinary collective emerged. This group included nine individuals: Anne Vandendooren, a former lawyer turned software developer; Christophe Dubois, a legal sociologist at Liège University and co-author of this article; Renaud Hoyoux, a mathematician, developer, and founder of Cytomine, an open-source web platform which fosters collaborative analysis and allows semi-automatic processing of large image collections via machine learning algorithms; Martin Ericum, both a sociologist and a data analyst, also a co-author of this article, and founder of Mesydel an open-source web platform to conduct online Delphi surveys; Jeffrey Vigneron, a lawyer and legaltech entrepreneur, founder of Lawgitech, a law firm with expertise in digital law and legal design (Dubois, 2021); Manuel Pueyo, an IT consultant with a legal background, and founder of Bigkidscontent; Thomas Derrider, a lawyer with expertise in administrative law; Zorana Rosic, a legal scholar in law at Namur University; PM, who is a jurist, software and system engineer, and who describes himself as an “open-source fanatic”¹⁸. This team communicated daily via a collaborative platform (Slack¹⁹), organizing their collective work through various channels, and focusing on diverse tasks like participant introductions, website design, social media engagement, documentation sharing, GDPR compliance, logo design, and contact management. The following figure illustrates the output of some of these tasks, made visible on the homepage of OpenJustice.be, such as the logo (a combination of the initials OJ and the two elements of the binary code), the cookie setting tool, and various tabs relating to the team, projects and contacts. Weekly meetups facilitated

continuous discussions on these topics. Additionally, targeted work meetings gathered contributors for specific topics such as the association's life, open labs organization, search for funding, and app development.



Source: <https://openjustice.be>

Members of this small group shared several commonalities, varying in degree. The first is their close connection to law and justice, reflected in their education, profession, research activities, and civic concerns. The second is their engagement with digital – and open-source – technologies, which they use as tools in their roles as startup entrepreneurs, developers, or researchers. Finally, their entrepreneurship, characterized by many work meetings and project deadlines, employs a lexicon of innovation and networking, shaping an original organizational structure. This approach embodies a “new spirit of public action” (Céliér & Arfaoui, 2021), where autonomous individuals with diverse skills take part in project-based, network-supported actions, underpinned by a digital infrastructure (Eghbal, 2020). This infrastructure not only legitimizes and strengthens their mission to assist the digital transformation of Justice but is also crucial during the pandemic for enabling collective action amid remote working conditions. While the literature on New Ways of Organizing Work mainly focuses on organizational change projects (Jemine et al., 2020), this case study demonstrates that this notion also helps to apprehend the genesis and development of a project aimed at translating discourses of openness and digital commons in the field of law and justice. Such a project, relying on a website, remote collaboration tools (online meetings, Slack, GitHub, openlab, etc.), open technologies (open source and open data), and the publication of popularization articles, accounts for the phases of translating a concrete problem (Callon, 1984) into concrete devices.

This infrastructure and this new way of working lead the spontaneous nature of the organization to a more structured form between April and June 2020. As a result,

¹⁸ <http://montens.net> (accessed January 19, 2024).

¹⁹ <https://slack.com/intl/fr-be/> (accessed January 17, 2024).

the bylaws of OpenJustice.be were published²⁰ on July 1, 2020, clarifying its mission:

“Chapter 2 - Purpose and Objective [...]

Art. 4. The association's social purpose is to support, raise awareness, and promote the transparent and open digitalization of Justice and Law. It aims to respect the rights and needs of both professionals and citizens. In this sense, the association intends to develop open-source computer tools to facilitate access to legal resources, gather or incubate other projects and initiatives related to Justice and legal information, and provide a forum for exchange, reflection, and debate on these issues²¹.

The members of the community seized some opportunities to develop their tools. Observing how lawyers shared case law on specific topics via Facebook or WhatsApp, they designed a specific system for sharing anonymized and secure documents, in compliance with the General Data Protection Regulation (GDPR²²). In September 2020, they developed two main pilot projects: an app enabling lawyers to publish COVID-19 related jurisprudence online²³; and an interface enabling both the anonymization and legal sharing of case law²⁴. Initially, they developed a basic version of this interface, but it allowed for sharing and publishing otherwise inaccessible case law. The publication of two decisions regarding the legality of COVID-19 measures also facilitated communication about OpenJustice.be's developments²⁵.

Drawing on these pilot projects, the association made three functional tools available to everyone via its website, by November 2020: *be_law*, an automated loading tool for various legal sources to share and publish case law²⁶; *Outil*, an anonymization test bench for online published case law²⁷; and *Omdat*, a search and download engine for Belgian case law²⁸. To raise awareness and engage in public discourse, six popular articles were published in the press between July and November 2020²⁹, making it possible to narrate a collective and shared – common – experience (Berkowitz et al., 2023). Around thirty individuals participated in bi-monthly meetups and various thematic meetings of the association. By November 2020, OpenJustice.be also maintained an active

presence on social media platforms like LinkedIn, Facebook, Instagram, and Twitter.

The association seized a second opportunity by collaborating with the academic network. The development of the three aforementioned tools was carried out in partnership with the LegalTechLab of the University of Liège (ULiège)³⁰, which included a project to build *Corpus*³¹, a research and analysis tool for legal texts. ULiège also provided server resources to host data and develop these tools. In November 2020, an Open lab was organized in collaboration with sociolegal researchers from Crids (UNamur) and Liège LegalTech Lab (ULiège). This event aimed to present the developed tools to a select group of magistrates to assess their interest and potential adoption or adaptation in various jurisdictions. A research programme written after this open lab was then funded by the Belgian Fund for Scientific Research (F.R.S.–FNRS), in order to finance two PhD students. Lisa Pelssers, co-author of this article, was one of them. She then joined the University of Liège and became a member of OpenJustice.be in January 2021.

Additional opportunities arose through engagements with political entities (Parliament representatives, political parties, ministerial cabinets), institutional bodies (Constitutional Court, Judicial Order, Higher Council of Justice, Bar Associations), innovation networks (Open Knowledge Foundation, OpenLaw.fr, The European incubator of the Brussels Bar), and the Public Federal Service for Justice. Several meetings were held to assess interest in the OpenJustice.be initiative during the first seven months of its existence.

A collective project was born, carried out by a growing community. Its members were sharing the “problematization” (Callon, 1984) initiated by PM through his first email and website³². This problematization related to the incapacity of the state to conceive a case law database; the threat of privatizing the design and development of this database; and the need for

²⁰ https://www.ejustice.just.fgov.be/tsv_pdf/2020/07/01/20329355.pdf. (accessed January 17, 2024).

²¹ Idem.

²² <https://gdpr-info.eu> (accessed March 7, 2024).

²³ <https://openjustice.be/wp-content/uploads/2020/11/pilot1.pdf> (accessed March 8, 2024).

²⁴ <https://outil.openjustice.be/?auth=ok> (accessed March 8, 2024).

²⁵ <https://doc.openjustice.lltl.be/html/ECLI:BE:TPBRL:2021:JUR.20210330.2.O> (accessed January 17, 2024).

²⁶ https://github.com/openjusticebe/be_law_tools (accessed January 17, 2024).

²⁷ <https://outil.openjustice.be> (accessed January 17, 2024).

²⁸ <https://omdat.openjustice.lltl.be> (accessed January 17, 2024).

²⁹ <https://openjustice.be/blog/> (accessed January 17, 2024).

³⁰ <https://legaltech.uliege.be> (accessed January 17, 2024).

³¹ <https://openjustice.be/wp-content/uploads/2020/11/pilot1.pdf> (accessed March 8, 2024).

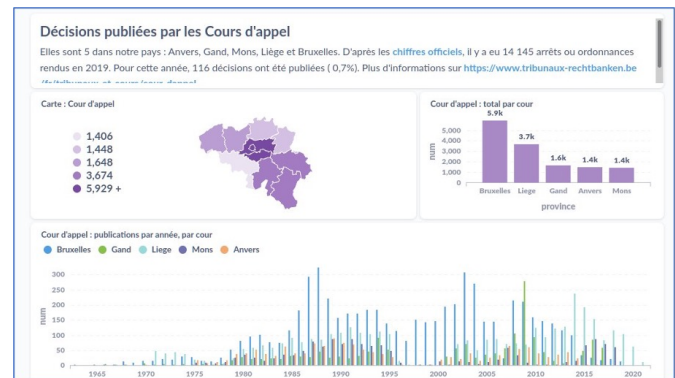
³² <https://justice-pourlepeuple-doorhervolk.be> (accessed February 7, 2022).

open tools. An organization emerged and its members engaged in discussing, designing, and developing concrete open tools (*be_law*, *Outil*, *Omdat*, *Corpus*), and in formalizing the structure of OpenJustice.be. The concrete solutions proposed by OpenJustice.be drew on openness discourses and open devices, carried out by its members towards various social worlds in order to disseminate their ideas (via press articles, meetings, and open labs) and tools (tailored for lawyers and magistrates). Let's now take a closer look at these ideas and tools.

2. A Project Woven by Openness Discourses and Open Devices

OpenJustice.be was significantly prompted and influenced by its central figure, PM, who became the president of the NGO. His professional background played a crucial role in this initiative. This experience led him to further strengthen his belief in open-source solutions to address organizational challenges in public bodies, especially within the Belgian judiciary. Open data and open source are central and explicit concepts in OpenJustice's philosophy, supported by concrete sociotechnical devices like Github code repositories, completed by the synchronous and asynchronous messaging platform (Slack³³).

The discourse of openness is also in line with the convictions and practices shared by the founding members of OpenJustice.be. More specifically, the projects developed by PM, Anne, Renaud, Martin, and Manuel are essentially based on open source and open data. They therefore share the idea of “commons governance” which “can be seen to develop both from a negative critique of the limitations of markets and hierarchies in allocating goods and a positive critique based upon the development of ‘technologies of the commons’ ” (Munro, 2023:13). The idea of “commons governance” is close to those of GovTech and Civic Tech as they draw on open technologies and data to enhance the transparency of public action, while adhering to the legitimacy standards of modern democracies (Rosanvallón, 2013). In OpenJustice.be's actions, this concept is supported by innovative tools – such as *be_law*, *Outil*, *Omdat*, *Corpus*, *etaamb* – and by new analytical graphics representing the actions of courts and tribunals, as exemplified by the following dashboards.



Source: <https://openjustice.be/stats-publications-arrets-jugements/>

Open data, systematic teamwork, and remote collaboration (between members constrained by the distancing measures in the context of covid-19 confinement, and using their free time to work remotely on this project) are key to understand how OpenJustice.be's members engage in law and technologies in order to develop innovative, online, and open services. These keys are often seen as a “constant of movements working for the free use of open and extensive data” (Baudot *et al.*, 2015; Baack, 2018; Yoshida & Thammetar 2021). The malleability of these keys serves a variety of projects, tools, objectives, and means, materialized by the name of the NGO, OpenJustice.be. These ideas and the associated tools (OpenJustice.be website, Slack, graphics, press articles, etc.) first act as devices of “interessement” (Callon, 1984), and then succeed in enrolling and mobilizing not only current members but also new ones, and raising awareness among diverse users, visitors, readers, laymen or experts. As a result, about forty people were accessing the collaborative workspace (Slack) in November 2021, and thirty of them took part in a participative workshop organized in Charleroi at the time, embodying a growing network.

Considering the cognitive alignment of OpenJustice.be's members, as well as their engagement, a key can be found in the initial problematization proposed by PM, and more particularly in the May 5, 2019 law : each member considered its implementation – by private companies – as a concrete public problem, and they all perceived openness (open data and open source) as a concrete, pragmatic solution to craft the case law database provided by the law. This solution simultaneously provided an answer to a more general problem, relating limited, costly, and partial access to Belgian case law (Dubois *et al.*, 2019). In the absence of public, systematic, and centralized publication procedures, this access remains fragmented, polycentric and incomplete. According to Buyle and van den Branden (2017), the courts processed

³³ Team collaboration tools like Slack are not open source software. Their code is proprietary and users don't own the software nor the data left in there. However, in 2020, open software such as Rocket.Chat still didn't enable smooth exchanges, and their ergonomics were not very accessible to lay users.

1,100,682 cases in 2016, but as of August 1, 2018, the public search engine <https://www.juridat.be/> only contained 158,509 judgments, representing just 0.47% of the total judicial decisions. Access to these sources is subject to a fee because, in the absence of a federal publication strategy, legal publishers try to monopolize the access to legal information. Their strategy thus leads to divide up the market according to specialized legal fields, leading to fragmented and costly legal resources for both ordinary citizens, denying them a free access to legal sources, and for lawyers, who often work in small structures that are unable to afford a subscription to electronic libraries.

OpenJustice.be developed its tools with the aim of enabling any citizen to load and download legal information for research, analysis, and reuse. The concept of openness, supported by free tools, serves as a commitment lever for several members who were already part of open developer communities before July 2020. For them, relying on open-source solutions ensures high-quality, equitable, and transparent access to legal information.

“[This is] what the OpenJustice.be initiative demonstrates. In the space of a few months, some forty volunteers have come together, shared their expert and lay knowledge, designed and developed ‘free and open source’ solutions for publishing and consulting anonymised, identifiable court decisions online, free of charge. Transparency is the fundamental democratic challenge of digital justice. As OpenJustice.be has shown, meeting this challenge does not require a large budget, major legislative reform, or expensive technology, but just a little support from the minister and those involved in the justice system. The results obtained will then be used to adjust the legislative, technological, and organisational parameters likely to equip an institution that needs them. These two levers are modest and often underestimated. But when they are made up of heterogeneous resources and knowledge, they make it possible to “lift the world”. This is the definition of leverage and its capacity to produce effects out of all proportion to its appearance. They are a reminder that society cannot be changed by decree - or by budget alone.” (Dubois & Montens, 2021)³⁴.

Such a philosophy perfectly aligns with open science, open education, open government, and open innovation préoccupations. In that respect, OpenJustice.be is increasingly playing as an alternative “legal information broker”, allow free and open access to legal information for both legal professionals and laymen citizens. OpenJustice therefore occupies a central position (interesse) between legal information and its potential users, whom it seeks to “interest” by drawing on a number of innovative tools – “interressement devices” (Callon, 1984)

– developed by its members. Whether OpenJustice.be members are busy developing and maintaining these tools – such as *be_law*, *Outil*, *Omdat*, *Corpus*, *etaamb* –, or users are taking them in hand, the enrolment phase shows an evolution in their roles. “Interressement achieves enrolment if it is successful. To describe enrolment is thus to describe the group of multilateral negotiations, trials of strength and tricks that accompany the interressements and enable them to succeed.” (Callon, 1984: 211). These tools are the material translation of the openness discourses. By mixing together open tools, engaged members, expert and lay users, press articles, and workshops, new chain of intermediaries arise. These “can be described as the progressive mobilization of actors who render [OpenJustice.be’s] propositions credible and indisputable by forming alliances and acting as a unit of force” (Callon, 1984: 216). The message carried out through this mobilization means: “yes, it is possible to conceive open tools as an alternative to unsatisfactory public and private strategies”.

In addition to designing and developing these tools, OpenJustice.be promotes their use to “support the digitization of Justice (accessibility, sustainability, artificial intelligence, machine learning, etc.) and the digitization of legal sources”³⁵. In doing so, its members act as “spokesmen” and “spokeswomen” aiming to “mobilize” allies: “A few individuals have been interested in the name of the masses they represent (or claim to represent)”. But the main question is: “will the masses [...] follow their representatives? (Callon, 1984: 214)³⁶. Their project aims to serve as an example for public bodies. This reflects another discourse, inspired by Betagouv.fr (Pezziardi & Verdier, 2017), that PM knows well from having been working there. Recognizing the barriers to change within public organizations, OpenJustice.be embraces alternative, lightweight, and pragmatic methods. The project-driven innovation approach, typical of start-ups, informs OpenJustice.be’s actions. The use of meetups, collaborative workspaces, newsletters, social media presence, and various projects leading to the development of tools embody a new civic spirit in public action (Céliérier & Arfaoui, 2021).

Beyond its founder and president, what kind of community have OpenJustice’s members been weaving?

3. Openjustice.be, a cognitive Community

Following the initial impetus provided by PM, a small network of active members quickly formed. Through the

³⁴ <https://orbi.uliege.be/bitstream/2268/254916/1/Dubois%202021%20LeSoir%20Montens.pdf>

³⁵ <https://openjustice.be/2020/08/12/openjustice-un-collectif-qui-veut-faire-avancer-lopen-access-en-matiere-juridique/> (accessed February 7, 2022).

³⁶ The answer to this question was uncertain and, as we shall see below (section 4), it will have been evolving: after rapid growth in 2020 and 2021, the OpenJustice.be network will stagnate in 2022 with seventy members, before the organization applies to the public tender to develop the case law database. The failure of this attempt in August 2022 will drastically slow down the organization’s activity.

mediation of ideas and technical tools, the collective organized itself into a community. This community is primarily understood as a cognitive community, meaning a group of individuals united around certain ideas to create and share information and interpretive frameworks on concrete experiences.

Various authors have been distinguishing between epistemic and practice communities among cognitive ones (Hussler & Rondé, 2007). Epistemic communities refer to groups of “agents working on a commonly acknowledged subset of knowledge issues and who at the very least accept a commonly understood procedural authority as essential to the success of their knowledge activities” (Cowan et al., 2000). Practice-based communities are “groups of persons engaged in the same practice, communicating regularly with one another about their activities” (Wenger & Lave, 1990). Moved by a shared passion for open technology open law, OpenJustice members seek to develop their skills in this respect via the community and for the community. Within OpenJustice.be, some members are rather practioners contributing to develop the infrastructure of the platform, while others are rather observing the organizing process, in order to inform it through meetings, workshops, press articles, networking, etc. Most members, however, simultaneously engage in both aspects – including the authors of this text –, conceiving that epistemic and practical knowledge feed a pratical critique of the judicial policy.

3.1. Mobilizing Principle of the Cognitive Community

The minimal condition for a community to exist lies in its members' adherence to some values, a common mission, or a shared horizon. The mobilizing principle of OpenJustice.be is “the provision of data, tools, and digital services aimed at making justice accessible”. This access is open, facilitated by free solutions, and civil society collaboration. This mission, established by the founding members at the birth of the association in May 2021, has frequently been scrutinized and debated within the community, as evidenced by many discussions on their Slack platform. This guiding principle acts as the core value and common mission uniting the community members. This founding principle is frequently used to inform certain decisions to be taken by the community, and is thus reaffirmed and reinforced, as illustrated by the following example concerning the acceptance of a private entity as a member of the community.

“XX (legaltech startup) is interested in formalizing a partnership and becoming a member of OpenJustice. They are considering joining as a corporate entity, which could lead to opportunities with other entities. As a reminder, XXX wants to publish some of their developments in open source on OpenJustice's repository: for me, this fits perfectly with what OJ wants to do, aligning with its role as an aggregator of open-mode initiatives.” (Exchanges on Slack, May 17, 2021)

OpenJustice's mission is also frequently questioned, especially when external requests are received by the community. In these cases, the same practical norm applies: the request is put up for discussion, and every member can contribute his or her opinion. Certain individuals might exhibit a lower level of concern compared to others, which can be demonstrated through their response to a request from the Ministry, as illustrated in the example below.

- “Hello, inner circle! I've been in touch with XXX from the cabinet, who confirms that we are indeed invited to participate in the judgments and rulings publication debate. He also asked about our current work to see if it's worth organizing a Zoom meeting: I have a feeling that they might be fishing for ideas, but I could be wrong (regardless, OpenJustice is not the minister's think tank)” (Member 1)
- “Great about the debate invitation! As for the 'what are you working on' question, we can reply without giving away details, basically summarizing in 2-3 sentences what's already shared on social networks, right?” (Member 2)
- “On what we are working: 'tools for simplifying procedural aspects in the lawyer/client relationship!'” (Member 3)
- Member 4: “Hmm, very interesting! Personally, I don't quite see my involvement in this mission description.” (Member 4) (Exchanges on Slack, February 22, 2022)

The regular questioning of the guiding norms ensures the maintenance of the community dynamic within the collective. This is also inscribed in summary documents with evocative headlines (e.g., “Mission-Vision-Values”³⁷), and enacted through participative design thinking tools. This method makes it possible to bring together a variety of viewpoints to co-construct a rigorous and inclusive diagnosis of a situation. It enabled the members of the community to develop a shared vision and an organisational strategy by integrating several suggestions and opinions. This method has been used both remotely – during videoconferences or on the Slack platform – and in face-to-face interactions, as depicted by the following photo, showing Pieterjan and Renaud arranging various post-it notes.

³⁷ “**Transparency:** we promote the values of Open Data, Open Source and Open Government both in our internal operations and in our achievements. **Inclusion:** each member of the NGO is welcomed in his or her entirety (professional and extra-professional), in a protective and benevolent workspace. **Autonomy:** our approach is based on trust and empowerment. Each member is free to initiate and decide on projects. Decisions are made by soliciting opinions. **Sharing:** the NGO encourages the sharing of knowledge through collaboration and cooperation between members, whether for personal projects or in connection with its activity.” Source: <https://openjustice.be>, accessed January 17, 2024).



Source: <https://twitter.com/Tintamarre>

This is how the mobilizing principle of OpenJustice.be has been setting a direction (i.e. to facilitate access to justice) for the various actions initiated by its members, such as digital tools development, and knowledge dissemination.

3.2. Performance Conditions of a Cognitive Community

Given that a cognitive community's existence is rooted in information sharing and exchange, it requires a sociotechnical device which consists of open and decentralized many-to-many communication means. Within OpenJustice.be, communication is organized through a proprietary tool named Slack, descending from IRC-type tools³⁸. These tools, through their sociotechnical design, offer communication via channels, which are typically open by default, allowing all members to observe and participate in the exchanges. Additionally, the source code developed by some community members is shared through public version-controlled code repositories³⁹. This direct access to the developed source code is visible to both external observers and community members. The openness of the code facilitates practical learning and sharing processes, thereby enabling the involvement of certain actors in the practical community's logic.

- "Well, I did some translations and @membre_1 helped me with the GitHub commit... Loser as I was, I wasn't in the right folder. So thanks to him ;-) I learned something." (Member 5) (Exchanges on Slack, May 17, 2021)
- "Hey @membre_7, I don't remember the GitHub workflow. I made a small change to test. I've pushed my branch and created a pull request. Who merges it?" (Member 6)
- "Great! I can do the merge, but I've left you a comment." (Member 7) (Exchanges on Slack, February 22, 2022)

This communication style fosters **inclusion** and **transparency** in exchanges, both being core values of the community, together with **sharing** and **autonomy**⁴⁰. Transparency in many-to-many device exchanges ensures optimal information sharing, guaranteeing equal access to information and communication for every member.

A second condition for the success of a cognitive community is legal in nature, concerning the property regime of information exchanges within the community. To ensure free information flow and thus the community's success, members must adhere to the implicit social contract of not personally appropriating others' knowledge productions. This "legal" context is necessary but not sufficient for a cognitive community's success. Success can be measured by the community's resilience and ability to persist, enrolling and keeping members. As of February 2022, the original core group remains active, with around sixty new members joining with varying regularity and commitment, indicating growth in the initial network.

Cognitive communities generally adhere, in varying degrees of strictness and formality, to a principle aimed at "balancing the author's right to fair recognition of their work with the public's right to access knowledge, culture, and information" (Blondeau, 2023). When this principle is formal, the legal framework guides member activities towards a communalist norm as described by Merton (1973). This norm creates a world where produced knowledge becomes a "public good". This is true for OpenJustice.be, where no member claims intellectual property rights over developed tools and actions, except for certain publications (scientific and press articles) that require individual authorship.

Considering OpenJustice.be as a cognitive community, we now have a better understanding of how epistemic and practical ties intertwine in its creation and development. Designing digital tools and disseminating knowledge gathers members who are interested in pursuing both a common goal (promoting a better access to law and justice) and specific objectives (putting one's technical, legal, scientific or communications expertise at the service of a common cause, and hoping to develop this expertise in return).

³⁸ For a study of IRC devices, see Latzko-Toth (2010). Despite the importance of this proprietary tool, there was no debate or controversy among the community members, who saw it as a necessary means of achieving the explicit objective to open the access to legal information.

³⁹ <https://github.com/openjusticebe/> (accessed February 7, 2022).

⁴⁰ Cf. *supra*, footnote 22.

4. A Community of Practical Critics?

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. One of the first surprising aspects concerns the rapid growth of the community under study. In less than two years, it has managed to mobilize around seventy members who have contributed to the development of three tools, the organization of two open labs and ten thematic workshops, the hosting of nearly 200 meetups, the publication of ten press articles, a presence on social networks (Twitter, LinkedIn, Facebook), the management of a Slack workspace, the development of a GitHub repository, and various meetings with the Ministry of Justice, the President of the Federal Public Service of Justice, legal orders, and bar associations, among others. Despite all the obstacles that have marked the digitization of law and justice in Belgium over the past 20 years, the community has succeeded in making a concrete contribution to this project, and in making its voice heard. Openness characterizes OpenJustice.be's practical, analytical, and critical proposals. As a result, openness has gradually been presented as a credible option for the various groups of actors involved in the policies aiming to digitize the Belgian judicial system.

A second observation counterbalances the first one: in 2022, the growth in membership has slowed down. New members were becoming increasingly scarce. Moreover, the activities of OpenJustice.be appeared to generate only marginal and limited interest. Its publications and developments neither sparked a wave of enthusiasm, nor incited resistance. Given the repeated failures in the computerization of Belgian justice and the accumulated “delay” in this area⁴¹, how can one explain that the initiative did not have a greater impact on public debate and did not attract more attention from legal

professionals, developers, politicians, and academics? Had the community already reached a threshold? Or did this initiative simply fail to mobilize beyond a circle of insiders, as nobody stands to lose from an endeavor whose actions remain confined to the margins of the legal-judicial field, to paraphrase Luc Boltanski's (2009) remarks on the consensual nature of solidarity economy initiatives?

An important event partially answers these questions. In less than two years, the network developed by OpenJustice.be has led it to forge many links with the judiciary, lawyers, politicians, academics, legaltechs, international associations and more. In February 2022, a public tender was published to design and develop the database of judgments and case law, provided for by the law of May 2, 2019. The implementation of this law, after having motivated the birth of OpenJustice.be in April 2020, now gave it a unique opportunity for mobilization. Of course, major companies (IT services, legal publishers) were going to compete for the tender. But an opportunity, however small, was opening up for the community to finally demonstrate its capacity and values based on openness. The community then mobilized various members of its network to form a consortium. The consortium, which included ULiege, OpenJustice.be, cogni.zone, 3sign.com, and predictice.com, submitted a bid in March 2022. In May 2022, the consortium was selected for the second round of the public tender, which was suddenly closed by the Minister of Justice by the end of June 2022. The decision made by the latter involved entering into a negotiated public contract between the Public Federal Service for Justice and Microsoft, with the Azure software having meanwhile persuaded the policymakers. Privatizing the implementation of the law was no longer a threat, but rather a fact. As much as the sudden opening of such a window of opportunity led to a spike in the community activity, its equally sudden closure discouraged many community members.

“The opportunity was just too good: we may have dreamed of developing our tools and skills on a larger scale. And we may have believed that the opportunity had arrived to demonstrate that our [open] model was a credible alternative. But if we had won the public tender, we would have had to deal with both private and public logics. But since we didn't go that far, we'll never know what would have happened in practice.” (PM, Exchanges via email, August 2nd, 2022).

Following PM, the community's original motive – to offer an alternative to the privatization of legal information – had become irrelevant. Meetings between core members

⁴¹ https://www.rtbfbelgium.be/info/belgique/detail_digitalisation-de-la-justice-le-ministre-veut-relancer-le-processus-le-chantier-est-immense?id=10752519; <https://www.lecho.be/economie-politique/belgique/general/legaltech-ce-business-qui-attend-son-decollage/10305924.html> (accessed January 17, 2024).

began to fade; bonds to dissolve⁴². However, in July 2024, Belgian magistrates, lawyers, clerks and citizen are still waiting for the database and its anonymization tool to be developed.

“What are our challenges? One of the most important aspects was the link between Office 365 and IAM⁴³. Currently, the technical teams are preparing the acceptance tests and we are in the last straight line to release. At the same time, we are continuing to work on the integrations with case management systems, so that in the future you won't have to need to manually upload judgments and rulings. It is important to emphasize that for this development we faced challenges that are typical for software development. [...] Once the integrations with the case management systems are complete, we will start the release process for users of the systems. We will announce this in a timely manner via this digital network, followed by online training sessions to familiarize everyone with the new process. [...] We understand that delay causes disappointment, but we want to emphasize that we are still in full compliance with the law. You can still upload judgments on paper and sign them.” (A. Redant, Change Manager, SPF Justice – January 2024)

Through its various actions, OpenJustice.be has translated an initial problem (articulated through the – rapidly shared – indignation of PM) into concrete devices, both discursive (published analyses in textual and graphic formats, notably) and practical (digital tools). These devices serve as practical critiques of the “modernization” policies in the judicial system carried out over the past two decades, and the closed and costly modalities of accessing legal information. This practical critique is based on the search for alternative ideas and tools. By questioning the effectiveness of public and market regulations in terms of access to law and justice, OpenJustice.be aligns itself with a perspective of citizen reappropriation of legal information. However, is the collective's logic of action, based on projects and a form of “start-upization” of public action, neutral? “Is it not a product of the neoliberal society”, the very society against which these actions are taken? We can revisit the question posed by Blanc (2015) to other projects based on indignation and involving community-based local currencies, and ask: “To what extent can the use of the codes and grammar of the project affect the scope of the protest itself?”

A primary risk of rebound effect specifically concerns the access to law and justice. By developing open tools and relying solely on digital mechanisms, OpenJustice.be's actions might inadvertently exacerbate the distance from the law experienced by populations affected by socio-digital divides (Dubois, 2022; Isckia & Parisot, 2023). A second risk lies in the network-based and innovation-

driven logics adopted by the collective. These are particularly attractive to some private actors (such as legal publishers, large law firms, and bar-associated incubators) and are more compatible with their entrepreneurial logics of action (Dubois *et al.*, 2019) than with those of public administration. A third risk is the collective's ability to retain and enlist volunteers over the long term while securing the resources that are necessary to maintain existing tools. In other words, the professionalization of OpenJustice.be, which would have been necessary if the 2022 tender had been awarded, could have lead to some tensions with the volunteer-based openness ethos. In this sense, the nature of the critique posed by the the team could have shifted from radicality (proposing an alternative system) to correction, engaging into a reality test rather than into an existential challenge (Blanc, 2015 ; Boltanski, 2009). Such a risk linked to the institutionalisation of an innovation potentially concerns any type of alternative, from mediation as an alternative dispute resolution to restorative justice as an alternative to imprisonment (Dubois, 2012): the institutionalisation of such innovations can often be summed up as the death of a good idea (Bastard & Cardia-Vonèche, 2000).

Nonetheless, further speculation on these hypotheses would be vain as this article aimed to offer a reflective reading of this collective experience, while accounting for a practical critique based on openness discourses and open technologies. This collective experience emerged with the aim of proposing an alternative to law and justice modernization policies based either on public initiatives or private partnerships. This alternative, based on open technologies and digital commons, was however unable to achieve the ambitious goal of designing and developing an open database of Belgian case law. Was this goal simply utopian?

References

- Baack, S. (2018). Civic tech at mySociety: How the imagined affordances of data shape data activism. *Krisis*, (1).
- Benoît Bastard et Laura Cardia-Vonèche, 2000, L'institutionnalisation de l'informel: la mort d'une bonne idée? L'exemple de la médiation familiale, *Fampra*, (2), 216-230.
- Behrendt, C., & Jousten, A. (2020). La révision de l'article 149 de la Constitution: la publicité des décisions judiciaires à l'ère du numérique. *Journal des Tribunaux*, 139, 2-8.
- Berkowitz, H., Brakel, F., Bussy-Socrate, H., Carton, S., Glaser, A., Irrmann, O., ... & De Vaujany, F. X. (2023). Organizing Commons in Time and Space with Framapads: Feedback from an Open Community. *Journal of Openness, Commons & Organizing*, 2(1), 6-11.
- Blondeau, O. (2023). Celui par qui filecode est parlé. Pour une lecture expressive du phénomène hacker. See fresscape.eu/orf.

⁴² Another factor that may explain this slowdown in the community might come from the fact that, in summer and autumn 2022, some professional reorientations happened: PM joined the Court of Justice of the European Union as Data Innovation and Governance Officer; Martin joined the Fédération Wallonie-Bruxelles as Head of Operational Governance and Data Transformation; Renaud joined a digital strategy and technological consulting firm. If most of OpenJustice.be's members continue to work at the crossroads of law and digital technology, most of them are keeping loosely-coupled ties.

⁴³ IAM stands for “Identity & access management”.

- Baudot, P.-Y., Marrel, G., & Nonjon, M. (2015). Encore une révolution informatique? Open et big data dans les organisations administratives. *Informations sociales*, (5), 12.
- Blanc, J. (2015). Contester par projets. Le cas des monnaies locales associatives. *Revue de la régulation. Capitalisme, institutions, pouvoirs*, (18).
- Buyle, J.-P., & Van Denbranden, A. (2017). La robotisation de la justice. In J.-P. Buyle & A. Van Denbranden, *L'intelligence artificielle et le droit* (p. 269). Bruxelles: Larcier.
- Callon, M. (1984). Some elements of a sociology of translation: domestication of the scallops and the fishermen of St Brieuc Bay. *The sociological review*, 32(1_suppl), 196-233.
- Céliérier, L., & Arfaoui, M. (2021). La start-up comme nouvel esprit de l'action publique ? Enquête sur la startupisation de l'action publique et ses contraintes. *Gouvernement et action publique*, 10(3), 43-69.
- Colaux, E., Schifano, N., & Moysen, S. (2023). Neither the Magic Bullet Nor the Big Bad Wolf: A Systematic Review of Frontline Judges' Attitudes and Coping Regarding Managerialization. *Administration & Society*, 55(5), 921-952.
- Cowan, R., David, P.A., Foray, D., 2000. The explicit economics of knowledge codification and tacitness. *Industrial and Corporate Change*, 9, 211-254.
- Dubois, C. (2022). La numérisation, levier d'une justice accessible et indépendante? *Journal des Tribunaux*, 6881(1), 12-14.
- Dubois, C. (2021). How do lawyers engineer and develop legaltech projects?: A story of opportunities, platforms, creative rationalities, and strategies. *Law, Technology and Humans*, 3(1), 68-81.
- Dubois, C. (2012). La Justice réparatrice en milieu carcéral: de l'idée aux pratiques. Presses universitaires de Louvain.
- Dubois, C., & Schoenaers, F. (2019). Les algorithmes dans le droit: illusions et (r) évolutions. Présentation du dossier. *Droit et société*, 103(3), 501-515.
- Dubois, C., Mansvelt, V., & Delvenne, P. (2019). Entre nécessité et opportunités: la digitalisation de la justice belge par l'ordre des avocats. *Droit et société*, 3, 555-572.
- Dubois, C., Montens, P., Vandendooren, A.-S., Hoyoux, R., Vigneron, J., & Rosic, Z. (2020). Le libre accès à l'information juridique : une opportunité démocratique... et budgétaire. *Le Vif. L'Express*.
- Dubois, C., & Montens, P. (2021). Deux leviers sobres mais puissants pour équiper la Justice. *Le Soir*.
- Eghbal, N. (2020). Working in public: the making and maintenance of open source software. Stripe Press.
- Ficet, J. (2011). Trajectoires de réforme de la carte judiciaire et managérialisation de l'État. Analyse comparée des politiques de territorialisation de la Justice en France et en Belgique. *Revue internationale de politique comparée*, 18(4), 91-118.
- Garapon, A., & Lassègue, J. (2018). Justice digitale: révolution graphique et rupture anthropologique. Presses universitaires de France.
- Hondeghem, A., Rousseaux, X., & Schoenaers, F. (2015). Modernisation of the criminal justice chain and the judicial system. Springer International Publishing.
- Hubin, J.-B. (2019). La publicité de la jurisprudence en version 2.0. *RDTI*, 74, 55-70.
- Hussler, C., & Rondé, P. (2007). The impact of cognitive communities on the diffusion of academic knowledge: Evidence from the networks of inventors of a French university. *Research Policy*, 36(2), 288-302.
- Ingels, B. (2016). Le Baromètre de la Justice: une confiance à restaurer. Justice en ligne. [Online] Available at <https://www.justice-en-ligne.be/Le-Barometre-de-la-Justice-une> (Accessed February 7, 2022).
- Isckia, T., & Parisot, X. (2023) The social and political challenges of open innovation. *Journal of Openness, Commons & Organizing*, 2(2), 5-7.
- Jemine, G., Pichault, F., & Dubois, C. (2021). The politics behind design projects: when space, organization, and technology collide. *International Journal of Managing Projects in Business*, 14(3), 743-766.
- Kuty, O. (1999). Premières analyses sociologiques sur le conseil supérieur de la justice. In M. Verdussen (Ed.), *Le Conseil Supérieur de la Justice* (pp. 100-108). Bruylant.
- Kuty, O., & Dubois, C. (2019). De la valeur à la norme: Introduction à la sociologie. De Boeck Supérieur.
- Latzko-Toth, G. (2010). La co-construction d'un dispositif sociotechnique de communication : le cas de l'Internet Relay Chat. *Sociology*, Université du Québec à Montréal.
- Malliet, C. (2010). Research Guide to Belgian Law. Consultada el, (27). URL : <https://www.nyulawglobal.org/globalex/Belgium.html>
- Merton, R. K. (1973). *The sociology of science: Theoretical and empirical investigations*. University of Chicago Press.
- Munro, I. (2023). The Crisis of the Commons: An Inquiry into 'Technologies of the Commons' as Tools for Organizing. *Journal of Openness, Commons & Organizing*, 1(2), 12-22.
- Pezziardi, P., & Verdier, H. (2017). Des startups d'état à l'état plateforme. Fondapol, Fondation pour l'innovation politique.
- Peruginelli, G. (2014). L'accès global au droit : un aperçu du passé et un regard vers l'avenir. *Revue française des sciences de l'information et de la communication*, (4).
- Pouillet, Y. (2009). The Belgian Case: Phenix or How to Design E Justice Through Privacy Requirements and in Full Respect of the Separation of Powers. In *E-Justice: Using Information Communication Technologies in the Court System* (pp. 186-195). IGI Global.
- Rosanvallon, P. (2013). La légitimité démocratique: impartialité, réflexivité, proximité. Seuil.
- Rabinovich-Einy, O. (2015). The legitimacy crisis and the future of courts. *Cardozo J. Conflict Resol.*, 17, 23-73.
- Schoenaers, F., & Dubois, C. (2008). Regards croisés sur le nouveau management judiciaire. Les Editions de l'Université de Liège.
- Schoenaers, F. (2021). Le Nouveau management public et la justice: les enjeux de la réforme du système judiciaire belge. *Revue Juridique Themis*, 54(1), 459-485.
- Vigour, C. (2017). Nouveau référentiel gestionnaire ou nouveau modèle de justice? Les réformes belges depuis 2013. *Pyramides. Revue du Centre d'études et de recherches en administration publique*, (29), 61-92.
- Wenger, E., Lave, J., 1990. *Situated Learning; Legitimate Peripheral Participation*. Cambridge University Press.
- Wynsdaï, S., & Jongen, F. (2015). Les procédures électroniques: réalisations, échecs et perspectives. Pas de droit sans technologie. Larcier.
- Yoshida, M., & Thammetar, T. (2021). Education between govtech and civic tech. *International Journal of Emerging Technologies in Learning*, 16(4), 52-68.



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