Workshop The City as a License: Design, Rights and Civics in a Blockchain Society
Call for Participation

June 24 2021 Online @ Media Architecture Biennale

Organizers / Editors:
Amsterdam University of Applied Sciences Civic Interaction Design Research Group & Institute of Network Cultures (Martijn de Waal, Gabriele Ferri & Inte Gloerich); Institute for Design Informatics, University of Edinburgh (John Vines & Chris Elsden).

Abstract & Goal
The goal of this workshop is to work towards a special issue / edited volume on the theme of The City as a License: Design, Rights and Civics in a Blockchain Society. We seek written and visual contributions that explore the opportunities and challenges as well as actual experiments and designs of Digital Ledger Technologies in civic contexts, from a perspective of urban governance, social justice and the 'right to the city'.

In the past few years, a number of authors have expressed the capabilities for blockchain to become the administrative backbone of civic economy, peer-to-peer and urban commons projects. DLTs are seen as technology that could further promote urban commons as systems of resource production, management and governance within communities that focus on use value rather than exchange value, and are thought to contribute to more inclusive, sustainable urban societies.

In these scenarios, DLTs are set-up as an administration, management and allocation tool for public and civic resources. However, these DLTs are more than just accounting tools. They have come to de facto govern the systems and communities that they administer, meaning that it becomes important to explore their effect on social dynamics and power relations.

In a half-a-day workshop authors present their abstracts and discuss their themes, argument and research approach.

Context
This workshop will take place as part of the Media Architecture Biennale 20, taking place from June 24-July2 2021 in Amsterdam and Utrecht.
http://www.mab20.org

Background: Civic DLTs
Distributed ledger technologies (DLTs) such as blockchain have in recent years been presented as a new general-purpose technology that could underlie many aspects of social and economic life, including civics and urban governance. In civil society, this development is exemplified by various 'blockchain for good' projects that have sprung up in recent years. The Center for Social Innovation of the Graduate School of Stanford Business made a useful, albeit optimistic, analysis of 193 initiatives that aim to operationalize the blockchain for social good in the categories of: health; financial inclusion; energy, climate, and environment; philanthropy, aid, and donors; democracy and governance; agriculture; and land rights (Galen et al.2018, 3). Bartoletti et al. broadly share these categories in their

analysis of 120 "blockchain-enabled social good projects", adding digital identity, education, and human rights (Bartoletti et al. 2018 38).

A number of authors have also expressed the capabilities for blockchain to become the administrative backbone of civic economy, peer-to-peer and urban commons projects (Antoniadis 2018; Boiler 2015; Pazaitis et al. 2017; Rozas et al. 2018; Pitt & Diaconescu 2014, Bauwens & Pazaitis 2019). DLTs are seen as technology that could further promote urban commons as systems of resource production, management and governance within communities that focus on use value rather than exchange value, and are thought to contribute to more inclusive, sustainable urban societies, that are also more democratically governed by the commoners themselves. For instance, Rozas et al. (2018) see opportunities to deploy the blockchain in commons-projects to bring out a shift from 'a culture of competition' to 'a culture of cooperation.' At least in theory, Rozas et al. conclude, blockchains have many affordances that match well with Elinor Ostrom's principles for successful commons. These decentralised technologies, they state, 'could facilitate coordination, help to scale up commons governance or even be useful to share agreements and different forms of value amongst various communities in interoperable ways' (Rozas et al. 2018). Bauwens and Pazaitis similarly point out that the new affordances of blockchains are well-positioned to create new modes of accounting that have the potential to reward generative practices rather than extractive ones (Bauwens & Pazaitis, 2019).

DLT affordances for good

In many of the examples above, DLTs are seen as a new technology for accounting, as well as for rights and identity management. Using these affordances, DLTs can be set-up as an administration, management and allocation tool for public and civic resources. With the addition of smart contracts, DLTs can further automate the processing of data and execution of decisions in civil society through algorithmic governance. Smart contracts are algorithmically encoded rules that can automate certain transactions based on pre-set conditions. This means that both performance and enforcement of these rules can be executed automatically, without the need (or possibility) for human interference (Cila et al. 2020; Wright & De Filippi, 2015). With these smart contracts embedded in its code, blockchain-based systems can become Decentralized Autonomous Organizations (DAO), which were hailed around 2015 as a new way to build "transparent, efficient, fair, and democratic" organizations, although their real world application quickly made clear it is not as straightforward as this (DuPont 2018).

In particular, DLTs are thought to potentially contribute to social good because of a number of characteristics. Due to their consensus algorithms, DLTs can administer transactions in a transparent way, making administrations more accountable and less prone to fraud or corruption. Second, DLTs are perceived as democratizing technology because of their reliance on consensus algorithms instead of opaque central authorities (Ølnes, Ubacht, and Janssen 2017, 363). This could be used for instance to make supply chains more transparent, as blockchains are assumed to facilitate fair payment for those vulnerable to exploitation located at the often-opaque start of the chain (e.g. farmers of coffee beans in the Global South) (Galen et al. 16). Third, decentralized and transparent nature of the blockchain is understood to give people more control and agency over, for example, their digital identities or the set of rules that are encoded in their DLTs. Fourth, relying on quantification for its algorithm, blockchain makes efficient and minute bookkeeping possible in domains in which it has historically been difficult to do so, for example: the conditional distribution of charity; international aid funds distribution, (Galen et al. 2018, 60–61; Pisa and Juden 2017, 31); or the administration of resource management and contributions to urban commons.

City as a License – DLT as systems of governance

Due to these affordances, DLTs are not just accounting tools. They have come to de facto govern the systems and communities that they administer, meaning that it becomes important to explore their effect on social dynamics and power relations. Rules and identities are encoded in smart contracts, that operate based on the input of particular datasets and set categories through what has been called algorithmic governance. This may contribute to what De Filippi and Wright (2018) have described as, "a structural shift of power from legal rules and regulations administered by government authorities to code-based rules and protocols governed by decentralized blockchain-based networks." According to Wright and De Filippi (2018), this means that increasingly we are subjected to what they call the "rule of code". Seen from this perspective, DLTs could become 'rights management systems' through which all kinds of access to urban resources, paying publics (Light & Briggs 2017) and civic engagements, are organized and administered based on the conditions, rule sets and rights set in its architecture.

Elsden et al. (2018) have pointed out that these developments mean that design-oriented fields such as human-computer interaction (HCI) should take a role in the further development of blockchain and DLTs. They argue that as the field has moved beyond user interfaces, it must ask more fundamental questions "about what the design and sociotechnical assemblage of new technologies means for 'being human', and the ways in which technical infrastructures shape, and in turn are shaped by, social and cultural phenomena." Building upon these insights, Cila et al. (2020) have shown that the design of DLT-systems from a value sensitive perspective is also prone to bring out value tensions and design dilemmas.

In a speculative workshop on civic blockchain taking place in 2018, Elsden et al. have come up with a heuristic lens to explore such value tensions: the city as a license. This is described as "a future in which (semi-)autonomous digital systems administer rights and access to a broad variety of urban resources." For instance, with blockchain-based DAOs, parking places could be programmed to autonomously run a parking service, encoding particular rights and priorities in smart contracts with regard to whom is entitled to use a parking space under what conditions. The city, and civic contexts in general, could then be understood as "a series of licences to make use of or contribute to the production of particular services such as parking, health, housing, energy or schooling." (Elsden et. al 2019).

It's important to note that this lens was introduced as a heuristic to critically explore the impact of DLTs, not as a design objective in itself. What does it mean if civil society and civic and urban life is increasingly governed through algorithmic systems that give out 'licenses' to make use of local resources? What are the underlying rule sets, and who has the power to determine and alter them? What room is left for interpretation, negotiation and exceptions when rules are encoded in software? And what new governmentalities does such a system produce?

The city as a license & urban culture

The city as a license connects debates about algorithmic governance and digital civics (e.g. Vlachokyriakos et al. 2016) with theories on urban culture and in critical geography around smart cities and the right to the city. In a broader approach of urban culture at large, various critics have made a plea for cities as open systems. It is the density, diversity, and ambiguity of cities that makes them places of inspiration and innovation, that allows citizens to build-up trust between one another, and that gives citizens agency to appropriate the various resources at offer from their own vantage points. As one of the most well-known proponents of this vision, throughout his career Richard Sennett has pleaded for urban design that is underspecified, that allows for a certain disorder and unresolved narratives (Sennett 1970, 2006, 2018). According to Sennett, modernist, technocratic planning and neoliberal urban

development with their focus on efficiency, functionality and profit have undermined this openness. New technologies such as DLTs and those belonging to "smart cities" may further take away the agency of citizens and close off the path towards openness. To look at the city as a series of licenses, allows us to critically investigate to what extent technological systems still allow for these ambiguities. To what extent do the licences in DLTs demand that informal social and economic relations become formalized, in set relationships, roles and expectations? Or do they open up new spaces for citizens to democratically set the conditions for these licenses themselves, opening inroads to new modes of economic and social organization?

More specifically, the city as license connects debates about DLT design and power structures with debates about the right to the city that were instigated by French philosopher Lefebvre in the 1960s. These rights as formulated by Lefebvre would consist of both access to resources and the qualities of life a city offers as well as agency in the planning of future developments (Lefebvre 1996). In the last few years, in the debate of smart cities, various critics have built upon Lefebvre to point to structural inequalities in the implementation of new urban technologies. For example, Graham et al. focus their critique on the marketisation of public services in smart cities (2019). Building on such critiques and theoretical proposals, others aim to open up avenues to encode certain rights and democratic principles into the way algorithmic governance is set up. Prainsack explores the potential of digital commons to address critiques of power asymmetries in access and usage of data (2019). The Cities for Digital Rights-movement is an example of a collective committed to designing democratic public platforms that are locally controlled. Following Kitchin et al. we are interested in invoking Lefebvre to see to what extent DLT design in the civic domain can contribute to emancipation and empowerment for all citizens (Kitchin et al. 2018, Cardullo et al. 2018, Cardullo et al. 2019).

Expected Contributions

We are looking for contributions that explore the design of DLTs in the civic domain. We invite contributions from researchers working in the fields of urban governance, human-computer interaction, science and technology studies, interaction design, ... Following Elsden et al. (2018) and their provisional framework (2019) for thinking about civic blockchains, we seek contributions related to, but not limited to, the following levels:

On *a philosophical level*, the design of DLTs may require new conceptual frameworks, theories or heuristics from a perspective of the right to the city and the city as a license that help to bring out salient opportunities and challenges relating to the technological affordances of DLTs. Such theories may safeguard an open urban culture and socially just governance structures for urban resource management, civil society and social interaction.

On a *political level* the rise of algorithmic governance and digital civics raises questions about decision-making, transparency, and accountability in relation to democracy. What can we learn from current projects and experiments with regard to democratic governance organized through DLT-based systems? What value tensions may arise in the deployment of DLTs from the perspective of 'the city as a licence'? How can design contribute to resolving some of these tensions?

On *the level of interaction*, what do or could interactions between citizens and civic DLT systems look like? This level might include exploring designs that facilitate embodied rituals for abstract data transactions and exploring the symbolic dimensions of smart contracts and automation. In the contexts of civics, a particular concern is, how these interactions will be inclusive of all as well as understandable by all citizens, not just an elite

or those who are easiest, or most profitable, to serve. As a design provocation, the interaction layer invites a specific focus on the touchpoints people have with these services, how they are materialized, and how people make sense of them.

On a *social level,* what kind of civic hacks or criminal cracks would be thinkable to improve or undermine these systems? How would often vital grey economies fare or interact in a multicurrency space or strict civic licensing structure? How could the design of 'underspecified' DLTs be approached? This layer demands attention to the potentially emerging practices of individuals and groups, how social spaces and communities may become organized in new ways, and the societal implications of these technologies.

In addition to these four layers, we also seek *methodological contributions*. How can DLTs be designed as systems for governance? For instance, how can direct and indirect stakeholders be involved in the co-design of these systems? How can value tensions be identified or made understandable for future community members?

Types of Contributions

We welcome a.o. the following type of contributions:

- Philosophical / theoretical analyses and reflections
- Conceptual and technological explorations
- Actual case studies from either a design perspective or empirical analysis.
- Speculative projects / critical design / design for debate
- Annotated portfolio's and pictorials of design implementations
- Methodological contributions

Important Dates

- Abstracts of up to 500 words should be sent by May 15th
- Notifications: June 1st
- Workshop (online symposium) June 24
- Full papers (up to 8000 words or 6 pages A4 for pictorials and annotated portfolios) okt 1st 2021
- Peer review finished Early 2022
- Camera ready Spring 2022

Contact

The workshop will be organized by Martijn de Waal, Gabriele Ferri & Inte Gloerich (Amsterdam University of Applied Sciences) and John Vines & Chris Elsden (University of Edinburgh's Institute of Design Informatics).

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Submissions:
https://easychair.org/my/conference?conf=civicblockchain21#

Acknowledgements

This workshop is organized as part of an ongoing collaboration between Amsterdam University of Applied Sciences's Faculty of Digital Media and Creative Industries, and University of Edinburgh's Institute of Design Informatics. The notion of 'the city as a license'

was first developed in the workshop Making the Blockchain Civic, co-organized by the organizers of this workshop. See: Elsden, C., I. Gloerich, A. Spaa, J. Vines and M. de Waal (2019) 'Making the Blockchain Civic', Interactions, 26(2), pp. 60–65. doi: https://doi.org/10.1145/3305364. Part of the theoretical background in this CfP is based on a contribution to a special issue of Frontiers Sustainable Cities – Governance and Cities on Platform Urbanism and the Governance of Cities. Gloerich I, De Waal M, Ferri G, Cila N and Karpinski T. 2020. The City as a License. Implications of Blockchain and Distributed Ledgers for Urban Governance. Frontiers in Sustainable Cities. https://www.frontiersin.org/articles/10.3389/frsc.2020.534942/full

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