Digital Rights

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Digital rights are fundamental rights in the digital age related to privacy protection in smart cities. In this vein, it has encouraged the United Nations to take an advocacy role regarding the 'right to have digital rights' and create the Hub for Human Rights and Digital Technology: 'Together, as we seek to recover from the pandemic, we must learn to better curtail harmful use of digital technology and better unleash its power as a democratising force and an enabler'.

Keywords: digital rights; smart cities; people-centered smart cities; social innovation; institutional innovation; technological innovation; COVID-19; policy experimentation; action research; online research

1. Introduction: 'The Right to Have Digital Rights'

COVID-19 has hit citizens dramatically, not only creating a general risk-driven environment encompassing a wide array of economic vulnerabilities but also exposing people to pervasive digital risks, such as biosurveillance, misinformation, and e-democracy algorithmic threats [1][2][3]. Furthermore, it has inevitably raised the need to resiliently and techno-politically respond to threats that hyper-connected and highly viralised societies produce [4]. Consequently, over the course of the pandemic, a debate has emerged in several global *People-Centered Smart Cities* [5][6][7][8][9] regarding the appropriate techno-political response when governments use disease surveillance technologies to tackle the spread of COVID-19 [10] [11][12][13][14][15], pointing out the dichotomy between state-Leviathan cybercontrol and civil liberties [16][17][18].

In many ways, the pandemic, has unprecedentedly brought into sharp relief digital rights issues on which several agents had been working for years in cities worldwide [5][19][20][21]. Thus, the digital rights' claim could be directly seen as a social innovation that is evolving towards an institutional innovation [22][23][24]. The digital rights' claim, articulated via city networks, is currently offering new modes of urban governance for policy experimentation in city administrations worldwide [6][7][8][25]. As such, these kinds of digital rights-driven projects based on policy experimentations attempt to subvert the ongoing urban politics and governmentality that lack sustainability, with traditional siloed city administrations remaining a central obstacle to sustainable urban development and people-centered smart cities [26].

In 1949, Hannah Arendt [27] wrote a phrase that has gradually become one of her most quoted and often interpreted: 'the right to have rights.' The phrase summed up her scepticism about the concept of human rights—those rights that, in theory, belong to every person by virtue of existence [28][27][29][30][31][32]. According to Arendt, the only way for these rights to be guaranteed was being not only a person but also a citizen [33]. This quotation may resemble the current post-COVID-19 algorithmic times, when, in the age of digitisation and datafication, dealing responsibly with citizens' rights and data poses a dilemma: on the one hand, there is the tangible added value of processing citizens' personal data by private sector organisations, but on the other hand, there is the claim that individuals should retain control over these data and consequently derived civilian rights [34][35][36][37][38]. Amid surveillance capitalism and beyond a human rights-based approach of Artificial Intelligence (AI) governance [39][40], state-based dataveillance mechanisms like biometrics [41], vaccine passports [42][43][44][45], biobanks, and the Internet within the context of citizenship inevitably force us to reclaim 'the right to have digital rights' [45][46][47][48][49].

Calls for the protection of citizens' digital rights have resulted in countless reports, manifestos, organisations, projects, and political declarations in different regional, national, supranational, and global contexts [5][19][50][51][52][53]. Citizens have traditionally reasserted their positions in relation to the state by claiming human and civil rights and making rights claims. However, the triangle between the state, the market, and the citizenry requires careful balance to protect civic digital rights and liberties and to enable participation and active citizenship [54][55].

The globally widespread phenomenon of the algorithmic disruption has led to new consequences—such as hypertargeting through data analytics, facial recognition, and individual profiling—received by many as threats and resulting in not-so-desirable outcomes, such as massive manipulation and control via a surveillance capitalism push in the United States (US) [56][57] and the 'Social Credit System' in China [58][59][60]. In contrast, these techno-political concerns raised a debate in Europe that crystallised into the General Data Protection Regulation (GDPR), which came into force in May 2018. The emergence of the algorithmic disruption has spurred a call to action for cities in the European Union (EU), establishing the need to map out the techno-political debate on 'datafication' or 'dataism' [1][61][62]. Moreover, the disruption has also highlighted the potential requirements for establishing regulatory frameworks to protect digital rights from social innovation and institutional innovation. Such policy experimentation frameworks for urban governance cover demands for

privacy, ownership $^{[63]}$, trust, access, ethics, AI transparency $^{[64]}$, algorithmic automatisation $^{[65]}$, and, ultimately, democratic accountability $^{[66]}$.

Alongside the algorithmic disruptive phenomena, data technologies alter not only the corpus of citizens' rights but also the way in which cities conceive and deliver public policy and services to protect these rights [67]. This digital transformation pervasively encompasses all angles of policy experimentation in city administrations: the provision of services, the assignment of resources, the approach to solving social problems, and even the complex decision-making process are increasingly shifting to software algorithms and evolving toward considering citizens as merely data-providers rather than decision-makers [63][68]. This transformational process, stemming from a 'black-boxed' algorithmic momentum, is often perceived as a mechanism that increases the efficiency of existing approaches or as simply a process of policy adjustment [69]. However, further policy experimentation and advocacy stemming from social innovation and institutional innovation seem to be necessary in light of the current demands from city administrations worldwide (**Figure 1**).



Figure 1. Social, institutional, and technological innovations: Policy experimentations to explore understanding and prioritisation of digital rights.

A direct outcome of this policy advocacy was the Declaration of the Cities' Coalition for Digital Rights [70] manifesto, which was translated into data policy by building networked data infrastructures and institutions alongside policy recommendations for 'people-centered smart cities' [71]. The Cities' Coalition for Digital Rights (CCDR), an international alliance of global, people-centered smart cities, was formed in 2018 by the Barcelona, Amsterdam, and New York City (NYC) city councils to promote citizens' digital rights on a global scale. This broad movement has gradually expanded under the leadership of Barcelona, Amsterdam, and NYC [72]. Today, the movement comprises an additional 46 cities—including Athens, Balikesir, Berlin, Bordeaux, Bratislava, Cluj-Napoca, Dublin, Glasgow, Grenoble, Helsinki, La Coruña, Leeds, Leipzig, Liverpool, London, Lyon, Milan, Moscow, Munich, Nice, Porto, Rennes Metropole, Roma, Stockholm, Tirana, Turin, Utrecht, Vienna, and Zaragoza in Europe; Amman in the Middle East; and Atlanta, Austin, Cary, Chicago, Guadalajara, Kansas City, Long Beach, Los Angeles, Montreal, Philadelphia, Portland, San Antonio, San José, Sao Paulo, and Toronto in the Americas; and Sydney in Australia.

2. The Right to Have Digital Rights in Smart Cities

Over the last decade, the increasing propagation of sensors and data collection machines in so-called 'smart cities' by both the public and the private sector has created democratic challenges around AI, surveillance capitalism, and protecting citizens' digital rights to privacy and ownership [4][68][73][74][75]. The demise of democracy is clearly already one of the largest policy challenges in the post-COVID-19 hyperconnected and highly viralised societies for global 'people-centered smart cities' [76]. There is no question that the political and regulatory choices related to digital technologies in the so-called smart cities raise a variety of human rights concerns, ranging from freedom of expression to access, privacy, and other political and ethical questions. Invasions of privacy, increasing dataveillance, and digital-by-default commercial and civic transactions are clearly eroding the democratic sphere by undermining citizens' perception of their digital rights [77].

Against this backdrop, the concept of the smart city, having been highly contested from a critical academic standpoint stemming from social innovation [78][79][80] was recently reframed and coined by the UN-Habitat program as 'people-centered smart cities' [4][6][8]. The new categorisation creates not only an urban paradigm for the Global North but also for the Global South by decolonising the urban standpoint [81][82][83]. The use of the term 'people-centered smart cities' supports UN-Habitat's endeavour to back (among other city networks) the CCDR global cities, thus shaping a digital future that puts people first and helps bridge the social, digital, and data divide [7][43]. UN-Habitat's 'people-centered smart cities' definition—clearly resonating with social innovation—highlights the fact that smart cities should serve the people and improve living conditions for all. Far from being bypassed, the key aspect of this definition is the acknowledgement that national governments are overwhelmed by the complexity of digital policies, while municipalities rarely have the inhouse skills to create 'people-centered smart city' projects or to execute holistic impact assessments on the agreements they sign with private companies. For UN-Habitat, digital rights are intrinsically in the core of 'people-centered smart cities' insofar as cities are in a privileged position to strategise institutional innovation and deploy digital rights-related aspects among their fellow citizens.

Recently, a range of literature about digital rights has appeared in different disciplinary perspectives [33][35][37][40][47][55][77] [84] alongside a large corpus encompassing high-profile reports, institutional declarations in different supranational [52], national, regional, and global contexts as well as empirical datasets such as atlases [85] and rankings [86]. On the one hand, for several authors, algorithmic disruption has raised the question of how citizenship can be redefined through the incorporation of new digital rights related to the status of a citizen in cyberspace—access, openness, net-neutrality, digital privacy, data encryption, protection and control, digital/data/technological sovereignty [71][81][87]. On the other hand, the authors of recent declarations include not only civil society organizations but also various coalitions of states, international organisations, industry actors—framing digital rights in terms of corporate social responsibility—as well as city coalitions such as the one examined in this entry: The Cities' Coalition for Digital Rights (CCDR).

Digital rights have been rather present in academic debates over the last years particularly under the banner of 'Digital Rights Management' understood as a systematic approach to copyright protection for digital media [88]. This approach focuses on a set of access control technologies for restricting the use of proprietary hardware and copyrighted works. More recently, though, the digital rights have been understood in a complementary fashion as follows: Pangrazio and Sefton-Green argued that 'digital rights are human and legal rights that allow citizens to access, use, create, and publish digital content on devices such as computers and mobile phones, as well as in virtual spaces and communities' [77] (p. 19). Currently, digital rights are not only a set of rights in and of themselves but are also related to other human rights, particularly freedom of expression and the right to privacy in online and digital environments [89]. In practical terms, human rights can be thought of as protection against standard threats—such as oppression, deprivation, and violence—that jeopardize human interests very much related to the notion of alienation and data justice [40][81][89].

Complementing the previous approaches, according to Daskal [90] (p. 241), 'civil society organisations have been advocating digital rights aiming to construct the social-political-cultural identity of a generation who are knowledgeable, politically active, and aware of their rights in the digital age.' Daskal concluded that civil society organisations attempt through advocation of digital rights to (i) deliver accurate technological and political information, (ii) propel citizens towards participation, and (iii) sell merchandise to citizens.

Timelier though, is Kitchin's $\frac{[18]}{}$ suggestion that in the early response to COVID-19, there was no sufficient consideration of the consequences for civil liberties, biopolitics, or surveillance capitalism, whether the supposed benefits outweighed any commensurate negative side effects, or whether public health ambitions could be realised while protecting civil liberties.

Inevitably, in the aftermath of COVID-19, and even in a resilient quick reaction to an emergency, the response given by CCDR people-centered smart cities shows how relevant it has become for policymakers to elucidate how data are collected, by whom, for what purpose, and how they are accessed, shared, and re-used [91]. CCDR cities including Amsterdam (implementing 'Unlock Amsterdam' to check on which tech could be used to ease the lockdown process), Barcelona (opting for the extension of Telecare for elderly people living alone), Helsinki (emphasising the need to have the right data on health, social life, and the economy), NYC (distributing tablets to vulnerable and disconnected communities), and San Antonio (developing an open data hub for citizens and interested stakeholders to access updated statistical information on COVID-19 on a daily basis) are just a few examples to show the importance of claiming digital rights in pandemic times.

Digital rights capture the techno-political tension among 'subjects of rights, objectives, constraints, and governance framework' [37] (p. 312). Thus, beyond their status as existing legal obligations, digital rights can be articulated through a variety of political issues and employed by different actors for different purposes. As such, from a critical standpoint, remarkably, Karppinen and Puukko [37] criticise those current debates for failing to acknowledge that rights are not simply rules and defences against power: rights claims might often emerge from civil society, but they can also be used as vehicles of power, and structures of governance. Furthermore, these authors consider that concept of digital rights itself 'remains vague and malleable' [37] (p. 309). Nonetheless, in line with the examination of the CCDR city cases in this article from the social and institutional innovation perspective, they also argue that 'actors that take part in these initiatives and processes all contribute to a discursive exchange where the principles are crystallised and perhaps eventually institutionalised' [37] (p. 324), as is clearly the case with the CCDR.

Probably the more comprehensive contribution to the contextualisation of digital rights was made by Isin and Ruppert [84]. For them, five digital rights have emerged in cyberspace so far: (i) expression, (ii) access, (iii) privacy, (iv) openness, and (v) innovation. Their position stems from Arendt's [27] understanding of rights in legal and not performative terms, which essentially means that there can be no human digital rights without citizenship rights: either human digital rights are the rights of those who have no digital rights or the rights of those who already have digital rights, being citizens. Thus, Isin and Ruppert [84] define a comprehensive list and definitions of five digital rights: (i) expression as blocking censorship of Internet; (ii) access as promoting universal access to fast and affordable networks; (iii) openness as keeping the Internet an open network where everyone is free to connect, communicate, write, read, watch, speak, listen, learn, create, and innovate; (iv) innovation as protecting the freedom to innovate and create without permission; and (v) privacy as protecting privacy and defending people's ability to control how their data and devices are used.

Several key references on smart cities have been explicitly cited so far $\frac{92|93|94}{2}$, **Table 1** depicts several taxonomies about digital rights: first, the taxonomy by Isin and Ruppert $\frac{84}{2}$.

 Table 1. Digital rights' taxonomies.

DIGITAL RIGHTS' TAXONOMIES					
Being Digital Citizens [84]	Charter of Human Rights and Principles for the Internet [82]	Smart City Citizenship	CCDR [72]		
• Expression	Right to access to the Internet (choice,	Right to be forgotten	Right to universal and		
• Access	inclusion, neutrality, and equality)	on the Internet	equal access to the internet, and digital		
 Openess 	Right to nondiscrimination in Internet access, use, and governance	Right to be unplugged	literacy		
 Innovation 	Right to liberty and security on the	 Right to one's own digital legacy 	Right to privacy, data		
 Privacy 	Internet (protection)		protection, and security		
· Filvacy	 Right to development through the Internet (sustainability and development) 	Right to protect one's personal integrity from technology	Right to transparency, accountability, and non- discrimination of data,		
	Freedom of expression and information on the Internet (freedom to	Right to freedom of speech on the Internet	 Right to participatory democracy, diversity, and 		
	protest, right to information, freedom from censorship, and freedom from hate speech)	Right to one's own digital identity	inclusion Right to open and ethical		
	Freedom of religión and belief on the Internet	Right to the transparent and responsible usage of	digital service standards		
	 Freedom of online assembly and association 	algorithms Right to have a last			
	Right to privacy on the Internet (anonymity, freedom from	human oversight in expert-based			
	surveillance, and freedom from defamation)	decision-making processes			
	 Right to digital data protection (protection of personal data, use of personal data, and obligations of data collectors) 	Right to have equal opportunity in the digital economy			
	Right to education on and about the Internet	Right to consumer rights in e-commerce			
	Right to culture and access to knowledge on the Internet	 Right to hold intellectual property on the Internet 			
	Rights of children and the Internet	Right to universal access to the Internet			
	 Rights of people with disabilities and the Internet 	• Right to impartiality			
	on the Internet Right to work and the Internet				
	Right to online participation in public affairs	Right to a secure Internet			
	Rights to consumer protection on the Internet				
	Right to health and social services on the Internet				
	Right to legal remedy and fair trial for actions involving the Internet				
	Right to appropriate social and internatioanl order for the Internet				

DIGITAL RIGHTS' TAXONOMIES					
Being Digital Citizens	Charter of Human Rights and Principles for the Internet [82]	Smart City Citizenship	CCDR [72]		
	(governance, multilingualism, and pluralism)				

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