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Who Owns the Intelligent City?
The Democratic Threat of
Platform Urbanism

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No. 1

Preface

Dear Readers,

there are highly controversial and diverse ideas about the concept and feasibility of an 'intelligent city'. The 22nd Karlsruhe Dialogues "The Artificial Intelligent City" in 2018 discussed the dynamics of complexly intertwined framework conditions and backgrounds of changing urban conditions. Which are the determining factors, constraints, opportunities, and risks that intelligent cities need to recognise and deal with locally and globally in order to further the goals of improved urban quality of life while also safeguarding the heritage of cultures and identities? The critical observation of the impacts of artificial intelligence makes necessary a discussion on what we regard as an 'intelligent city'.

Observing that entire societies, and with them their cities, are experiencing radical processes of (digital) transformation, we aim at taking a new look at the urban city perspective. This includes questions of far-reaching intended and, in particular, unintended effects of digitisation on concepts, strategies and realities of future cities: of how, by whom, for whom, in line with which interests, and with which opportunities and risks can inclusive urban planning processes be steered. To state things quite clearly: there are no simple answers, but there is certainly a democratic responsibility of scientists, universities and research institutions to point out possible or even just imagined, as-yet-unclear opportunities and risks of far-reaching transformations. There can be no doubt that technology, data, and algorithms can not only be useful in extending and optimising urban services and infrastructure. What we understand under the broader term 'artificial intelligence' can revolutionise environmentally friendly mobility, increased security and productivity, and innovative forms and formats of communication, coproduction, and co-creativity. At the same time participatory opportunities for active, independent citizens can also be viewed critically, strongly relativised, or even seen as severely threatened. Questions about the effects and interdependencies of, among others, digital infrastructure, surveillance and security, as well as digital resilience and 'ownership' are raised.

In this first issue of ZAK's new publication series ZAK I Occasional Papers, Leo Hollis, opening speaker at the 22nd Karlsruhe Dialogues in 2018, will present us with a highly differentiated view of our cities as socio-technical spaces, as 'urban platforms', in which space and time, technology, data, and algorithms, as well as our own perceptions, options, roles and responsibilities as citizens are closely intertwined. The perspectives and issues addressed in this paper are highly valid. They are becoming increasingly evident through the ongoing experiences of the COVID-19 pandemic which demonstrated the vulnerabilities of the 'social contract' and paralysed 'normal' urban life one year later. Leo Hollis raises unanswered questions as to how 'platform urbanism' works, whether we, as data producers and consumers, know, can know and critically appreciate which data is used in what way, for what purposes, where and by whom, and according to what criteria it is prioritised and evaluated.

I am happy to present the first edition of ZAK's new publication series with this contribution and invite all readers to join a timely and important public science debate.

Caroline Y. Robertson-von Trotha

Leo Hollis: Who Owns the Intelligent City? The Democratic Threat of Platform Urbanism

Let me start by saying that I am an urbanist. I am interested in cities. I am not a technologist. And so, if I am here to promote anything, it is the power of the city. And the idea that cities are the greatest experiment in human history. But we are entering a new chapter in the city's history, where technology, rather than people, are becoming the prime mover of our urban everyday. And as a result, we need to be very aware of the impact of this revolution.

When did we become so convinced that technology possessed the solutions for the myriad problems of the city? Why do we now think that the vast accumulation of data provides the knowledge needed to manage the metropolis wisely and equally? Can the networked public realm truly be transformed into a platform that no longer needs the messy, contingent and deeply flawed performance of democracy? Is Googlopolis a utopian city on a post-political hill? Or is it a vision of something more like a prison?

The narrative of the 21st century city is now a commonplace one. In 2007, according to the UN, the world's population became 50 percent urban. After 9,000 years of history, we finally became an urban species. Predictions note that by 2050 the majority will rise to 75 percent. But perhaps far more important, and less noted: In 2007, more objects were connected to the internet than people existed – around 8 billion of them. By 2010, 10.5 billion more objects were connected, from kettles that tweet when they come to the boil, to phones and cars, to CCTV cameras and city-wide sensors. By 2020, this figure will rise to 50 billion connected objects.

This is the physical reality of the Internet of Things. And as a result, the places of our everyday lives have become socio-technical spaces, urban platforms in which code, space and bodies are intertwined. The infrastructure of our daily rituals has become mediated, often without our knowledge or our permission. It is also increasingly invisible, so that the membranes between the online and offline worlds are no longer perceived. As a result, the barriers between the private sphere and the public realm are compromised, often unwittingly at our own invitation.

Here we are being sold a dream of the optimised city: a frictionless space where we flow like atoms, efficiently going about our business without fear of glitches or interference. Thus, we can control our homes remotely through our phones. Objects can communicate with each other – your fridge can order a new delivery of milk when it senses that you are close to running out. A weather forecast can be relayed remotely to the traffic grid in order to anticipate congestion. Sensors and monitors now meter how we use utilities such as electricity or water, so that streetlamps only turn on when they sense a body walking towards them. Smart meters can ensure that we use water more sustainably.

Sounds good, no? Who would not want to live in such a well measured urban quarter? Descriptions like this, however, remind me of Marshall McLuhan's memorable phrase: "The 'content' of a medium is like the juicy piece of meat carried by the burglar to distract the watchdog of the mind" (McLuhan 1964: 8).

So who is the burglar in the Intelligent City, and what do they want?

Every form of innovation has some kind of political impact. In addition, nothing to do with the city is ever neutral. The networked future will profoundly alter our experience of the world, how we interact with each other, and the kind of knowledge that gives us agency over our own lives, that allows us to flourish. Our democratic future depends on the equitable access to this information. But this is increasingly being denied. In fact, within the new "political, economic, and cultural arrangement of institutions and network devices" (Howard 2015: xx.), new relationships and power structures are being drafted between traditional political offices and those who are in control of the data flows. There seems to be little space for the citizen in this new politics, except as a provider of rent or as a source of data.

This, in brief, is how Platform Urbanism works:

1. Since the Enlightenment, we have been told that information will make the world clearer. Under that assumption, we have come to believe that more information will further enhance our understanding of our environment. But this has proved a very dangerous mistake.
2. The gathering and distribution of this information has not made the world more transparent; in fact, it has become increasingly opaque. We used to be able to understand the organisation of the city by looking at the street plan, by studying the materiality of the physical infrastructure, by reading its human flows. Today, that infrastructure has become all but invisible. The street has been replaced by data flows encoded by proprietary software.
3. At the same time, the vast seas of distributed urban information are in the hands of private operations: either corporations, platforms or the state. All data is profitable data; therefore it has been commodified and is distributed according to market rules.
4. As a result, we can only access the vital data through networked devices – smart phones, computers, monitors. These devices offer us access to the network infrastructure, but not without compromises and negotiations. At its most basic, the iPhone is the sum of its technological and design decisions, but in addition, it is designed with political and ideological precepts that are easily overlooked. At its most basic this is the Silicon Valley consensus – a set of assumptions about the world.

5. This, in turn, reinforces and consolidates existing inequalities – not just of gender, but also of class, race and capabilities. It is also encouraging new ruptures and inequalities, like those exacerbated by the digital divide, which are too often ignored.
6. Finally, Platform Urbanism prioritises, and valorises networked data above all other forms of knowledge. This reduces the domain of the debate, and limits the horizon of our interactions. As quantifiable forms of knowing become the new normal, they come to replace custom, experience and even the power of 'not knowing'.

As you can see, the Intelligent City demands a rebalance of power. It is therefore no irony that the first book selected by Mark Zuckerberg's book club was *The End of Power*, which has little time for the messiness of democracy, noting: "Politics was always the art of the compromise, but now politics is downright frustrating – sometimes it feels like the art of nothing at all" (Poole 2015). Reduce everything to the data, he seems to be saying, and you no longer need to listen, discuss, negotiate: Data, and those who control it, will dictate what is the right thing to do.

Nonetheless, I argue in response, we should not just damn the Silicon Valley consensus, and claim some Luddite future for ourselves. We cannot, and must not, turn our backs on technology. But we should reframe the question. If we are talking about the Intelligent City, we should take this opportunity to keep three simple, but for me profound, questions in mind: What is the City? Who is the City for? What is the role of public space?

It is only after we have asked ourselves what kind of cities we want to live in that we can then see how we might use technology to develop a creative, open place for all.

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How do we see and come to understand the city? How has networked technology changed the ways we encounter the urban realm? Let's contrast two scenarios.

In 1969, William H. Whyte, the author and former editor of *Fortune Magazine*, started a new job at the New York Planning Department. As he entered his new role, he decided to conduct a series of experiments. He hired a group of students from Hunter College, part of the City University of New York, whom he stationed at various locations around the city. Their instructions were to watch how people came and went, how they used the city. The results were a revelation, later called the "Street Life Project" (Whyte 1988/2009).

Whyte was most interested in how people met and interacted, in how collective behaviour made public spaces by practise as much as by design or law. For Whyte, these observations proved that people rarely used the city in the ways intended. Instead they created their own public spaces, in which they played out moments of intimacy and connection.

The city is made of such unexpected moments of gentle chaos. They can be charted by desire paths that are scratched on the map of the city by common use, rather than design. Whyte's experiments showed that people do not behave in rational ways or follow the planned logic of places, but rather that they find their own ways to get around the urban landscape, carving out their own pathways to citizenship.

Contrast this with the recent innovation of facial recognition advertising boards. You may not have noticed them yet, but they are there.

In 2016, Yahoo applied for a patent for a 'smart' billboard. The billboard would collect data through innovative sensors, cameras and microphones embedded within the urban fabric – all without the permission of the passer-by or pedestrian. Not only could the data be gathered and later sold to help craft highly targeted ads for future billboards, it could be processed and read in real-time, giving the advertiser the ability to dynamically alter the advertisement depending on audience makeup and behaviour.

The billboard could collect biometric data on passers-by to "determine whether the audience corresponds to a target demographic". It would "identify specific individuals in the target audience". Microphones could collect conversations that would reveal audience reaction to the ads, and proximity sensors could show how close people get to the billboards. Eye-tracking sensors could determine whether passers-by are looking at the ads and for how long. Image recognition techniques and mobile data could be used to form a more focused profile of the audience (Liffreing 2016).

Elsewhere, advertising giant M&C Saatchi is currently testing advertising billboards with hidden Microsoft Kinect cameras that read viewers' emotions and react according to whether a person's facial expression is happy, sad or neutral.

Of course, advertisers are meant to behave in such ways, and we, as consumers, can – and should – ignore their temptations. However, both these scenarios tell us something interesting about the way those in power observe how people use the city, and why. Whyte wanted to see how people came together because he believed that the identity of the city came from such communal activities. In contrast, the billboard is constantly sorting, dividing up and measuring each face. The algorithm is primed by a set of pre-conditioned parameters of what makes a buyer and will target them as they walk past.

The same technology that can discern age, sex, race, emotion, and class has many uses. The recent Russian app FindFace allows you to search an uploaded portrait against the 200 million users of the social network VKontakte. Recently, the developers inked a contract with the Moscow City administration to add their software to the 150,000 CCTV cameras around the city – again without the citizens' permission, or their knowledge. Your social media timeline now helps the state track you across the city. This is not something anyone expects in the terms and conditions of use.

Adam Greenfield, in his groundbreaking book *Radical Technology* (Greenfield 2018), tells the 2016 story of the Chicago Police Department's "Heat List", later renamed the "Strategic Subject List". This was an algorithmically compiled list of the 1,400 residents most likely to commit or suffer homicide at some unspecified time in the future. The algorithm picked up data on known associates, family relations, as well as geographical proximity to known homicides. But the code itself is proprietary, and therefore a closed black box to those it most affects. This resulted in an outreach programme where the city police began to visit citizens who, without their knowledge, had been added to the list, where they were given 'custom notifications'.

This is guilt before the crime. It is also racial profiling. However, more disturbing were the assumptions that because the "Heat List" was developed by code, it could not be biased, and that this is legitimised predictive policing, provided by the private sector, which permits the withdrawal of certain civil liberties as a result of software outputs. It is guilt by algorithm. The Internet of Things watches us, it measures us, and by opaque and often disturbing criteria, it judges us.

And, as has so often been highlighted, because we have no means to challenge the way the data is collected or the code itself that processes it, it is almost impossible to know why we have been judged this way.

Furthermore, we should not assume that these techniques actually work. Recently, MIT road tested the three most prominent commercial facial recognition software systems: Microsoft, IBM and Megvii. It found that it could correctly identify the gender of 99 percent of the white men it viewed, but then the percentages fell away as it attempted to identify different racial identities, and reached a low of 35 percent accuracy for all women (gendershades.org).

Back then, in the case of the Chicago "Heat List", despite being sold around the world as the future of policing, and after four upgrades to the software, a RAND corporation report found there is no evidence that the homicide rate was reduced by this invasive policy. There may be some reasons for this. On one hand, the code may be right but the law does not allow for any effective pre-crime action. As a police superintendent notes: "We are targeting the correct individuals. We just need our judicial partners and our state legislators to hold these people accountable" (Davey 2016).

Perhaps most damning, those institutions invested in the scheme could not see beyond the list as a means of policing. For while the algorithm identified the most vulnerable in society, those at risk of being the perpetrators or victims of violent crime, they were from then on seen as victims or criminals, nothing more. They were no longer seen as citizens in need of social care or other forms of help.

So Platform Urbanism sees the city in new ways. It separates out. It identifies through a series of processes those who are to be targeted, and those who are not. It bases these identifiers upon systems of identification that are unseeable, and unaccountable.

But the information that such protocols are based on is always flawed; the data set is never complete.

Despite claims of neutrality, code is always embedded with prejudices, blind spots, bias and worse. The systems that organise these sortings and separations are hidden within an algorithmic black box that only allows certain people to control, change or understand it. Yet it is being integrated into our urban environment as if it possesses superhuman omniscience.

The recent book *Everybody Lies* proposes that computational thinking by Big Data is more useful – and truthful – than previous forms of knowledge-making. The book states, “Big Data allows us to finally see what people really want and really do, not what they say they want and say they do”. The author continues with the bold claim that the collected set of Google searches constitutes the “most important dataset ever collected on the human psyche” (Stephens-Davidowitz 2017).

Is he saying that we should no longer trust people on what they say and do, only on the digital traces that they leave across the networked platform? Are we meant to discount everything we know about another person which does not appear on some harvested data set? Are we, therefore, nothing more than the sum of our data?

What happens when this belief in the primacy of data over all other forms of knowledge is then imposed upon the city? Take the example of Autonomous Vehicles (AVs). The future of AVs comes with many qualifications – it is far too early to say whether it will ever happen. We have seen crashes and delayed schedules, as well as incredible innovation.

In recent weeks the German government has released their first response to the most pressing philosophical question concerning the introduction of Autonomous Vehicles into the urban environment: the so-called trolley problem (BMVI 2017). This is the moral question of what to do if you were driving a vehicle on a road along a cliff and you suddenly came across a group of children in the road. You cannot avoid the children without driving off the cliff and killing yourself. So what do you do – kill yourself or drive into the children?

As a driver, you have the agency to make your own moral decision, and face the consequences. But who makes this decision in an AV? Who should decide whether the algorithm makes one choice or another? Do you presume a company like Volvo will offer one option – the safety route, say – while Uber offers another – the preservation of those who are paying? And in the end, should we let the market decide this moral quandary?

The German Ethical Committee decided that a self-driving car should choose to hit whichever person it determines it would hurt less, no matter their age, race or gender, and that the preservation of life was far more important than property. These seem like eminently progressive and considered conclusions, but they raise some terrifying concerns: If a car can discriminate by gender, race or age, what if, at some point in the future, these moral algorithmic loops can be hacked? Can we encode an ethical framework into the whole networked environment of Platform Urbanism?

Furthermore, when the public realm is in the hands of a plethora of private concerns – platforms, Application Programming Interfaces (APIs), app developers – each with their own code and frameworks, how are they going to find an ethical consensus?

At present, these moral questions are being debated in the US at the state level, so that California, Nevada and Michigan have produced different guidelines. But can a car that can cross state lines, and even national boundaries, really conform to different ethical standards? Or will the power of the algorithm supersede whatever kind of legislation the local or national executive can impose? In this way, the major platforms – Google, Facebook, Amazon, Apple – are in the realm of being more powerful than states.

And, therefore, in the scenario of a crash or accident, can we take an algorithm to court? Are we expected to devise new laws based upon the data produced during the extensive testing period, or should we be establishing limits and boundaries from the outset that the technology must conform to?

Furthermore, we will surely be forced to redesign the city populated by AVs in the same way that we redesigned the post-war city around the traditional automobile. But who will be the Robert Moses of the Intelligent City? Will they work for City Hall or for Google?

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The network technology of the Intelligent City is changing the way we design and use the metropolis. This goes hand in hand with the wide-scale flow of data that is being collected across the networked urban landscape – from weather reports, smart meters, congestion monitors, traffic flows, consumption patterns and crime hot-spots to pedometers, energy surges, happiness gauges, employee work rates, public transit schedules and stock market fluctuations.

This information is always mediated, and always unevenly distributed. And the results of this can be seen in the redistribution of power and the formation of new inequalities. One of the areas where this will become increasingly conflicted is the question of privacy.

It is increasingly difficult to find the edges between the private and the public world. This is intentional. From the outset, developers like the visionary Mark Weiser at Xerox PARC hoped that “the most profound technologies are those that disappear. They weave themselves into the fabric of everyday life until they are indistinguishable from it” (Weiser 1991). When it is no longer possible to tell where the network ends, we are in trouble.

It was Edward Snowden who said: “Privacy is the right to a self... Privacy is what gives you the ability to share with the world who you are on your own terms” (Schrodt 2016). But the ability to share, and to withhold, or to take back private information is becoming increasingly difficult.

Richard Clarke, the former White House security chief, announced in July 2014: “Over time, there will be fewer people who recall pre-Information Age privacy, more people who will have grown up with few expectations of privacy”. He later made it clear that future expectations for privacy would also be unequally distributed: “Privacy may then be a commodity that only the wealthy can acquire” (Clarke 2014).

So privacy becomes a luxury that only the rich can afford. How does this affect the rights of the rest of us? On the one hand, we have ourselves to blame. Every time we sign up to a set of terms and conditions, we are giving over to a corporation the right to mine our everyday lives for valuable information. As the famous Silicon Valley saying goes: “If you are not paying for the product, you are the product”. This is the essence of surveillance capitalism, which drives the advertisement model of the major platforms.

Most of these terms and conditions promise confidentiality. But this is difficult to police. While corporations must never reveal private information such as name or address, 80 percent of all Americans can be identified by the three pieces of information that are regularly sold: sex, age and zip code. This is an asset that offers those who have access to it a better appreciation of the world, and yet it does not belong to us, and we have no control over it, or rights to it.

Just as the smart city becomes a network of surveillance, the smart home watches, measures and counts the quantifiable data of our everyday lives. From now on, our everyday objects will be connected into an ever vaster web that will monitor and make our lives more efficient. Lights will turn on when you wake up, the coffee machine will start to bubble as you get into the shower, the bathroom cabinet will tell you to take your medicine, the fridge will order items even before you know you are running low. Your television will remember what you like to watch and record anything that it thinks you will enjoy. And once you have left the house, the gadgets that enable your productive life will switch off to save energy and ensure the safety of your home. But if these devices are in control of your home, who owns these devices?

Perhaps the most invasive innovation in recent years – and a hugely popular one – is that of the voice recognition home computers: Dot devices, Amazon Echo and Google Home, amongst others. These devices sit within one’s living space, constantly listening in to family life, waiting for the activation word so it can spring to life. But in order to hear that activation word, it must also listen to every other word that is spoken. When it was discovered last year that Google Dot devices were recording everything that they picked up, this was called a glitch. And Google promised to change the software.

But this is too important to leave to the platforms that make their money harvesting such data. And this data is now determining every aspect of our lives today: whether you can buy a house, if you can get credit, whether you are eligible for health assistance, insurance, employment, education, even the right to citizenship. In short, this gathering of private data determines who you are and what your future holds. As one commentator wittily puts it, surveillance “is Orwellian when accurate, Kafkaesque when inaccurate” (Kaltheuner as cited in McNeil 2018).

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This becomes especially Orwellian when we start to consider the use of ‘social credit’ that the Chinese government has developed as a means to encourage trust – and a nationwide reputation scheme. Conceived in 2014 by the Central Leading Group for Comprehensively Deepening Reforms, it gathers together every scrap of data about an individual and creates a scoring system based on four areas: ‘honesty in government affairs’, ‘commercial integrity’, ‘societal integrity’ and ‘judicial credibility’. Eventually you will be given a three-digit sincerity score that can rise and fall, depending on your transactions, behaviour and social interactions.

The state has worked closely with the leading private platforms: Alibaba’s Alipay, Tencent, Baidu, the transportation-on-demand service Didi Chuxing, and the massively popular dating site Baihe are all either responsible for developing the system’s architecture or have already incorporated its rulings into their services.

This number replaces all other forms of reputation and trust. Furthermore, it will have a strong influence on where you can rent, what kind of jobs or educational opportunities you’ll be eligible for, and even what mode of transportation you use to get around. This in effect is taking credit scoring as a tool of social discipline to its logical conclusion. Everything can be reduced to data. All data can be quantified and measured. And the sum total of these measurements can become the most important thing about you, and influence all aspects in your individual and collective lives.

Alibaba executive vice chairman Joe Tsai makes clear that the role of social credit is “so they know to behave themselves better” (Greenfield 2018). This algorithm regime has replaced all other forms of socialisation or communal observation when it comes to

civility. From the modest loyalty scheme to 24/7 surveillance – this is why the Intelligent City has become such a threat to democracy. And we need to do something about it now. It may not be too late.

Our human cities depend on trust. It is the glue that binds us together. However, it is also a fragile thing. Often we consider – like Francis Fukuyama – that trust is a transaction, that it emerges within the exchange. There can also be trust in a reputation. There is trust in processes as well.

In a city, trust depends on two things: First, a public space where trust can be exercised. If we never need to test our trust of each other, we get out of practise. Secondly, trust withers in conditions of inequality. Both of these things – the privatisation of public space and growing inequality – are characteristic of the contemporary city.

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I don't want to end this without a sense of hope, or at least a challenge. As I said before, the more we think about the power of the city and the less we think about technology as a solution, the better we might consider how to use technology as a tool to make cities the kind of democratic, fair places where we can all flourish.

Daniel Doctoroff, the CEO of Google-owned Sidewalk Labs, asserts that we should build the city “from the internet up” (Doctoroff 2016), and recently announced that Sidewalk Labs has struck a deal with Toronto to take an 800-acre space and turn it into a place that “combines the best in urban design with the latest in digital technology to address some of the biggest challenges facing cities”. But is this what makes a city? A city is a place where strangers meet. However, something happens when this occurs on a large scale.

One of my favourite writers, the Toronto resident Jane Jacobs, who would have surely campaigned against the Quayside project mentioned above, writes about what happens when people meet in public spaces in her book *The Death and Life of Great American Cities*. In perhaps one of the most moving extracts of urban writing, she describes the ballet of a good urban sidewalk: “Something is always going on, the ballet is never at a halt, but the general effect is peaceful and the general tenor is leisurely. People who know well such animate city streets will know how it is” (Jacobs 1961: 66).

In this scenario, a public space is where people come together and allow their lives to intertwine. But as that happens something else occurs – and those individual lives become more than the sum of their parts. The city becomes more powerful, more creative, as the lives of the individual citizens mingle.

One does not have to agree with Jürgen Habermas to suggest that the public realm is the place where people come to learn the rules of living together. But in truth, there is no other place where this can possibly happen. Yet the public realm should not be a place where everyone comes together and learns to agree. The public realm should be a place where people are able to disagree, to challenge one another and to be transformed.

We are losing the courage to place the city – the people who live, work, struggle here – at the centre of any solution that might address the problems of the city itself. I am a passionate believer in what I call a ‘Social Urbanism’ (Hollis 2014). And technology undoubtedly has a part to play in this.

But in this new civic equation, we must ask how technology can facilitate and encourage a more democratic city – one that redefines the Intelligent City as a common wealth, rather than as a privatised code/space. As Jane Jacobs wrote: “Cities have the capability of providing something for everybody, only because, and only when, they are created by everybody” (Jacobs 1961: 238). This commitment to the commons, the shared responsibility for the care of public spaces, and the fair distribution of the benefits of urban living, takes many forms and can be fought on many platforms. It can be found in shared ownership schemes, such as housing. It can also be found in the struggle for the public spaces of the city.

In the digital sphere, I am particularly excited by a number of different attempts to take back control: local networks such as Exarchia Net in Athens, which is a community-generated Wi-Fi network aimed at bringing internet access to refugee housing and solidarity projects and at developing neighborhood community Wi-Fi projects; or the Red Hook WiFi mesh in Brooklyn, a local network that was crucial following Hurricane Sandy when all regular internet was down (redhookwifi.org).

The prospects of platform cooperatives, like the DECODE programme in Barcelona and Amsterdam (decodeproject.eu), are incredibly exciting, and are being developed by City Hall. The platforms look at ways that we can maintain possession of our own data, breaking the monopolies of the Silicon Valley platforms. This is a reminder of the essential questions that we forget to ask at our peril: Who is the city for? If the city is not for all, it is not for anyone. If there is to be an urban future, it will emerge from a revolution in everyday life, an embrace of urban complexity, with all its human complications. The future is the city, and the city is a common wealth.

References

Bundesministerium für Verkehr und digitale Infrastruktur (BMVI) (2017): Federal Government Adopts Action Plan on Automated Driving. Press Release, 28.08.2017. Online: <https://www.bmvi.de/SharedDocs/EN/PressRelease/2017/128-dobrindt-federal-government-action-plan-automated-driving.html> [30.04.2018].

Clarke, Richard (2014): Richard Clarke on the Future of Privacy: Only the Rich Will Have It. In: *The Wall Street Journal*, 07.07.2014. Online: <https://www.wsj.com/articles/richard-clarke-on-the-future-of-privacy-only-the-rich-will-have-it-1404762349> [31.01.2020].

Davey, Monica (2016): Chicago Police Try to Predict Who May Shoot or Be Shot. In: *The New York Times*, 23.05.2016. Online: <https://www.nytimes.com/2016/05/24/us/armed-with-data-chicago-police-try-to-predict-who-may-shoot-or-be-shot.html> [31.01.2020].

Doctoroff, Daniel L. (2016): Reimagining Cities from the Internet Up. In: *Medium – Sidewalk Talk*, 30.11.2016. Online: <https://medium.com/sidewalk-talk/reimagining-cities-from-the-internet-up-5923d6be63ba> [31.01.2020].

Greenfield, Adam (2018): China's Dystopian Tech Could Be Contagious. In: *The Atlantic*, 14.02.2018. Online: <https://www.theatlantic.com/technology/archive/2018/02/chinas-dangerous-dream-of-urban-control/553097/> [31.01.2020].

Hollis, Leo (2014): Why Social Urbanism Matters for Sharing Cities. In: *Shareable*, 12.02.2014. Online: <https://www.shareable.net/why-social-urbanism-matters-for-sharing-cities/> [31.01.2020].

Howard, Philip N. (2015): *Pax Technica. How the Internet of Things May Set Us Free or Lock Us Up*. New Haven & London: Yale University Press. Online: https://cts2017blog.files.wordpress.com/2017/01/philip-n-howard_pax-technica_2015.pdf [31.01.2020].

Jacobs, Jane (1961): *The Death and Life of Great American Cities*. New York: Random House.

Liffreing, Ilyse (2016): Yahoo's "Smart" Billboard Takes Outdoor Data-Collection to the Next Level. In: *Campaign*, 14.10.2016. Online: <https://www.campaignlive.com/article/yahoos-smart-billboard-takes-outdoor-data-collection-next-level/1412220> [31.01.2020].

McLuhan, Marshall (1964): *Understanding Media: The Extensions of Man*. New York: McGraw-Hill.

McNeil, Joanne (2018): Big Brother's Blind Spot. Mining the Failures of Surveillance Tech. In: *The Baffler*, No. 40, 03.07.2018. Online: <https://thebaffler.com/salvos/big-brothers-blind-spot-mcneil> [31.01.2020].

Poole, Steve (2015): Why Would Mark Zuckerberg Recommend the End of Power? In: *The Guardian*, 08.01.2015. Online: <https://www.theguardian.com/commentisfree/2015/jan/08/mark-zuckerberg-the-end-of-power-facebook-book-club> [31.01.2020].

Schrodt, Paul (2016): Edward Snowden Just Made an Impassioned Argument for Why Privacy is the Most Important Right. In: *Business Insider Deutschland*, 15.09.2016. Online: <https://www.businessinsider.de/edward-snowden-privacy-argument-2016-9?r=US&IR=T> [31.01.2020].

Stephens-Davidowitz, Seth (2017): *Everybody Lies: Big Data, New Data, and What the Internet Can Tell Us About Who We Really Are*. New York: Dey Street Books.

Weiser, Mark (1991): The Computer for the 21st Century. In: *Scientific American*, September 1991, pp. 94–104. Online: <https://www.lri.fr/~mbl/Stanford/CS477/papers/Weiser-SciAm.pdf> [31.01.2020].

Whyte, William H. (1988/2009): *City. Rediscovering the Center*. Philadelphia: University of Pennsylvania Press.

Online References

Project DECODE. Online: <https://decodeproject.eu/> [31.01.2020].

Project Gender Shades (MIT Media Lab). Online: <http://gendershades.org/> [31.01.2020].

Project Red Hook WiFi (Red Hook Initiative). Online: <https://redhookwifi.org/> [31.01.2020].

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Leo Hollis was born in London in 1972. He studied History at the University of East Anglia, and started working in publishing. He is the author of two works on urban history: *The Phoenix. St. Paul's Cathedral and the Men Who Made Modern London* (2008) and *The Stones of London. A History in Twelve Buildings* (2011). In 2013, he published the international bestseller *Cities Are Good for You. The Genius of the Metropolis*. Hollis has written for, amongst others, the Times Literary Supplement, the Financial Times, the Guardian, and the New Statesman. He has lectured and given public talks on contemporary urbanism across the world, including at TEDx, the Strelka Institute for Media, Architecture and Design in Moscow, and the Academy of Urbanism in London. Hollis is senior editor at the publishing house Verso Books.



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About the Karlsruhe Dialogues

Link to the lecture of Leo Hollis at the Karlsruhe Dialogues 2018 (ZAKVideoclips):
<https://www.youtube.com/watch?v=uywLMFNQgFQ&list=PL0TmH52ybqldkQA-GRQvt2rAxaFbwidMpF&index=4&t=0s>

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