1. What if Government Was a Game?

Black Mirror is an award-winning British TV anthology that explores real and imagined fears and paranoia around technology. In 'Nosedive', the opening episode of the third season, we are introduced to Lacie, a woman desperate to boost her social media score. In a world where people rate each personal interaction on a one-to-five stars scale, an individual's average rating has significant influence on societal status. When the episode begins, Lacie is rated 4.2, which is a good, solid score but below what might be considered 'elite'. But Lacie is ambitious - she wants to raise her score to 4.5 and qualify for a luxury apartment. After her initial attempts to impress people fail, she hires a consultant who suggests she gets approval from highly ranked people whose ratings carry more weight. When she is subsequently invited to the high-society wedding of a childhood friend, she believes her own score will increase once she gives a fantastic speech to wedding guests (all of whom are rated 4.5 or higher). But her efforts have disastrous consequences. A number of incidents shatter her rating, destroying her freedom to book a flight, rent a car, and eventually, attend the wedding. By the episode's conclusion, Lacie is removed from society -imprisoned, with the rating technology stripped from her body. The episode closes with Lacie getting into a heated argument with another prisoner, realising how liberating it is to express herself without worrying about being rated.

There is a lot in 'Nosedive' that is reminiscent of a video game. A positive rating is accompanied with a high-spirited warble, whereas a negative score is accented with a gloomy tune. Life is a constant struggle for higher scores. Scaling up means cooler friends, healthier food, superior services—in summary: a better life. But it is no easy feat; getting high ratings requires full-time dedication and strategy. It is extremely time consuming, and not without risks. It seems like, for want of a better phrase, hard work.

It would be easy to dismiss the world in 'Nosedive' as science fiction, a parallel universe existing only on the screens of televisions and smart devices. Except for one factor. Much of what is narrated in the episode seems to be already happening in reality. So, what if the world depicted in 'Nosedive' was much closer to our own than we realise? What if the pursuit for better ratings, or their equivalent, was already part of our lives? What if governments, public bodies and organisations were already using technology in similar ways to those in 'Nosedive', transforming the exercise of public power into a game?

1. Not your average tetris

Picture a government that measures civic value on a numbered scale, with civic performances tallied on leader boards, like a football match. Imagine if civic value was viewed as a game played by everyday citizens, sometimes in competition, other times working in harmony towards a common goal. And imagine that winners were celebrated (and losers blamed) collectively—in a sort of Gibsonian 'consensual hallucination'.[1] Sound a little far-fetched? Think again. Residents of Santa Monica, in California, can now swipe left or right on a Tinder-like website, to like or dislike the municipal council's proposed changes to their local neighbourhoods. Citizens of Boston share information on traffic, criminality,

[11] See W. GIBSON, *Neuromancer*, Ace Books, 1984.

Wi-Fi availability and waste management with the office of the mayor. In so doing, they help to evaluate the performance of their city, which is rated on a graded scale, and shared on a publicly accessible digital dashboard. In New Mexico, residents of Albuquerque can monitor 'acts of [civic] kindness' with a dedicated app. Thousands of miles south, Peruvians can track vultures trained to seek out illegal garbage dumps via GoPro cameras and GPS devices fitted to their bodies. Across the pond, Europe is no exception. Dubliners receive up to €200 in vouchers by helping the city council monitor public toilets and fountains located in the city parks. Madrid residents with ideas about how to improve community life can share them online via a dedicated website. Ideas with enough interest and 'likes', may be voted on by the municipal council and actually implemented. Similarly, residents of Barcelona can join an online consultation forum, present their ideas on issues regarding local public services, and rate those of others by supporting or opposing them. Heading east, we meet Muscovites who are rewarded with points every time they vote on a dedicated e-voting platform. Points can be redeemed to pay parking tickets and metro fares, or to enter contests to win opera tickets. In the Chinese city of Suining, citizens are rewarded or deducted points according to their social behaviour. Do you take care of a family member? You earn fifty points. Have you been convicted for drunk driving? Fifty points are deducted. Depending on your overall grade, you could be given priority in employment, or even denied access to some social services.

Moving beyond national borders, the story continues. If you resist the temptation to use your mobile phone for fifteen minutes, or correctly guess the meaning of a fancy English word, you can trigger donations sponsored by the United Nations (UN). Are you good at coming up with solutions to tackle global problems like famine, climate change or diversity? There is a game for that, too. All you have to do is to engage in a weekly game called *Evoke*, and liaise with players from all over the world. You might have a chance to have

your ideas evaluated (and implemented) by the World Bank's (WB) officials, in Washington.

Gamified public power is much closer to reality than it may first appear - and as Eugeny Morozov ironically points out, it looks nothing like 'your average Tetris'.[2]

2. Imagining the future of public power

So how should this make us feel? Should we be glad? Worried even? Probably both. This is what this book intends to cover. It is an investigation of strategies of 'gamification' by national and supranational regulators. In this respect, the mode of analysis of this book is largely descriptive, in that it offers a comparative overview of several forms of governance that attempt to innovate through entailing game elements. Beyond that, it aims at exploring the potential—but also at understanding the limits—of the use of gamification in the public sector.

It is worth remembering that gamified governance's legal, societal, political and cultural challenges remain unexplored. Almost no empirical testing has been done on the number of legal regimes interested in this phenomenon, and to identify what kind of capabilities public regulators must develop to leverage the benefits of gamification and deliver public outcomes effectively.

To date, no research has attempted to determine if and how gamification strategies differentiate across policy stages and areas. Above all, no study has determined whether gamified governance fosters or discourages civic engagement. And although it probably goes beyond the capacity of this book to resolve all these challenges, it is my modest aim to contribute to the task of imagining what the exercise of public power might become, including its promises and threats.

[2] See E. MOROZOV, *To Save Everything, Click Here*, Penguin, 2013.

3. Gamification, governance and regulators

At the outset, all this information might be a little hard to process. So, let's just take a step back for a moment and briefly clarify some of the terminology related to gamification, governance and the regulators described in this book. In its most commonly used and widely accepted definition, gamification describes the introduction of game design elements (badges, points, levels, rankings, challenges, virtual currencies, etc.) into non-game contexts, with the former aimed at making the latter more enjoyable.[3]

A common misconception is that gamification and games are the same thing - they're not. The use of game mechanics, as Alan Chorney puts it, does not necessarily make a product a video game.[4] Gamification is comparable - albeit not entirely equivalent - to three concepts. First is 'games with a purpose' - that is, systems that invite individuals to collaborate in performing tasks that require skills that humans possess better than computers (as, for instance, with the practice known as 'image recognition'). Second is 'serious games' - that is, games aimed at teaching or training individuals to perform particular tasks, possibly with the inclusion of game-like enjoyable features. Third is 'loyalty programmes' - that is, economic incentives adopted in business practices, typically in the case of stamp collection. Each of these concepts differ somewhat from each other, but have in common the notion that games may well be used beyond the boundaries of fun and entertainment.

Undeniably, gamification has become a slogan, used and (increasingly often) abused. At one count, a Google search for the term 'gamification' produces more than 9.5 million results - with more than 52,000 appearing in Google Scholar alone. It is also possible

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[3] See S. DETERDING, D. DIXON, R. KHALED & L. NACKE, 'From game design elements to gamefulness: defining gamification' in *Proceedings of the 15th International Academic MindTrek Conference: Envisioning Future Media Environments*, ACM Press, 2011; B. BURKE, *Gamify: How Gamification Motivates People to Do Extraordinary Things*, Bibliomotion, 2014.

[4] See A.I. CHORNEY, 'Taking the game out of gamification', *Dalhousie Journal of Interdisciplinary Management*, 8.1, 1-14 (2012).

that the term will eventually become outdated as journalistic interests move on to the next buzzword. At present, however, it remains the best definition to capture certain evolutions of innovative policy-making. Gamification, in fact, presents three advantages. First, it allows us to portray a large number of experiences, promoted by different actors, in distant geographical locations and different times. This conceptual broadness is beneficial to elide issues of variance (and instead focus on the commonalities) among the case studies discussed in this book. Second, the notion of gamification has a sufficiently 'neutral' meaning to avoid misleading - that is, ideologically charged - interpretations. By contrast - and this is a third motive for using the term - it can be argued that 'gamification' is sufficiently provocative to define avenues of experimentation in governance by public powers, both national and supranational.

Moving from one buzzword to another: governance. Differently from gamification, governance has no universal definition and has come to mean different things in different contexts. In the context of this book, the concept of governance will be used in its broadest connotation—to refer to all the structures and processes that allow a public authority to conduct affairs. Phrases like 'policy-making' or 'decision-making', it goes without saying, are used as terminological variances of the same concept.

Those 'responsible' for governing are described in this book with a single word: regulators. This definition encompasses domestic and supranational actors. Domestic, or national, regulators are all public authorities charged with regulatory powers and operating within national boundaries. These include governments, parliaments, regional and municipal administrations, independent authorities and agencies, where there are any. Supranational regulators are all institutions of an executive or supervisory nature, established by or in conformity with a treaty, and responsible for the application of rules

which it implements itself or which mandates others to implement.[5] Hence supranational regulators include both organisations that are properly described as international organisations - the UN, for instance - and those that instead are termed supranational, the European Union (EU) being a case in point. Of course, international and supranational have fairly specific, and different, meanings in legal terminology, which makes of the simplification adopted in this book one that, in more formalised contexts, would be treated as an unforgivable mistake. In the context of gamified governance, however, international and supranational organisations are equivalent. Similar are the strategies adopted, equivalent the expected outcomes and equal the risks - in short, supranational gamified governance does not make use of (nor does it distinguish between) the legal status of the regulator involved.

4. Innovation and tradition

We earlier asserted that gamification opens up governance to innovative perspectives. Let's now fine-tune this concept a little. In reality, gamified governance combines innovation with tradition. The gamification of the exercise of public power is a very recent phenomenon, and yet it dates back centuries. The term gamification hadn't even been invented twenty years ago. According to some, it was coined by Nick Pelling in 2002. But its first documented use only dates back to a 2008 blog post by Bret Terrill.

Conceptually, however, the application of game design elements, principles and practices in non-game contexts is as old as government itself. Games were part of the inner public sphere in Greek and Roman societies and have existed in some form or other throughout the history of public power. Plato compared politics to a game whose scope is the efficient allocation of the available resources. In ancient

[5] For a discussion on the differences and similarities between international and supranational public authorities, See H.J. Hahn, 'International and supranational public authorities', *Law and Contemporary Problems*, 26, 638-665 (1961).

Rome, it was common to provide poorer citizens with free wheat and circus games as a means of gaining political power. Decried by Juvenal in the fourth book of his *Satires*, *panem et circenses* (bread and circuses) was a way to offer easy sources of gratification, distract people from more serious matters and eventually gain their political support. Almost 300 years before Juvenal, the population of Lydia, a region in western Anatolia, invented the games of dices, knucklebones and balls during an eighteen-year famine, as a distraction from hunger. Herodotus, in *The Histories*, wrote that the Lydians played games every second day to forget the need for food. The day after, they stopped the games to eat.

John Gastil and Laura Black go as far as to claim that deliberative processes are inherently gamified.[6] Both decision-making and games are governed by rules, have goals and may turn on unexpected events. Fair enough. What is certainly novel, however, is the attention paid by national and supranational regulators to the motivational and behavioural effects of game mechanisms, and their 'proceduralisation' in policy-making. The records show a dramatic expansion of gamification within the public sector. When the research and advisory firm Gartner acknowledged it for the first time in 2012, it forecasted that, within two years, more than 70% of the top 2,000 public organisations worldwide would have at least one gamified application in place.[7] Since 2013, the company has included gamification among their top-ranking prospects in the 'Hype Cycle for Digital Government Technology' - a cycle that identifies promising technologies for future social innovations. According to the 2014 Hype Cycle for Emerging Technologies, gamification has surpassed the 'Peak of Inflated Expectations' and is expected to reach the 'Plateau of Productivity' in the next five to ten years. Together with robotics, artificial intelligence, biometrics and data, (serious-)

[6] See J. Gastil & L. Black, 'Public deliberation as the organizing principle of political communication research', *Journal of Public Deliberation*, 4.1, 1-47 (2007).
[7] See B. Burke, *Gamification 2020: What Is the Future of Gamification?*, Gartner, 2012.

games are recognised among the technological paradigms that are shaping the evolution of public administrations.

5. Technologies and public power

So, gamified behavioural approaches are becoming trendy in national and supranational governance - but why? What causes are contributing to the shift in policy-making from traditional top-down, expert-driven, methods of governance to more experimental approaches? Obviously, several explanations may account for the growing interest in gamification within the public sphere. In this chapter, we describe four: the first, and main, consists of the diffusion of technologies in the public sector; the second relates to the lack of trust in politics and policy-making, and the consequent attempts by regulatory authorities to attract the disillusioned citizenry into public life; the third and fourth consist of financial constraints and regulatory complexity, respectively.

But if one cause of the growing relevance of experimental approaches to governance had to be singled out, it would be the profound impact that new technologies have had on the exercise of public power. With very few exceptions - Hannah Arendt, for example, who expressed her scepticism of the prospects for politics in relation to technology—there has been widespread agreement that, following the advent of information and communication technologies (ICT), the relationship and connections between citizens and public regulators have changed dramatically.

Just consider how technologies have altered how citizens and interest groups locate and access information, communicate and learn from each other, and interact with public powers. And it took less than a century. The first modern computers were used in the 1930s to crack cipher codes of foreign governments. By the 1940s computers were used in the defence establishments of many countries.

In the 1950s and 1960s, public administrations began to use computers to assist in large-scale operations, censuses for instance. But the crucial shift happened in the 1990s, after the global boom of ICT technologies. This is known, in jargon, as the shift from Web 1.0 to Web 2.0 - a term coined in 1999 to describe the new websites: easy to use and interoperable with other systems. Since then the average speed of computation has doubled every eighteen months, with costs of production halving on the same cycle.

The 1990s gave birth to the notion of e-government, used to describe the adoption of ICT technologies as a driver to increase the efficiency and effectiveness of governments. Exactly eighteen years ago, Lawrence Lessig argued futuristically in the pages of the *Harvard Magazine* that 'Code is law', that is to say software, along with laws, social norms and markets, can regulate individual and social behaviour.[8]

Since then, empirical research to measure e-governance has literally exploded. Universities, think tanks and international organisations have created indices to assess different aspects of e-governance. The United Nations Public Administration Network, for instance, publishes an e-government readiness index (E-Government Survey) and an E-Participation Index. The Economist Intelligent Unit curates the E-Readiness Index to measure the use of ICT to strengthen economic and social welfare; the World Economic Forum has created a Networked Readiness Index, while the World Justice Project publishes an Open Government Index.[9]

Thanks to the spread of electronic devices, social interaction costs have lowered radically, and audience numbers have become potentially unlimited. A communication technology such as the internet

[8] See L. LESSIG, 'Code is law: on liberty in cyberspace', *Harvard Magazine*, 1 January 2000.
[9] For a comparison of e-government indices, see P.A. TUANO, E.C. LALLANA, L. GARCIA & A. ALEGRE, *Evolving an Open E-Governance Index for Network Societies*, Institute of Development Studies, 2017.

- explained Manuel Castells in 1996[10] - allows anyone to communicate information from any location simultaneously and has scaled up the social pressure to participate in social networks.[11]

Geoff Mulgan took Castell's argument one step further when he argued that the growing connectedness of the world was among the most important social facts of our times.[12] Constant connectedness, argued Mulgan, would force governments to rethink their policies and organisational forms. He was right. Connectedness has become so important that it is measured. The Connectedness Index, published yearly by the consulting firm McKinsey, measures global flows of data, services and people, ranking countries in terms of how connected they are to other countries.[13]

Fast forward to today. There are over three billion people connected online, and more than five billion - predicted to triple by 2020 - connected machines. According to the WB, there are ninety-eight mobile cellular subscriptions per 100 people in the world - a 50% increase since 2007.[14] The daily average of physical interactions each of us has with mobile phones exceeds 2,600.[15] The amount of digital information has surpassed the amount of analogue information. Knowledge is created and shared at increasingly accelerated speed. One may prove this point by looking at instant messaging apps and social media. WhatsApp in 2017 reached 1.3 billion monthly active users, becoming the world's most popular messaging app alongside Facebook Messenger. In India alone, on 31 December 2017 fourteen billion messages were reportedly exchanged through

[10] See M. CASTELLS, *The Rise of the Network Society*, Blackwell, 1996.
[11] See A. LUPIA & G. SIN, 'Which public goods are endangered? How evolving communication technologies affect the logic of collective action', *Public Choice*, 117, 315-331 (2003).
[12] See G. MULGAN, *Connexity: How to Live in a Connected World*, Harvard Business School Press, 1997.
[13] See MCKINSEY, Global Connectedness Index 2016, available at www.dhl.com.
[14] See WORLD BANK, Mobile Cellular Subscriptions, available at http://data-bank.worldbank.org.
[15] See M. WINNICK, 'Putting a finger on our phone obsession', *Dscout blog*, 16 June 2016, https://blog.dscout.com/mobile-touches.

the app.[16] As of the third quarter of 2017, Facebook had 2.07 billion monthly active users and the microblogging service Twitter averaged 330 million monthly active users. It didn't take long for politicians to understand the potential of these tools. World leaders have 856 Twitter accounts with 357 million followers, and 606 Facebook accounts with 283.2 million followers, according to Burson-Marsteller's 2017 Twiplomacy study. Pope Francis ranks first among leaders on Twitter, the second and third positions being contested by Donald Trump and Narendra Modi, with over 30 million followers.[17]

Highly participatory at its core, our present 'convergence culture' allows anyone with an internet connection to actively participate in matters that, in the past, were reserved to an elite few (such as opinion-makers and politicians).[18] When considering how we interact online, argues Trevor Smith, it becomes clear that 'the Internet is not just a technological object or tool, but a new form of space'.[19] Smith distinguishes three layers to this space: a physical layer, corresponding to the physical infrastructure of the internet; a software layer, composed of the websites and programs that run on the internet; and, finally, a layer that he calls 'wetware'. This is composed of the people that use the internet and determine the entire structure. Stefania Milan adopts a similar perspective when she describes as 'materiality' the online platforms and the devices that people rely upon for interpersonal communication or organising.[20]

[16] See M. SINGH, 'WhatsApp hits 200 million active users in India', *Mashable*, 24 February 2017, http://mashable.com/2017/02/24/whatsapp-india-200-million-active-users.
[17] See http://twiplomacy.com/blog/twiplomacy-study-2017.
[18] See H. JENKINS, *Confronting the Challenges of Participatory Culture: Media Education for the Twenty-First Century*, MIT Press, 2009.
[19] See T.G. SMITH, *Politicizing Digital Space: Theory, the Internet and Renewing Democracy*, University of Westminster Press, 2017, p. 8.
[20] See S. MILAN, 'From social movements to cloud protesting: the evolution of collective identity', *Information, Communication & Society*, 18.8, 887-900 (2015).

6. Increased convergence, higher expectations

Obviously, increased convergence translates into higher expectations. Contemporary audiences are demanding. We have reached the point where government leaders blame citizens' expectations as a key reason for the lack of trust in governments, complaining that the public expect them to solve all their problems. David Schoenbrod outlines five 'tricks' used by politicians to take credit for promising good news, while actually attempting to avoid blame for bad or no results.[21]

But wait! Isn't solving peoples' problems something that politicians are supposed to do? Of course it is. But politics today is not like it was fifty, or even twenty-five, years ago. And the reason for this can be summed up in one word: expectations. To borrow the words of Ethan Zuckerman, the 'participatory civics' disengage from governments and institutions to (re-)engage into individual and collective use of media, markets and codes to advocate for change.[22] Zuckerman observes the shift that has occurred in media production and consumption over the last decade. From a world composed of small professional producers of news, we have shifted to a world where a broader range of the population is directly involved in making and sharing the media. Zuckerman posits that this shift may cause another important change in public participation: a shift in 'civics', that becomes more participatory and inclusive, but also less predictable. In other words, Zuckerman theorises a world in which participation in the public sphere is less about engagement with government institutions and more about individuals using media, markets and codes to seek change.

It is thanks to technologies - argues Gavin Newsom - that citizens are enabled to become problem-solvers in the public domain.[23] These 'autonomous citizens', to use Stephen Coleman's words, not

[21] See D. Schoenbrod, *DC Confidential*, Encounter Books, 2017.
[22] See E. Zuckerman, 'New media, new civics?', *Policy & Internet*, 6.2, 151-168 (2014).
[23] See G. Newsom, *Citizenville*, Penguin, 2013.

only contribute to solving problems, but increasingly call for creative avenues for engaging in policy-making.[24]

Until twenty years ago, before the appearance of the first online platforms, advocacy campaigns were based around postcards, phone calls and multipart mailers. Advocacy was expensive, time-consuming and extremely difficult to measure. Today, technology has multiplied the interactions between citizens-activists and policy-makers a hundredfold. Real-time measurement is possible and costs have reduced dramatically.

In the categorisation of different types of internet politics proposed by Michael Margolis and David Resnick, 'Political uses of the Net' - namely, the activities of citizens and activists to achieve political goals through the use of internet - have surpassed both 'politics that affect the Net' and 'politics within the Net'.[25] Technologies, and the internet in particular, can be portrayed as a platform for both corporate and subversive activity, argue Alexander Galloway and Eugene Thacker. The internet's structure, both highly centralised and dispersed, makes it an ideal platform for a broad range of civic and political activities.[26] Archon Fung, Hollie Russon Gilman and Jennifer Shkabatur concur. They classify six impacts of digital innovations—internet in particular—on civil society. These impacts include the way digital technologies help citizens to engage directly with political elites, and the way they enable interest groups to shape public opinion and mobilise their constituents.[27]

Technological progress has allowed citizens to interact via net-

[24] See S. Coleman, 'Doing IT for themselves: management versus autonomy in youth e-citizenship' in W.L. Bennett (ed.), *Civic Life Online: Learning How Digital Media Can Engage Youth*, MIT Press, 2008.
[25] See M. Margolis & D. Resnick, *Politics as Usual: The Cyberspace Revolution*, Sage, 2000.
[26] See A. Galloway & E. Thacker, *The Exploit: A Theory of Networks*, University of Minnesota Press 2007.
[27] See A. Fung, H. Russon Gilman & J. Shkabatur, 'Six models for the internet + politics', *International Studies Review*, 15, 30-47 (2013).

works, reciprocate favours, build trust, engage in 'connective action',[28] and eventually turn into 'communities of practice' or 'trust communities'. Connection is key to define contemporary citizens—the *cinquième pouvoir* (Fifth Estate), in the words of Thierry Crouzet.[29] As Jean Lave and Etienne Wenger explain, communities of practice identify the common social situation around which people collaborate to develop ideas.[30] Irene Wu elaborates on this further. She explains that, progressively, the information and ideas exchanged through the internet by members of trust communities become key sources of power. Trust communities convey different ideas and information that, in a later stage, are advocated towards established powers.[31] Increased citizen voice against elite power and bureaucratic rationality - add Caroline Lee, Michael McQuarrie and Edward Walker - has started a 'participatory revolution'.[32]

7. Escaping anachronism

Needless to say, public regulators have struggled to adapt to these changes. Fifty years ago, Arthur Stinchcombe coined the term 'social technology' to describe the evolutionary path followed by regulatory institutions.[33] Yet, responding quickly to the demands of citizens and communities, and engaging them in the exercise of public power, remains a complex task for public regulators.

When not openly hostile to innovations, public regulators are

[28] On the concept of 'connective action', See L.W. Bennett & A. Segerberg, *The Logic of Connective Action Digital Media and the Personalization of Contentious Politics*, Cambridge University Press, 2013.
[29] See T. Crouzet, *Le cinquieme pouvoir : Comment internet bouleverse la politique*, Bourin, 2007.
30 See J. Lave & E. Wenger, *Situated Learning: Legitimate Peripheral Participation*, Cambridge University Press, 1991.
[31] See I. Wu, *Forging Trust Communities. How Technology Changes Politics*, Johns Hopkins University Press, 2015.
[32] See C. Lee, M. McQuarrie & E. Walker, *Democratizing Inequalities: Dilemmas of the New Public Participation*, NYU Press, 2015.
[33] See A.L. Stinchcombe, 'Social structure and organization' in J.G. March (ed.), *Handbook of Organizations*, Routledge, 1965.