

What is the Future?

John Urry



'It is time for progressive forces to reclaim the future. Through the crucial lens of social science, this means understanding both the past and how to better work together to craft the futures we want. This brilliant book cuts through a tangle of complexity to show us how.'

Stewart Wallis, New Economics Foundation

'John Urry, one of the leading sociologists of the past half-century, made a major contribution to the analysis of climate change and related issues, and this new book combines a comprehensive overview of the futures literature with a more detailed focus on some central themes. This learned yet very accessible book is in the best traditions of critical future studies. Anyone interested in the big questions facing our societies should read it.'

William Outhwaite, Newcastle University

Thinking about the future is essential for almost all organizations and societies. States, corporations, universities, cities, NGOs and individuals believe they cannot miss the future. But what exactly is the future? It remains a mystery – perhaps the greatest mystery, especially because futures are unpredictable and often unknowable, the outcome of many factors, known and unknown. The future is rarely a simple extrapolation from the present.

In this important book, John Urry seeks to capture the many efforts that have been made to anticipate, visualize and elaborate the future. This includes examining the methods used to model the future, from those of the RAND Corporation to imagined future worlds in philosophy, literature, art, film, TV and computer games. He shows that futures are often contested and saturated with different interests, especially in relation to future generations. He also shows how analyses of social institutions, practices and lives should be central to examining potential futures, and issues such as who owns the future.

The future seems to be characterized by 'wicked problems'. There are multiple 'causes' and 'solutions', long-term lock-ins and complex interdependencies, and different social groups have radically different frames for understanding what is at stake. Urry explores these issues through case-studies of 3D printing and the future of manufacturing, mobilities in the city, and the futures of energy and climate change.

JOHN URRY (1946-2016) was Distinguished Professor of Sociology at Lancaster University.

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Another Place
1997

Installation view, Stavanger, Norway, 1998
100 cast iron figures,

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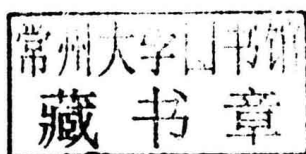
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Preface

I am very grateful to many colleagues who have stimulated my interest and thinking about social futures. I gained great insight from the work of the much-missed Ulrich Beck.

My thinking here was co-developed with Thomas Birtchnell and this is reflected in various joint articles and books, including the research reported below in Chapter 7. See our forthcoming book *A New Industrial Future? 3D Printing and the Reconfiguring of Production, Distribution and Consumption* (Routledge). I am also very grateful to other friends and colleagues who contributed in general or specifically commented on the manuscript, including Barbara Adam, Ian Aspin, Alan Beattie, Mike Berners-Lee, Paula Bialski, David Bissell, Rebecca Braun, Monika Büscher, Javier Caletrio, Rachel Cooper, Andrew Curry, Joe Deville, Pennie Drinkall, Nick Dunn, Anthony Elliott, Carlos Galviz, James Hale, Michael Hulme, Bob Jessop, Glenn Lyons, Astrid Nordin, Lynne Pearce, Serena Pollastri, Cosmin Popan, Katerina Psarikidou, Satya Savitzky, Andrew Sayer, Mimi Sheller, Elizabeth Shove, Richard Slaughter, Ken Smith, Nicola Spurling, Bron Szerszynski, Richard Tutton, David Tyfield, Amy Urry, Tom Urry, Sylvia Walby, Becky Willis and Linda Woodhead.

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Institute for Social Futures, Lancaster University

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1

Introduction: The Future Has Arrived

Welcome to the future

In 1994, the magazine *New Scientist* devoted a special issue to the subject of *Futures*, observing how the future is a foreign country since they do things differently there (*New Scientist* 1947, 5 October 1994). The Editorial argued that the increasingly complex nature of the world made it even more important to know the future so as to understand the present better. Somewhat similarly, John F. Kennedy said, quite close to his assassination in 1963, that: ‘Change is the law of life. And those who look only to the past or present are certain to miss the future’ (Kennedy Address 1963).

The future has most definitely arrived but what exactly it is remains a mystery, perhaps the greatest of mysteries. Futures are now everywhere. Thinking and anticipating the future are essential for almost all organizations and societies. Futures are on most contemporary agendas – many hold the future to be a better guide to what to do in the present than what happened in the past. States, corporations, universities, cities, NGOs and individuals believe they cannot miss the future; that foreign country is now everywhere.

Yet at the same time futures are unpredictable, uncertain and often unknowable, the outcome of many known and especially ‘unknown unknowns’. Garrett Hardin once maintained ‘We can

never do merely one thing': the one thing that would produce a single clear set of future outcomes (1972: 38). We do, in effect, many 'things', even when we think we are doing just one, and these many things have varied and unpredictable consequences for the future.

Thus, the first reason for writing a book on futures is to demonstrate the many efforts made, in the past and now, to anticipate, visualize and elaborate the future(s) within various domains of human activity. Powerful social institutions and thinkers are developing various kinds of anticipatory discourses and techniques (see Szerszynski 2016, on anticipation). This futures orientation is big and significant business for companies like Google or Shell, environmental organizations such as the Intergovernmental Panel on Climate Change (IPCC) or Forum for the Future, government bodies like Foresight in the UK or the European Strategy and Policy Analysis System (ESPAS) in the EU, military organizations such as the Pentagon, academic bodies such as the Oxford Martin School or the Tyndall Centre, and very many others. Some of those futures anticipated by these organizations have performative consequences, certain of which will be documented and examined below.

Specific methods have been developed for envisaging, visualizing and assessing potential futures. Some of these originated from scenario planning exercises that Hermann Kahn initiated at the Rand Corporation during the 1950s (Son 2015: 124). He especially promoted the development of alternative scenarios, noting how they enabled the imagining of different future possibilities. Also, many imagined future worlds have been developed within literature, art, film, TV, computer games and so on. These often involved spectacular future technologies such as time-travel, personal flying machines, roads and trains in the sky, teleportation, robots, walking upon water, off-earth communities, vacuum powered propulsion, driverless trains, equal utopias, as well as many dark dystopic futures (see the amusing www.bbc.co.uk/news/magazine-20913249). This book will document and assess some of these ways in which organizations, intellectuals, scientists, artists, policy makers and technologists have developed, or are developing, futures.

The future also seems to be appearing ever more quickly, something first analysed in depth in Toffler's *Future Shock* (1970). He

described exponential rates of technological and social transformation. In recent decades, ‘Moore’s Law’ meant that world computing power (the number of transistors in an integrated circuit) doubled every two years. Today’s smartphones possess the computing power once found in large mainframe computers, as well as possessing ‘magical’ affordances housed within a ‘ready-to-hand’ small machine which no one knew they ‘needed’ only twenty years ago. Some indeed argue that the future has almost disappeared, being transformed into an ‘extended present’ with no long-term futures (Nowotny 1994). And many people feel that they themselves have no ‘future’, since opportunities, hopes and dreams seem endlessly dashed, especially during times of ‘austerity’.

A sense of a disappearing future is also found within new financial ‘products’ that are based upon computerized high-frequency trading occurring in millionths of a second (Gore 2013). Actions happening beyond the speed of thought involve movements of money and information that cannot be grasped by human minds, even by the ‘flash boys’ working in finance (Lewis 2015). In such an accelerating world, financial futures arrive before they have been understood by the relevant actors. This is a kind of nano-second ‘future shock’ in which efforts to slow down decision-making even to transactions taking a whole second are rejected by financial institutions (Gore 2013: 16–17).

Moreover, futures are incredibly contested, saturated with conflicting social interests. Over two centuries ago, Edmund Burke argued that a society should be seen as a: ‘partnership not only between those who are living, but between those who are living, those who are dead, and those who are to be born’ (Burke [1790] quoted in Beinhooker 2006: 454). Burke points to the interests of unborn members of a society and how they need a powerful ‘voice’ to counter societies and lives being based only upon the interests of the living.

The environmental movement has played a major role in developing this idea of an inter-generational global commons, as set out in the Brundtland Commission’s iconic Report on *Our Common Future* (1987). Environmentalism deploys generational rhetoric to argue for the interests of children, grandchildren and those not yet born (see Hansen 2011; www.gaiafoundation.org/earth-law-network/alliance-future-generations). Interestingly Hungary

initiated the position of the Parliamentary Commissioner for Future Generations (www.ajbh.hu/en/web/ajbh-en/dr.-marcel-szabo), while a Future Generations Commissioner for Wales was established by 2015 legislation to act as an advocate for future generations.

However, most societal processes mould futures to the interests of current generations. Those yet to be born generally possess no voice in what we can call the ‘parliament of generations’. Or, as Adam expresses it, future generations cannot charge the current generation for the use made of their present. Future generations have no voice or vote to register their interests and must accept most of what is handed down to them (Adam 2010: 369).

There are though moments when this power of the present generation is contested and efforts are made by governments and NGOs to form ‘imagined communities’ that do stretch across generations and seek a ‘common future’. Such moments of generational solidarity can transform social and political debate, laying down new institutions and structures of feeling. One moment when this happened in some societies was during 1970. On 22 April 1970, 20 million Americans demonstrated for a healthy, sustainable environment. This first Earth Day led to the creation of the United States Environmental Protection Agency, the passing of various environmental Acts, the founding of Greenpeace and the publication of many iconic texts. At such moments, the long-term or glacial future functioned as a powerful structure of feeling (see Lash, Urry 1994). The future became democratized. But these moments are unusual. Overall, the arguments in this book are oriented to democratizing futures.

Rejecting the future

However, even though there are many social conflicts over futures, social science was reluctant to enter this futures world and has made a limited contribution to its theorization and analysis (but see Bell, Wau 1971; Young 1968). This reluctance partly resulted from how Marx, the most significant nineteenth-century social scientist, was apparently mistaken in ‘predicting’ that capitalism would engender worldwide revolution led by the industrial

working class. Marx argued: 'The philosophers have only interpreted the world, in various ways; the point is to change it' (Marx 1962[1845]: 405). He expected that steam-powered factories, large industrial cities, railways and worker immiseration would lead the industrial proletariat to develop into a 'class-for-itself' and thus revolutionize the capitalist world. The proletarian class and its transformative power would overthrow capitalism and realize 'communism' through the effects of global capitalist expansion.

But in fact worldwide social revolution did not start in societies with the most advanced capitalist political economies, such as Britain or Germany. It commenced in Tsarist Russia in 1917, it did not initially involve a large organized industrial working class and the Bolshevik revolution resulted not in communism or even socialism in one country but, according to many critics such as Karl Popper, a new barbarism.

However, Marx's earlier 1840s writings instead emphasized how capitalist societies in fact involved much uncertainty and unpredictability. In *The Manifesto of the Communist Party*, written when he was just thirty, Marx (and Engels) described a modern world of transience and movement, arguing that all fixed, fast-frozen relationships were swept away in capitalist modernity: all that is solid melts into air (Berman 1983; Marx, Engels 1952[1848]). This vision of an uncertain capitalist modernity meant that, in terms of analysis from the 1840s it was impossible to develop a specified blueprint of the future, and indeed Marx and Engels generally argued against utopian future visions.

Nevertheless this apparent 'failure' of Marxist analysis to get the future right was used by many social analysts to reject the proposal that social science should make predictions or establish planned blueprints for the future. Utopian imagining and the fostering of alternative worlds were heavily critiqued especially during the Cold War period in western societies (Popper 1960; Kumar 1991). Social science turned its back on developing and analysing possible futures (but see Bell, Wau 1971). A few social scientists, such as Lefebvre, Bauman and Olin Wright, argued that utopias can hold a powerful mirror to existing societies as they demonstrate limitations of the present (Bauman 1976; Levitas 1990; Pinder 2015). This positing of a utopia has often been

emancipatory, enabling people to break with the dominance of what seem to be unchanging forms of social life within the present. But, in general, utopian social science has been rare.

In fact, studies of alternative futures which emerged over the past seventy or so years were mainly developed outside 'social science' as such (see Son's periodization, 2015). Future studies was developed as a specialized and increasingly professionalized discipline, generating its own journals, key books, iconic figures, global bodies (<http://foresightinternational.com.au>), professional organizations (such as the Association of Professional Futurists) and founding texts (see www.wfsf.org/; Son 2015: 122). Futurist thinking immediately after 1945 often reflected Cold War debates and issues, with Kahn said to be the model for Dr Strangelove in the 1964 movie (see www.newyorker.com/magazine/2005/06/27/fat-man). Much of this futurist thinking was tied to powerful military and corporate agendas in which computers in particular were viewed as instruments of the Cold War (Turner 2006: 1). This futures thinking was normally funded from outside the academy and subsequently mainly developed within private thinktanks such as those established by Alvin Toffler (1970), and later Jeremy Rifkin (2009), Al Gore (2013) and many others. By the late 1970s, there were an astonishing 178 futures-related journals (Son 2015: 125).

Futures work also developed partly because of the growing significance of the environmental movement and related sciences in the decades after 1970 (see Schumacher's prescient *Small is Beautiful*, 1973). The *Limits to Growth* debates as well as the 1973 oil crisis involved developing computer-models, some involving doomsday scenarios, others techno-optimistic futures (Meadows, Meadows, Randers, Behrens 1972; Son 2015: 126). Such increasing concern with the issue of climate change led to General Circulation Models. By the early 1990s, these computerized models simulated the consequences of increases in CO₂ upon mean global climate at various points in the future. These predictions were incorporated into the major reports of the increasingly influential Intergovernmental Panel on Climate Change (IPCC) that appeared every few years after the first was published in 1990. These reports warned that, if societies continued with the practices and policies of 'business as usual', then the likely global future was a continued and significant warming of the earth's climate

and hence the very opposite of maintaining business as usual (see Chapter 9 below).

Social sciences and the future

This book argues that different social futures are fateful for people's lives in the present. It also argues that the terrain of future studies should be reclaimed for social science and, in a way, for people in their day-to-day lives. There is much theory and research in social science that is pertinent to anticipating futures, but this linking has not often been achieved. This book seeks to 'mainstream' the future, which is too important to be left to states, corporations or technologists. Future visions have powerful consequences and social science needs to be central in disentangling, debating and delivering those futures. Hence we should develop what will be termed here 'social futures' – this notion having some similarity with the idea of an 'integral future' (Bell, Wau 1971; Slaughter 2012). The book shows how analyses of 'social institutions, practices and lives' should be core to theories and methods of potential futures. The time of the future is now, and the social sciences and the social world should not miss it.

This is firstly because social science is significant in helping to deconstruct a single notion of 'time'. Adam and colleagues show that there are varied forms of time as different societies and social institutions are built around contrasting time regimes (Abbott 2001; Adam 1990, 1995). Temporal regimes of calculation and disciplining, such as those within a monastery or contemporary finance, matter greatly to people's lives within different societies (see Canales 2009, on the historical significance of being able to measure a tenth of a second). Adam shows the importance of the historic shift from time as lived and experienced to time that is standardized and de-contextualized (Adam 2010).

Relatedly, social science elaborates how multiple futures are related to these different time regimes. According to Adam and Groves, futures are told, tamed, traded, transformed, traversed, thought, tended and transcended (2007). Especially significant is trading in futures, which involves a major break in the trajectory taken by societies. In many religions, it was considered a sin to charge interest on money lent into the future since the future

belonged to God and not the people (Adam, Groves 2007: 9). However, within European societies, God's gift was transformed into a future made, intervened in and traded. Thus there was 'a change in the ownership of the future from gods to people', with many profound consequences for social life (Adam 2010: 365).

The future has often been viewed as empty and abstracted from context; as a result an 'empty future is there for the taking, open to commodification, colonization and control... When the future is decontextualized and depersonalized we can use and abuse it without feeling guilt or remorse' (Adam, Groves 2007: 13). The future has indeed been used and abused – seeing the future as empty makes it ready for exploitation since those in the future cannot get their own back for the future world that they will inherit.

Social science also examines the dangers of extrapolating the future from what is the present. Knowing the future necessitates examining various 'pasts' and developing ways of understanding how past, present and future are mutually intertwined. It is sometimes maintained that we can distinguish between planning, preparation, invention and co-producing the future, especially through what Riel Miller terms a 'futures literacy' (2011). He argues that developing this literacy as to potential futures enables the present to be better understood. The point he says is not to test present assumptions against some predictive future, but to use the future to question, unpack, invent what is going on and what can be done within the present. More generally, here people's anticipation of the future can have profound consequences for the present. In this book, we see many examples of the anticipatory character of contemporary society and its many consequences for the present (Szerszynski 2016).

Variations in time and possible anticipated futures also stem from how social systems can be characterized by discontinuity, change and unpredictability. Prigogine argues from the perspective of complexity science that futures are the effect of multiple unstable, complex adaptive systems and their often cascading interdependencies (1997). This 'end of certainty' has implications for future social worlds, as described in detail by Al Gore (2013).

Social studies of technology show that future economic and social innovations are rarely the outcome of linear processes but involve unpredictable combinations of elements, as elaborated by