



Future Identities

Changing identities in the UK: the next 10 years



Future Identities

Changing identities in the UK: the next 10 years

Foreword

This Report provides an important opportunity for the Government to consider how identities in the UK are changing and the possible implications for policy making over the next 10 years. For the first time, it brings together many areas of research into a single coherent narrative to analyse how drivers of change may affect identities in the UK in the future.

The findings are based on the most recent evidence from a wide range of authoritative sources. Over 100 academics and stakeholders have contributed to the development of this Report and the analysis is supported by 20 published evidence papers. I am particularly grateful to the lead expert group, chaired by Professor Chris Hankin, which has overseen the work.



Foresight has undertaken this research in response to growing evidence that the UK has undergone significant changes which affect how people see themselves and others. The economic downturn, the effects of globalisation, and increasing international migration have all been influential, while the impact of social media and modern communications technology have created a new 'digital' UK. In particular, the Report discusses an emerging trend towards 'hyper-connectivity', where mobile technology and the ubiquity of the internet enable people to be constantly connected across many different platforms. Hyper-connectivity is already removing any meaningful distinction between online and offline identities, while also blurring 'public' and 'private' identities. The trend could also act to increase the pace of change, leading to more dynamic and changeable identities and behaviours.

This Report shows that 'identity' is not a simple notion. People can have many different overlapping identities which are fundamental to their individuality. Identities can exercise a powerful influence on the health and wellbeing of communities, and the degree to which they can build up social capital. There are important implications for a range of policy issues, such as the collection and use of data by government and the private sector, how individual rights and liberties can be balanced against privacy and security, and how inclusive identities can best be promoted.

I am pleased to publish this Report, which I hope will contribute to the debate surrounding the complex field of identity, as well as providing practical advice to inform decision making in government.

Professor Sir John Beddington CMG, FRS

Chief Scientific Adviser to HM Government and Head of the Government Office for Science

Contents

Exe	ecutive Summary	1
ı.	Introduction	6
1.1	Aim	6
1.2	Who is the Report for?	6
1.3	How the Report is organised	7
2.	What is identity and why does it matter?	9
2.1	Definition of an individual's identity	9
2.2	Why do identities matter to policy makers?	П
3.	Drivers of change	14
3.1	Social drivers	14
	3.1.1 An ageing population	14
	3.1.2 Young people	18
	3.1.3 Religion and secularisation	19
	3.1.4 Diversity	20
	3.1.5 Hyper-connectivity	22
3.2	Technological drivers	25
	3.2.1 Online identities	25
	3.2.2 Social media	27
	3.2.3 'Big data'	28
	3.2.4 Cybercrime	30
2 2	3.2.5 Biomedical technologies	32
3.3	Economic drivers	33
	3.3.1 Consumerism	33
3.4	3.3.2 Economic downturn Environmental drivers	34 37
J. 1	3.4.1 Place attachment	37
	3.4.2 The built environment	37
	3.4.3 Environmental change and risk	38
3.5	Political drivers	41
5.5	3.5.1 Trust	41
	3.5.2 'Britishness'	43
4.	Challenges and opportunities	48
4.1	Key themes of changing identities	48
	4.1.1 Increasing hyper-connectivity	49
	4.1.2 Increasing social plurality	50
	4.1.3 Blurring of public and private identities	51
4.2	Implications for specific areas of policy	52
	4.2.1 Social mobility	52
	4.2.2 Social integration	53
	4.2.3 Radicalisation and extremism	54
	4.2.4 Health, environment and wellbeing	55
	4.2.5 Skills, employment and education	56
	4.2.6 Crime and criminal justice	57
4.3	Conclusion	59
	knowledgements	60
Bib	liography	64

Executive Summary

Identity in the UK is changing. Over the next 10 years, people's identities are likely to be significantly affected by several important drivers of change, in particular the rapid pace of developments in technology. The emergence of hyper-connectivity (where people can now be constantly connected online), the spread of social media, and the increase in online personal information, are key factors which will interact to influence identities. These developments need to be set within a wider context of demographic change: the shift of the large post-war generation into retirement, and the coming into adulthood of young people who have been immersed since birth in a digital environment. The increasing diversity of the UK's population means that dual ethnic and national identities will continue to become more common, while the gradual trend towards a more secular society appears likely to continue over the next decade. A key message for policy makers is that identities can be a positive resource for social change, building social capital, and promoting wellbeing, but they can also have a role in social unrest and antisocial behaviour.

This Report was commissioned to provide policy makers with a better understanding of identities in the UK. It considers the most recent evidence on how identities in the UK might change over the next 10 years. It identifies key challenges for effective policy making and implementation in a rapidly changing, globalised, technology-rich, and densely networked UK. Specifically, the Report focuses on implications for: crime prevention and criminal justice; health, the environment and wellbeing; skills, employment and education; preventing radicalisation and extremism; social mobility; and social integration. The findings link into the Government's wider interests in openness and transparency in policy making.

Key findings

Rather than having a single identity, people have several overlapping identities, which shift in emphasis in different life stages and environments. These are changing in three important ways:

Hyper-connectivity:

Hyper-connectivity is driving social change and expectations, while bringing people together in new ways. By 2011 there were more than seven billion devices connected to the internet, and numbers are predicted to reach 15 billion by 2015. Sixty per cent of internet users in the UK are now members of a social network site, increasing from only 17% in 2007. By offering virtually unlimited storage capacity, the internet allows people to document any aspect of their lives, creating a wealth of personal data which can be 'mined' for insights, by private sector companies and potentially by government. This means that people's online identities have value in a way that is new.

The UK is now a virtual environment as well as a real place, and increasingly UK citizens are globally networked individuals. Events which occur elsewhere in the world can have a real and immediate impact in the UK. For example, hyper-connectivity can have a positive impact on migrant communities in maintaining social connections with family and friends. People have become accustomed to switching seamlessly between the internet and the physical world, and use social media to conduct their lives in a way which dissolves the divide between online and offline identities. The internet enables people to connect with others like themselves and discuss ideas as well as promulgate misinformation, which can quickly become widely disseminated. Hyper-connectivity not only has the potential to increase the pace of social change, but may also make it more volatile. As such, the internet has not produced a new kind of identity. Rather, it has been instrumental in raising awareness that identities are more multiple, culturally contingent and contextual than had previously been understood.

Executive Summary 1

Increasing social plurality:

Society may become more pluralised, and less integrated, as people's identities are influenced by the ageing population, greater diversity and changing patterns of immigration, and the emergence of online 'virtual' communities.

Demographic change in the UK is leading to shifting intergenerational dynamics. As the large post-war cohort reach old-age, the number of over-75 year olds will increase by over a million, from 5.1 million in 2012 to 6.6 million in 2022, a rise of more than 20%. The Report identifies a shift in attitudes, with the emergence of new transitional life stages being defined by attitudes and roles, rather than age. Traditional life stages, for example between adolescence and adulthood, or middle-age and old-age, are being delayed or blurred together. Shifting intergenerational dynamics will also see a relatively smaller working population. Younger people are likely to find achieving the experiences of adulthood more challenging than previous generations. In 2011, nearly three million adults aged between 20 and 34 were still living in their parents' home, an increase of almost 20% since 1997. People's identities are likely to be under greater pressure in their family and caring roles, as the number of people providing care to older parents is projected to increase from nearly 400,000 in 2005 to about 500,000 in 2041, with most of this increase occurring by 2022. However, these social changes could also encourage the growth of virtual support networks and communities.

The 2011 Census for England and Wales showed that in 2011, 13% of people resident in England and Wales were born outside the UK. The share of the population from minority ethnic groups is projected to continue to rise over the next decade, and to become more geographically dispersed. This could have implications for ethnic and national identities, as there is evidence from surveys that younger people in particular have a more tolerant attitude towards immigrants.

Other identities, such as religious identity, seem unlikely to change significantly over the next 10 years. The gradual long-term trend towards secularisation is set to continue. The 2011 Census shows that the number of people identifying themselves as having 'no religion' rose from 15% of the population in 2001 to 25% in 2011, while the number of people identifying themselves as Christian dropped from 72% in 2001 to 59% in 2011. However, this trend is less pronounced in Northern Ireland, and among the Muslim and the Roman Catholic populations in the rest of the UK. For national identities, growing numbers of people now think of themselves as Scottish, Welsh, or English, rather than British.

Blurring of public and private identities:

People are now more willing to place personal information into public domains, such as on the internet, and attitudes towards privacy are changing, especially among younger people. These changes are blurring the boundaries between social and work identities. The advent of widespread mobile technology and email enables more people to remain connected to their work out of hours. At the same time, posting mobile phone photographs and videos online has led to a cultural shift where many people broadcast their daily lives and experiences, ceding control over some aspects of identity to others with potentially serious consequences for later life. For example, a potential employer might find information online which could make a potential candidate unsuitable. This breakdown in the barrier between public and private identities could be an important and transformative consequence of social and technological change. The widespread use of mobile technology could, in time, allow social media to be linked with spatial tracking and even facial recognition technologies. This would allow people to draw on personal information about a stranger in a public place, changing the nature of what it means to be anonymous in public spaces.

What does identity mean today?

Identities are controlled both by individuals and by others:

An individual's 'identity' is the sum of those characteristics which determine who a person is. This includes a person's perception of themselves as similar to, or different from, other people. People can choose to present certain aspects of their identities, or to disclose particular personal information. Identities can also be imposed by others. As many people now have some online presence, their 'virtual biographies' can be modified or even created by other people and, for example, by companies. Even if a person does not create their own online accounts, their families and friends may discuss them or post photographs online.

· People have many overlapping identities:

This Report considers several aspects of identities including ethnic, religious, national, age, family, financial, and online identities. A person can have all these identities simultaneously, although one identity might be more important under particular circumstances. At home a person may find their identity as a parent most important, while at work they might identify as a company employee. Online, they may pursue a hobby as part of an interest group. Understanding which of a person's identities are most relevant in a given situation depends on the context. Identities are, therefore, culturally contingent and highly contextual, but can also be strongly linked to behaviours, both positive (for example volunteering in a community) and negative (such as antisocial behaviour).

· People express their identities in different ways:

Whether a person is included or excluded from a group is important in forming their identity. People's identities are partly created by group membership, but also they may choose to adopt an identity which is different from the way in which others stereotype them. A person's identity is central to their values and fundamentally affects health and wellbeing, so freedom of self-expression is important. One of the most significant observations of the impact of online identities is the way that some people can feel that they have achieved their 'true' identity for first time online. For example, some people may socialise more successfully and express themselves more freely online. This is one of the ways in which online identities can transform offline identities.

· Identities have value:

People's identities have personal, psychological, social, and commercial value. The growth in the collection and use of personal data can have benefits for individuals, organisations and government, by offering greater insights through data analysis, and the development of more targeted and more effective services. Identities can unify people and can be regarded as a valuable resource for promoting positive social interaction. However, this growth in the amount of available data also has the potential for criminal exploitation or misuse. Trust is fundamental to achieving positive relationships between people and commercial organisations, and between citizens and the state, but surveys show that people are less willing to trust in authority than in the past. The British Social Attitudes Survey asked people 'How much do you trust British governments of any party to place the needs of the nation above the interests of their own political party?'. The results showed that the percentage of people who responded 'Almost never' increased from 11.8% in 1986 to 33.5% in 2011. Maintaining a balance between privacy, freedom and protection, and regaining trust will remain a key challenge for government in making best use of 'big data'.

Executive Summary 3

About the Report

This Report is the result of a one-year 'Policy Futures' project undertaken by Foresight, in the Government Office for Science. The aim of the Project was to come to a broad and independent scientific view of changing identities in the UK through a synthesis of existing evidence from a range of academic disciplines, including computer science, criminology, the social sciences and the humanities. The Report is based on 20 evidence reviews, commissioned from leading UK and international experts, which explore key aspects of how identities in the UK are currently understood, and how they might change over the next 10 years. These are published alongside this Report. As identity is such a wide-ranging subject, the Report focuses on those trends and issues affecting identities that are of most interest to UK policy makers.

Implications for policy makers in six key areas:

Crime prevention and criminal justice:

There is a distinction to be made between a traditional type of crime which is now committed using a computer, and a crime wholly enabled by the internet. The growing quantity of personal and financial data online, as facial recognition technology, 'big data' and social media together begin to connect information about individuals, means that there will be more opportunities for criminal exploitation and cybercrime. Creating a false identity or stealing another person's identity is often achieved through obtaining key personal information, so the distinction between a person's 'identity' (in terms of their overall sense of self) and the identification used to distinguish between people online is being increasingly blurred in practice. Ultimately, stealing sufficient information could enable a criminal to effectively take over victims' online identities. However, there are also opportunities for enhanced crime prevention, intelligence gathering, and crime detection. 'Open source' intelligence will become more important for detecting patterns of criminal behaviour, but the quantity of data available will make locating and analysing relevant data more problematic, and will require the right skills and resources. The foundation of English law is a liberal society where social identity is, as far as possible, a personally defined and freely chosen individual possession, and so the legal system will need to continue to ensure that people's online and offline identities are protected.

· Health, environment and wellbeing:

The environment is very important in forming and understanding identities. For example, many places can be restorative, and so policies which promote green spaces and protect the countryside can be important for health and wellbeing. The implications of changing identities for the built environment, transport, infrastructure, and mitigating the effects of climate change will need to be considered by policy makers. The development and application of biomedical technologies, such as drugs to improve memory and cognition, and developments in reproductive technologies, could have the potential to transform the way that people relate to themselves, each other, and their environment. However, there are complex ethical and practical implications for government in regulating and responding to these technologies.

Skills, employment and education:

Digital literacy is essential in enabling people to make full use of computer technology and the internet to express their identities, and to connect with social media, services, and information. A critical issue for the future will be to ensure that individuals have the knowledge, understanding, and technological literacy to enable them to take control of their own online identities, and to be aware of their online presence and how it could be used by others.

Radicalisation and extremism:

The trends towards greater social plurality, declining trust in authority, and increasing take-up of new technologies may all pose challenges for policy makers seeking to manage radicalisation and extremism. Trends in changing identities in the UK over the next 10 years will be crucial to understanding these issues.

Social mobility:

The findings of the Report indicate that understanding and improving social mobility will become even more complex in the future. Some of the trends suggest that there will be more divergence between groups. Perceptions of unfairness in access to opportunities, rather than actual inequality, may in turn reinforce certain kinds of social identities and increase the potential for collective action. However, as access to the internet and hyper-connectivity increase, information and education may become more freely available and shared, enhancing life opportunities for many individuals.

Social integration:

Greater social plurality, demographic trends, and the gradual reduction in importance of some traditional aspects of identity, suggest that communities in the UK are likely to become less cohesive over the next 10 years. However, hyper-connectivity can also create or strengthen new group identities. Policy makers will need to consider indirect as well as direct implications of policy for communities and people's sense of belonging. It is important to recognise that policies can interact with identities in complex and unpredictable ways. Awareness of this should be built into plans for monitoring policy implementation and responding to outcomes. There are also opportunities for policy to support social integration and acknowledge new forms of community as they develop.

Conclusion

Over the next decade, identities in the UK are likely to undergo important changes, and will be increasingly dynamic or volatile. Simple categorisations based on traditional notions of identities are likely to become less meaningful. This will affect society and influence the way that people live their lives. In future, the UK needs to be considered as much a part of the virtual world as a real place. Increasingly, its citizens will be globally networked, hyper-connected individuals, and this has substantial implications for what is meant by communities and by social integration.

The increasing speed and connectivity of information technology systems offers opportunities for monitoring what is happening in real time, and assessing the effectiveness of specific policies. For policy makers, understanding the changing nature of identity in the UK will be increasingly important for effective policy making and implementation. Failure to do so may lead to missed opportunities to, for example, strengthen social integration, reduce exclusion, enhance open policy making, and make effective use of identities as a resource. Government would also benefit from drawing upon a deeper scientific understanding of people's evolving identities when developing, implementing and testing policies, for example in initiatives such as 'Test, Learn, Adapt'. Policy making across many different areas will need to be more iterative, adaptive, nuanced and agile, taking into consideration the multifaceted nature of people's identities and how policies might affect different groups, or individuals, at different times and places.

1. Introduction

This Foresight Report provides an evidence base for decision makers in government to understand better how people's identities in the UK might change over the next 10 years. The impact of new technologies and increasing uptake of online social media, the effects of globalisation, environmental disruption, the consequences of the economic downturn, and growing social and cultural diversity are all important drivers of change for identities. However, there is a gap in understanding how identities might change in the future, and how policy makers might respond to such change.

1.1 Aim

The aim of this Foresight Report is to consider how changes over the next 10 years will affect identities in the UK. The Report takes a broad and independent view of the current evidence for the drivers of change affecting identity in the UK over the next decade, bringing together for the first time current evidence and pointing out some of the main implications for policy makers. To ensure the Report is robust and relevant, the research was overseen by a group of senior academic experts who formed the Lead Expert Group, and reviewed by a group of policy officials from across relevant Government departments. The Report is based on a set of 20 driver reviews which were commissioned to explore different aspects of changing identities.

This Report takes as its starting point the current findings of research in social sciences, which understand identity not as a singular, fixed or innate state of being, but conceptualises individuals as having multiple, dynamic, overlapping identities. These can be broadly grouped as 'social' identities, 'biographical' identities, and 'biometric' identities. Social identities refer to where individuals define themselves in relation to others, either as part of a group or in contrast to others. Biographical identities concern attributes such as names, age, and gender. There are also unique characteristics such as DNA and fingerprints which form biometric identities, which were beyond the scope of the project. This Report is mainly focused on how a person's social and biographical identities might change over the next 10 years, how behaviour might alter as a result, and what the implications for policy makers are likely to be.

1.2 Who is the Report for?

Identities are a very broad topic and of interest to many different parts of government as well as other organisations. This Report is aimed at UK Government decision makers, and has diverse implications for many policy areas. Because identities encompass such a broad area, only those aspects of most relevance for policy makers have been considered.

People's identities are an important subject which has been addressed in a wide range of academic research, but there has been limited analysis of how identities might change in the future. The current evidence suggests that several key drivers of change are already affecting identities and will continue to do so in the future. Identities are also a factor in driving change itself, because identities affect behaviour. For example, people may choose to live in a particular area or buy a particular product because it fits with their perception of themselves and

i The driver reviews are listed in the bibliography and are freely available to download at http://www.bis.gov.uk/foresight

their identities. Identities can create feedback loops which can reinforce or disrupt a trend. They are therefore fundamental to how people understand themselves and their place in the world, how they relate to others, and how they behave in consequence. This makes them important for policy makers in developing and delivering policy.

This Report aims to help policy makers gain a better understanding of the complex relationships between policies, individuals, and their identities, which interact in sometimes unexpected ways. There are several insights that can be drawn out for policy makers in particular policy areas. There are also broader implications about the nature of policy making, and the need for a sensitive and nuanced approach which takes into account identities, and benefit from an understanding of how policy might affect different groups, and how they in turn might respond.

1.3 How the Report is organised

Chapter I introduces the Report. The chapter explains the rationale for undertaking this project, the aim, and the intended audience.

Chapter 2 defines the concept of identity used in this Report. 'Identity' has been widely discussed in many academic disciplines and defined in a number of different ways: this section briefly explains the background to academic research into identity and makes clear how 'identities' are understood and used in this Report. Chapter 2 goes on to explain why it is important for policy makers to consider identities.

Chapter 3 forms the main body of the Report. It brings together the current evidence relating to how identities are formed and changed, and analyses the main drivers of change which might affect identities over the next 10 years. It is divided into five thematic sections: social, technological, economic, environmental, and political categories.

- Social drivers of change which are considered relevant to identities include demographic changes, such as an ageing population, shifting intergenerational roles and responsibilities, and young people who have been brought up in a digital environment. The section goes on to discuss patterns of religion in the UK and the gradual trend towards increasing secularisation, increasing cultural and ethnic diversity, and the emergence of 'hyper-connectivity' as a social phenomenon, where the spread of mobile computing technology has enabled people to be always connected to the internet.
- Technological drivers include the development of online identities as the internet matures, the expansion of social media into the daily lives and relationships of many people, and the potential for 'big data' as more personal information is held online and can be mined for insights by private sector organisations and governments. The potential for issues over the ownership of personal information, and for cybercrime such as identity theft, is discussed. The section goes on to discuss biomedical technologies and their implications for identities.
- **Economic** drivers for identity changes are discussed with reference to the impact on identities from the economic downturn combined with the consumer identities created by modern culture.
- **Environmental** factors for identities include place attachment and the threats posed to identities by changes which threaten valued places, and the role of the built environment in creating identities influencing where and how people live. The section goes on to consider environmental change and risks, such as flooding, and the potential impacts on community and individual identities.
- **Political** trends considered in this section include the long-term trend of declining trust in authority in the UK, including trust in government, and national identities focusing on 'Britishness' as a component of people's identities.

1. Introduction 7

Chapter 4 discusses some particularly important challenges and opportunities relating to a range of policy areas. It draws out three main themes for future changes to identities, based on the evidence set out in the previous chapter, and goes on to explore these themes for six key areas of government policy: social mobility; social integration; radicalisation and extremism; health, environment and wellbeing; skills, employment and education; and crime and criminal justice.

Box I.I: Scenarios

Scenarios developed for this Project explore how identities might change over the next 10 years. They were created by identifying a series of potential events and trends which might plausibly occur over the next decade in the UK. Two characters, 'Esther' and 'Dylan', were then created and used to populate a storyline for the Report. Their lives and characters were developed to imagine how the events and trends might affect them. The storylines for Esther and Dylan are set out in boxes throughout Chapter 3.

The scenarios provided useful insights to interpret the drivers of change, and to show how these drivers of change may affect individuals' daily lives. They are used, for example in Section 2.1, to illustrate how different identities become more salient according to the particular context, and in Chapter 3 the scenarios draw out key points of the analysis. The characters show how these drivers can impact very differently on individuals in their everyday lives: an important consideration for policy makers.

2. What is identity and why does it matter?

2.1 Definition of an individual's identity

An individual's 'identity' can be defined as those characteristics which determine who a person is: this includes an individual's perception of themself as similar to, or different from, other people, but identities can also be imposed by others. Dictionary definitions of 'identity' owe much to a more simplistic notion of 'identity' made popular during the 1950s by the developmental psychologist Erik Erikson²¹ through his work on psychosocial stages of development and his coining of the term 'identity crisis'. His concept of 'ego identity' as a term in psychology suggested that identity is shaped by the interaction of three elements: a person's biological characteristics, their psychology, and the cultural context. He emphasised the sameness and consistency of identity over time, so that in different times and places, a person continues to have an innate sense of being the same person, although their circumstances may change and cause a shift in their sense of self-identity²².

Since then, however, identity has become a key concept in a wide range of academic disciplines including political science, the social sciences, and the humanities, and definitions of identity have expanded accordingly. There is, therefore, no single agreed-upon definition². It is worth noting the historical and culturally-specific nature of much academic research into identity, as a concern of Western, urbanised, technologically-advanced, societies, which some see as a symptom of social complexity and uncertainty. Others have explored identity from a socio-cultural perspective, as individual narratives to bring diverse elements into an integrated whole, or focused on the transition from adolescence to adulthood as a time of 'finding' an identity²².

These different interpretations have shown that identities are socially constructed and highly complex. Many different types of identity are now discussed, such as cultural identity, organisational identity, and national identity (at the level of the nation-state). Even for an individual, there are multiple possible identities, which overlap, and can change over time or in different circumstances. People therefore each have an identity which is the sum of many different aspects about themselves, and together these give them a fundamental sense of meaning in their lives.

This Report does not attempt to be comprehensive in covering all aspects of people's identities, but shows that identities can be best understood as complex, multifaceted, and highly contextual. The Report therefore refers to a person's 'identities' rather than 'identity' in the following terms:

- Identities refer to the way in which individuals perceive themselves and their place in the world, and how they are categorised by others. People have coexisting, multifaceted, overlapping identities, which alter in emphasis depending upon the context. At home a person might find their identity as a parent most important, while at work they might identify as a company employee, and online pursue a hobby as part of an interest group. Some identities can change over the life course of an individual.
- Identities can be *elective* or chosen by an individual, such as by self-categorised membership of a social group, or *ascribed* and controlled by others, for example through data held on a person by a supermarket.
- Identities can be *inclusive*, such as membership of a family, team, religion or other group, or *exclusive*, defined by not being a member of a particular group. Again, these identities can be controlled by the individual or by others, for instance through rejection from a group.

Three overlapping types of identities can be broadly distinguished: social, biographical, and biometric (see Figure 2.1):

- Social identities are generated through roles and relationships between people, and the wider social and cultural context. These include identities which are socially mediated, such as family relationships, friendships, membership of communities, and attachment to particular places.
- **Biographical identities** are more 'standalone' identities which individuals might use to describe themselves to another or how they perceive themselves. These might include national identity, as well as ethnicity and religion although these also have a strong social role. Identities such as a professional role or financial status might also be considered biographical identities.
- **Biometric identities** are those aspects of identity related to the body, including unique characteristics such as DNA, fingerprints, irises and faces, which can be used as a means of authentication to verify that people are who they say they are. Biometric identities are beyond the scope of this Report (and so are marked by a dotted line in Figure 2.1).

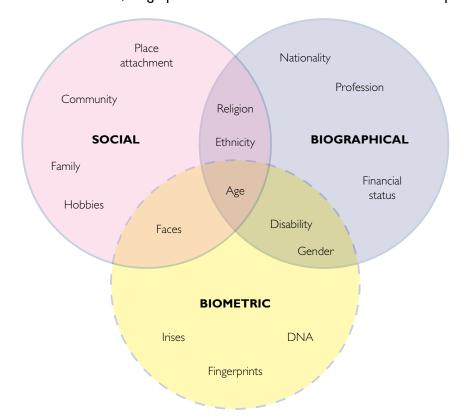


Figure 2.1: Types of identities: social, biographical and biometric identities and some examples of each type.

Source: Foresight

An individual therefore has a coherent sense of self which is constructed from many components, and these could be considered as different 'identities'. Some aspects of an individual's identity are less likely to change (gender, disability, or sexuality): these have been excluded from this work, as drivers of change will have little impact upon them. Ethnic identity, while unlikely to change significantly for an individual over their life, is an important element of how people define themselves and others, and at the wider community level, ethnic identities can be affected by drivers of change, so ethnicity is one of the identities discussed in this Report.

Some types of identities change only very gradually over a lifespan (for example, age), while others have the potential to change over time, or may remain fairly stable (such as national or religious identity, or attachment to places such as where people live or work). For these identities any future changes are likely to be slow, particularly over the 10 year time period considered in this Report. However, other elements which form social identities can be more changeable, overlapping, or even volatile, for example, when people belong to different communities (including online communities) or friendship groups. Some stages of life carry shifting family roles

and responsibilities which give rise to distinct identities (for example, being a child, being in a relationship, becoming a parent or grandparent), while professional and financial identities can change as jobs, status, careers and experiences alter. People can also have identities related to hobbies, leisure and consumption, which for some people can change rapidly, while others maintain their 'hobbies' as a core part of themselves over a long period of time.

It is clear, therefore, that the context is important in understanding which identities are more relevant at any one time or place. People are affected by contexts in different ways. Figure 2.2 illustrates this idea for two hypothetical 'personas', named 'Esther' and 'Dylan', which are characters developed for the scenarios in this Report (introduced in Chapter I and discussed in this chapter and Chapter 3). The figure shows for each persona a number of different aspects of their identities, as described above, and plots for illustrative purposes how their identities shift in importance according to changing circumstances. In Figure 2.2, Esther's religion and ethnicity are not important parts of who she is in the four contexts shown, while she finds her community and friendship group and hobbies are very important aspects of her identity when she uses social media online. Dylan finds his ethnic identity as a Welshman is important to him when at work, and has a stronger religious identity at home compared with Esther.

2.2 Why do identities matter to policy makers?

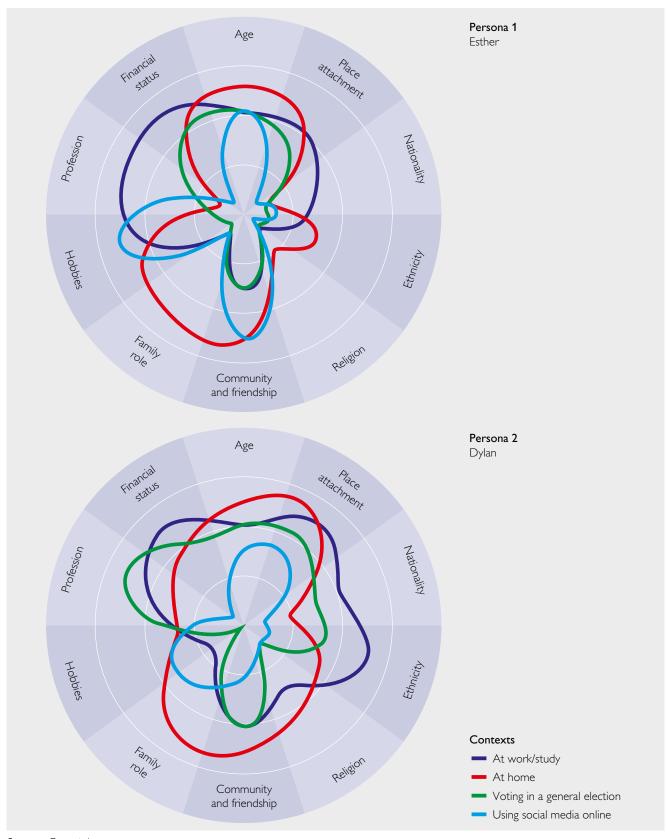
There are several reasons why identities are important for policy makers in government.

- Identities are integral to mental health and wellbeing as they determine to a great extent how a person understands their place in the world, and how they relate to others²³. Maintaining and expressing multiple identities freely is important for individual wellbeing and social integration²⁴. For an individual, their various identities are fundamental to selfhood and are deeply rooted in their psychology.
- Identities influence people's behaviour, but are not necessarily predictive of behaviour, especially at the level of the individual. While identities can provide a guide to likely behaviours (for example, a worker would be expected to travel to their place of work), it is important to understand which identities could come to the fore at any particular time and disrupt behavioural patterns (for example, the worker might instead stay at home to care for their sick child). As there are many potential variables which can affect the situation, it is problematic to extrapolate in simple terms from an 'identity' to 'behaviour'.
- Identities are highly valued by individuals as a fundamental part of themselves. A person's identities can have personal, psychological, social, and also commercial value^{3 5}. Identities are also valued by social groups, businesses, corporations, and nation states, for example through names, national insurance numbers, passports, online passwords and signatures, which are the basis for how people operate in the modern world. For corporations, identities are crucial to their brand; while national identities are important for states¹⁹. The commercial value of identities is, of course, of interest to the private sector, and also to criminals interested in exploiting identities. For government, identities are a resource that can be drawn upon to deliver better services, and used as an analytical framework for understanding policy implications.
- Identities can be a resource for social change mediated through networks of social relationships, membership of groups, shared aspirations and ideologies. Identities as part of groups and communities contribute to building social capital, and so these identities can sometimes be mobilised to influence social or behavioural change¹⁰. This can be a positive force for social good, exemplified by the solidarity seen in the London 2012 Olympics and Paralympics, or a destructive force, for example the 2011 riots in parts of the UK. Due to the development and spread of new technologies, mobile smart-phones, social networking, and the trend towards hyper-connectivity, disparate groups can be more easily mobilised where their interests temporarily coincide⁷; for example, a 'flash mob'¹¹ can be quickly mobilised between people who have not previously met.

ii A 'flash mob' is the term used to describe a recent phenomenon where a group of people assemble in a public place, sometimes to perform an action, and then quickly disperse, and is often organised through telecommunications, social media or email.

Figure 2.2: This diagram shows how, for two hypothetical people, the various elements which make up their identities can shift in emphasis.

As a particular aspect of identity becomes more important, the line moves outwards, while less important identities are nearer the centre. Four different contexts are shown for each person, exploring how identities alter in emphasis according to the context. The plots are based on information generated from the scenarios for two personas, Esther and Dylan, which are used to explore some of the key drivers of change in Chapter 3.



Source: Foresight

• Identities are often focused on local and personal issues, as people's sense of self and daily activities can be more affected by local events, community, family, friends and personal experiences than by major events or sociocultural trends. However, the very local can now be closely linked to global events, due to the well-documented impact of globalisation and the ease of modern, global communications. The UK is now connected to events around the world with high-speed communication networks, and so social integration in local areas can be affected by events in another country; the new 'glocalism'²⁵. However, the same trends can act to increase social capital²⁶, bringing together communities around new hubs of interest.

Understanding how drivers of change might affect social and biographical identities over the next decade is important for government. For example, the value of identities should be an important consideration when designing policy initiatives that seek to amalgamate and use data sets, or provide new online digital services, where the balance between privacy and security is being carefully considered.

This Report sets out the changing trends which could affect identities in the UK over the next 10 years and draws out some of the implications for policy of changing identities. Trends which could affect identities, such as new technology, and hyper-connectivity, where individuals are constantly connected to the internet, are highly complex and can be difficult to predict. In the past, people have failed to predict the ubiquity of computing, of text messaging, and of mobile phone technology^{1–20}. Several important changes can already be anticipated, such as the increased use of social media and mobile computing technology, but it is difficult to predict with any degree of certainty how these changes may develop over the next 10 years. Managing uncertainty amid the accelerating pace of technological change will be a critical issue for government over the next decade and beyond.

3. Drivers of change

This chapter explores many of the drivers of change that have the potential to affect people's identities in the UK over the next decade. New technologies including social media, the generation of 'big data', and a constantly networked population, are considered to be among the main drivers of change over the next decade; while religious and national identities are likely to remain stable, or change more slowly. Demographic trends will bring about gradual change in some identities as attitudes to age shift, while wider economic trends and the impact of the economic downturn may particularly affect some socioeconomic groups.

There are many key drivers of change affecting identities in the UK, such as demographic change, the impacts of new and emerging technologies, the current economic downturn, and changes to the environment. Some are developing rapidly, such as the impact of social media and mobile computing technology that enables people to be always connected to the internet wherever they are²³. The increasingly dense networks of information and rapid pace of development in communications technology will continue to transform the ways in which people interact, both locally and globally²⁷. Other drivers of change may act more slowly. Over the next decade these various trends will influence how people perceive themselves and others (their social identities), the groups they form or join, and their national and political identities (their biographical identities).

People's identities can both be affected by change, and drive future developments. For example, identities can be manipulated for marketing purposes to promote a product as a 'lifestyle' accessory or the latest must-have technology for young people²⁸. Identities can also be a factor in bringing about new developments, as people are not passive consumers, but are able to make choices²⁹. For example, an ageing population could drive demand for advances in medicine and new consumer products. Therefore, in considering drivers of change and how they might affect identities over the next 10 years, it is important to recognise the role of identities in co-creating some of these changes, and also the uncertainties inherent in any futures-orientated analysis. This chapter analyses the likely trends of different drivers and their possible impacts on people's identities in the UK over the next decade. It should be noted that the future trends described here are not intended to be predictive but to explore plausible future trajectories.

These drivers are grouped into five broad categories: social, technological, economic, environmental, and political.

3.1 Social drivers

3.1.1 An ageing population

Demographic trends and an ageing society are important social drivers of change. The effects of demographic changes are affecting not only social and economic policies in the UK, but also people's identities, attitudes and behaviours. This section explores some of the main demographic trends affecting UK society and considers how they might influence people's identities over the next decade.

The Office for National Statistics models the major trends for the UK's population over the next 75 years using assumptions about future levels of fertility, mortality, and migration based on the previous five years³⁰. These projections do not take into account the impact that new or future government policies, changing economic

circumstances or other factors might have on future demographic behaviour³¹, but provide a useful assessment of how the population of the UK will change. Predictions show a gradual increase in the size of the population of the UK by 4.8 million people over the next decade from an estimated 63.2 million in 2012 to 68.1 million in 2022³². It is expected that this trend will continue with a predicted population of 73.2 million by mid-2035 (Figure 3.1). It is estimated that some 68% of projected population growth in the period to 2035 will be attributable, directly or indirectly, to net migration³³. Because demographic changes are so gradual, Figure 3.1 shows the data projected out to 2035 in order to clearly demonstrate the long-term trends.

Age Males **Females** Population (thousands)

Figure 3.1: Estimated and projected age structure of the UK population, mid-2010 and mid-2035.

Source: Office for National Statistics³⁴.

Predictions show there will be a slight increase in the median age of the UK population, rising from 39.9 years in 2012 to 40.1 years in 2022³², which is forecast to continue to 2035 (Figure 3.1). This will coincide with the entry of the large UK post-war birth cohorts into late middle and old age¹³, so the proportion of older people will be greater, with the number of over-75 year olds increasing from 5.1 million in 2012 to 6.6 million in 2022, a rise of more than 20%³⁵. Greater numbers of older people, living for longer, mean that pension arrangements will be a rising cost for the state and for businesses. Meanwhile, the number of children aged under 16 is projected, based on the Office for National Statistics' assumptions about future fertility, mortality and migration, to grow slightly from 11.8 million in 2012 to 13.2 million in 2022, a rise of 3.6%, and continue to rise until 2026³⁵.

This changing age composition of the UK population is being driven by the combined effects of increased longevity and falling fertility rates. Life expectancy has been steadily increasing, and some have suggested that since 2000, half of those born each year can expect to reach 100 years of age³⁶. The two-child family remains the most common family type. In 2010, family size for women who had completed their families averaged 1.91 children³⁷. The UK's Total Fertility Rate has remained mainly below replacement levels (2.0) since the 1970s³⁸ and this trend is expected to continue with a projected Total Fertility Rate of 1.88 by 2022³⁵. Within this overall trend, the proportion of births to non-UK born women has increased from 22% in 2007 to 24% of all births in the UK in 2011⁴⁰. Total Fertility Rates are higher for non-UK born women (2.28 in 2011, compared with 1.89 for UK born women). The top five countries of origin for non-UK born mothers in 2011 were Poland, Pakistan, India, Bangladesh, and Nigeria.

As these demographic changes are so gradual, overall the patterns of family and household living will not change significantly over the next 10 years. However, there may be changes to identities generated by changing attitudes towards different age groups. Traditionally, life stages have been defined as childhood, adolescence, young adulthood, middle-age, and old-age. However, an important trend for people's identities is the emergence of new life stages¹³, such as the more prolonged transitions between adolescence and adulthood ('emerging adulthood', referring to people in their 20s and early 30s) and between middle-age and old-age ('older adulthood': roughly between the ages 60 and 75)^{41 42}, with a fluid period of reaching 'full adulthood' and then 'middle adulthood' sandwiched in between¹³. Increasingly these life stages are being either delayed, extended, or blurred together, and are likely to become even more fluid in future¹³. 'Older adulthood' describes a group who are largely healthy and still active, while 'old-age adulthood' refers to those aged 75 and over, some of whom are declining or frail¹³. These categories give rise to different needs and services, for example the increased incidence of chronic health problems and mental decline such as dementia has produced an increased focus on health provision and social support for the very elderly⁴³. By 2022 the present 'baby boomers' will be moving from older adulthood into old-age as they begin to approach and turn 80¹³, an important transition for many from relative independence to increasing dependency.

Reaching traditional 'full adulthood' is marked by a convergence of life course transitions, age, individual experiences, and cohort experiences, such as getting married or cohabiting, becoming a parent, moving away from the parental home, setting up a home and becoming established in a career. By 2022 those people in 'emerging adulthood' (post-adolescence) may face very different life experiences and find it more difficult to achieve these 'full adulthood' rites of passage¹³, for example by remaining in or moving back into the parental home. In 2011, nearly 3 million adults aged between 20 and 34 were living in their parents' home, an increase of almost half a million, or 20%, since 1997, despite the number of people in this age group being similar in 1997 and 2011⁴⁴. They may therefore continue more youthful patterns of material consumption and activities, undertaking periods of education and employment interspersed with sabbaticals for leisure¹³.

The gradual shift in different age groups discussed above means that the dependency ratio – the ratio between those of working age (aged 16–64) and those either under-16 or 65 and over – will alter gradually too. The number of dependants per 1,000 persons of working age is projected to alter from 615 in 2012 to 628 in 2022³⁵. This could lead to greater stresses upon the 'middle' generations, especially those with caring responsibilities, and increasing demands on the state for health, welfare, and social care provision. There will be greater demand for informal care of older people by their spouses and children. The number of people providing care to older parents is projected to increase by 27.5% between 2005 and 2041, from nearly 400,000 in 2005 to around 500,000 in 2041, with most of this increase occurring by 2022⁴⁵. People's identities may be under greater pressure from their different roles as carers, parents, and children, and balancing their working and family lives may be difficult. There may be increasing resentment against the burdens faced by those who find themselves still in work later than they anticipated, caring for elderly parents and providing resources and housing for older children or divorced adult offspring returning home.

An ageing UK population will alter intergenerational relationships and change the make-up of workforces as average retirement ages rise. The number of people of state pension ageⁱⁱⁱ and above still in employment nearly doubled between 1993 and 2011, to 1.4 million in 2011⁴⁶, and seems likely to continue growing. While population predictions show there will be larger numbers of people aged 65 and older⁴⁷, changes to the state pension age for women along with the removal of statutory retirement ages mean that they will not necessarily be retired from work. However, this trend will not offset the overall change in the dependency ratio between working and non-working sections of the population.

Living longer and healthier lives means that traditional age-based social categories are becoming less important for people in the UK. Age may become less of a factor compared with the specific situation faced by the individual, in terms of family, where they live, elderly dependants, and whether or not they are in work. For many people aged 65 and over, their age is not a crucial part of their identity, but health, socio-economic status, and family relationships are more important, for example being a parent, or grandparent⁴⁸. For this age group, wellbeing is seen as being able to continue doing the things they have always been able to do⁴⁹. For the more affluent middle classes, a comfortable and leisured early old-age can be enjoyed while health lasts. However, this will not be the case for all, as many people will lack the financial resources needed to achieve this level of comfort and security. The scenarios developed for this Report illustrate some of these issues and their implications for people's identities, using the persona of Dylan who is contemplating an uncertain future in retirement (see Box 3.1: Dylan 2013).

Box 3.1: Dylan 2013

These scenarios illustrate how drivers of change may affect individuals in different contexts (see Chapter 2 for an introduction to the scenarios)



Dylan is a Welsh former miner living in South Wales. In 2013 he is 60 years old. He is working as a trained mountain guide, but the work is low-paid and he is struggling financially. Although he has looked for work elsewhere, he has been unable to find better-paid employment and suspects people are unwilling to take him on because of his age. His wife is now the major wage earner, with her job in retail managing a local shop. She is more computer-literate than he is, having had to use computers for her work, and has Facebook and Skype accounts, which are mainly used to keep in touch with their family. They have been married for 35 years and have two adult children, a son living in Australia and a daughter in London. His daughter rents a flat with a friend. She had wanted to buy a place of her own, but Dylan could not afford to help her out with a deposit. Dylan's elderly mother is suffering from dementia and living in a private care home near Swansea, but he rarely visits her, preferring to remember her the way she was. Dylan enjoys spending time drinking with his rugby club friends, and rarely, if ever, uses the internet. The tourists he meets through work keep him up-to-date with most of the news issues.

iii State pension age is now between 65 and 68 depending when someone was born. Statutory retirement age in the UK was 65, but this limit was abolished in 2011.

3.1.2 Young people

Many commentators have noted the emergence of a new 'Generation Z', loosely defined as those born after the mid-1990s (under-18 year olds) who are immersed from an early age in a digital environment and are comfortable with new technology⁵⁰. They can have better computer skills than their parents⁵¹ and expect to access services online, but levels of understanding of online safety and security are varied and they may not know where to turn for advice⁵². This age group has high expectations as consumers⁵³, with an emphasis on purchasing new technology and experiences, such as holidays⁵⁴. Their mind-set will be very different from that of previous generations: this will have major implications for policy makers in understanding how these young people relate to the world and integrate into society.

Adolescents and young adults are adversely affected by the economic downturn as well as by broader labour market trends⁵⁵. The most recent labour market statistics for July to September 2012 showed that, excluding those in full-time education, there were 648,000 unemployed 16–24 year olds in the UK, 18.7% of the economically active population, down by 65,000 from the preceding April–June period⁵⁶. From 2008 to 2010, the number of 16–18 year olds not in education, employment, or training (NEET) increased from 811,000 to 928,000, or from 13.6% to 15.4%⁵⁷. These younger people have fewer skills and little experience, and are often cheap to make redundant⁵⁸. Over the next 10 years, those currently under 24 years old are likely to have more delayed transitions to established 'full adulthood' identities than in the past¹³, as they might find it harder to find stable jobs. In turn they may delay marriage or cohabitation, and be less able to secure mortgages that would allow them to settle down as homeowners. Socio-economic factors are also important, as middle-income young adults can make later transitions to adult lifestyle status, while those who grow up in poverty and experience hardships identify as adults earlier, in their teens or early twenties⁵⁹.

Both younger and older people can feel discriminated against because of their age⁶⁰ and social stereotyping of particular identities. As the numbers of under-16s and over-60s rise over the next two decades, this issue may become even more prominent. Some people perceive adolescents as being linked to antisocial behaviour or disorder, which can increase fear of crime⁶¹. Young people in the UK may also become increasingly alienated by the apparent concentration of power and wealth in the hands of the baby-boomer generation, and also by their difficulty in finding the kinds of jobs they had been led to expect⁶². UK graduates who have paid tuition fees may feel entitled to expect well-paid roles, while employers will want specific skill sets for the changing labour markets. The difference in expectations may lead to resentment among those who feel there are reduced opportunities for younger people. The scenarios developed for this Report explore this idea using a character called Esther, who is a graduate burdened with debt and struggling to establish a career (see Box 3.2: Esther 2013).

Box 3.2: Esther 2013

These scenarios illustrate how drivers of change may affect individuals in different contexts (see Chapter 2 for an introduction to these scenarios)



In 2013, Esther is a 22 year old History of Art graduate living in Yorkshire. She is an active user of several social networking sites and often updates her Facebook pages, runs her own online blog on art, including posting photographs of her own paintings, and has a large digital footprint. Although Esther has tried to sell her own paintings, both online and in small local exhibitions, she hasn't made much money from them. Esther has a full-time job, an entry-level job at a large UK bank, but she isn't earning enough to rent or buy her own flat, so she is living at home with her parents and commutes into Leeds for work. Although this isn't her dream job, Esther has a £10,000 debt from her university days, and as her job pays just over the threshold for repayment, she has begun to pay off her debt. Esther considers herself quite fortunate as most of the friends she graduated with have not been able to find work at all, or are in temporary low-paid work. However, her job and the commute leaves her little time to pursue her hobbies and ambitions.

3.1.3 Religion and secularisation

Since the 1980s religious identities in the UK have shown a long-term trend towards increasing secularisation ^{14 63}. While the main religion in the UK is Christianity, church attendance has been declining⁶⁴ and the Christian religion has become less important for many people's identities. The secularisation trend is shown in the 2011 Census, in which the number of people identifying themselves as having no religion rose from 14.8% of the population in 2011 to 25.1% of the population in 2011, while the numbers of people identifying themselves as Christian dropped from 72% in 2001 to 59% in 2011⁶⁵. Younger people tend to be less religious than older people⁶⁶, as shown in a 2011 Office for National Statistics survey, where 87.6% of over-65 year olds identified themselves as Christian compared with 59.7% of under-20 years olds (Table 3.1)⁶⁷. As younger, generally less religious, generations replace older generations, it is likely that overall, religiosity will plateau at a low level but not necessarily decrease further¹⁴. The secularisation trend is so gradual that it is very likely that the strength of UK religious identity will not be significantly altered over the next 10 years¹⁴.

Table 3.1: Religion by age group (%), Integrated Household Survey April 2010 to March 2011.

Religion	Under 20	16–28	25–38	35–53	50–68	65+
Christian	59.7	58.9	55.4	66.8	78.3	87.6
Buddhist	0.3	0.4	0.6	0.5	0.4	0.1
Hindu	1.3	1.5	2.4	1.4	1.1	0.6
Jewish	0.4	0.3	0.4	0.4	0.5	0.7
Muslim	7.9	5.5	6.4	4.0	1.9	1.1
Sikh	0.8	0.8	1.0	0.7	0.6	0.4
Any other religion	0.8	0.9	1.2	1.2	1.3	1.1
No religion at all	29.0	31.6	32.5	25.0	15.9	8.4

Source: Office for National Statistics⁶⁷.

However, there are smaller counter-trends. The overall UK trend of rising secularisation is less pronounced in Northern Ireland, and among both the Muslim and the Roman Catholic populations in the rest of UK⁶⁸. The immigrant minority ethnic population in the UK are more religious on average than the White Britishiv population. Among British minority ethnic groups, Pakistanis, Bangladeshis, and Black Africans seem significantly more likely to assert the importance of their religion to their identity. However, these groups are showing similar patterns of intergenerational decline, with the 'second generation' being generally less religious than their immigrant parents⁶⁹.

While still showing the same intergenerational trend towards secularisation^{70 71}, religiosity among the Muslim community is declining only very slowly, so Muslims are more likely to state that their religious identity is important to them¹⁵. There may be several reasons for this trend, including a component of religious revival, a reaction against perceived hostility towards Muslims, and the impact of international events⁷². For those who do continue to assert strong religious identities, the meaning or implications of their religiosity may be different from those of their parents; for example, these individuals might feel that they are asserting a 'pure' version of the faith⁷², or one that is compatible with less 'traditional' attitudes or behaviours^{15 73}. Some analysts suggest that the decline in religious identity in some sectors of society and across generations may reverse⁷⁴, so the children of non-religious parents may nevertheless assert a religious faith. This appears to be particularly the case among young Muslims.

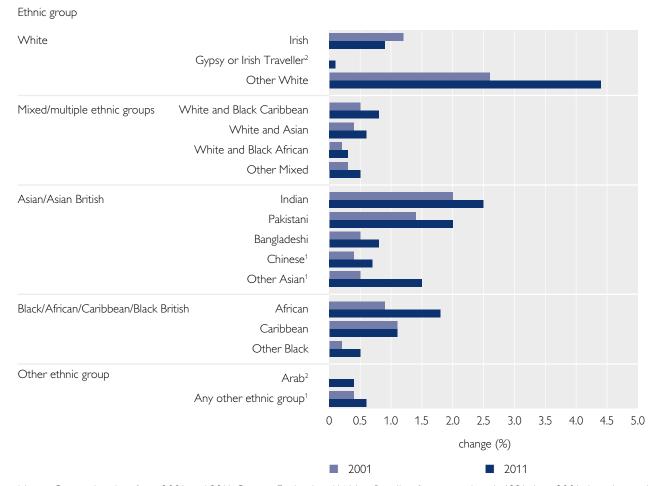
3.1.4 Diversity

The 2011 Census showed that 80.5% of the population of England and Wales identify themselves as White British, with London being the most ethnically diverse area and Wales the least diverse⁷⁵. The Census showed that in 2011, 13% of people resident in England and Wales were born outside the UK, while the most common countries of birth were India, Poland, and Pakistan. Around half of these immigrants had arrived in the UK over the previous 10 years. The minority ethnic population (non-White British) has risen steadily over the preceding decade¹⁸ as shown in Figure 3.2. Net international migration was a major component in this increase. Since the 1980s, net migration has been positive in most years (meaning more people have entered the UK than left)¹⁸.

iv An ethnic category used for the Census by the Office for National Statistics.

v 'Second generation' refers to those born in this country whose parents immigrated into the UK.

Figure 3.2: Change in ethnic composition of the population in England and Wales.



Notes: Comparing data from 2001 and 2011 Census, England and Wales. Baseline for comparison is 1991 data; 2001 data shows change from 1991 to 2011; 2011 data shows change from 1991 to 2011.

Source: Census data, Office for National Statistics⁷⁶.

The share of the population in England and Wales from minority ethnic (non-White British) groups is projected to continue to rise over the next decade, and to become more geographically dispersed. Minority ethnic groups, concentrated in a few areas in 2001⁷⁷, are projected to become more widely distributed, while the major cities are predicted to have much larger minority ethnic populations in the future¹⁸. This pattern of increasing diversity has an age dimension. Minority ethnic groups are likely on average to have a lower age than the general population, as immigrants tend to be younger people, and total fertility rates among non-UK born women are higher (as discussed in Section 3.1.1).

Since 2004 there has been a trend towards inward migration from the eight EU Accession countries. Long-term international migration estimates for the eight Accession countries suggest that in 2010, net migration into the UK was 49,000, 15% of net migration, compared with a peak of 20% in 2007. The Office for National Statistics' Annual Population Survey suggests that in March 2011 there were two million EU citizens living in the UK, and 872,000, or 42%, of those were from the eight EU Accession countries⁷⁸. This group seem more likely to live in different regions from other minority ethnic immigrants, and less likely to settle permanently. As a group, they have a greater proportion of younger people compared with the general population.

¹ Comparibility issues exist between these ethnic groups for the 2001 and 2011 Censuses

² No comparable data exists for these ethnic groups in 2001 Census

Some commentators are concerned that this trend of increased net inward migration will create social division and social tension¹⁰. Surveys suggest that about two-thirds of the UK population feel there are 'too many immigrants in Britain', and that this proportion has remained more or less constant over the past two decades⁷⁹. The 2009 European Values Study found that 69% of UK respondents 'agreed' or 'strongly agreed' that there were too many immigrants living in the country, compared with an average of 44% for all 47 countries in the survey⁸⁰. This is based on a particular view of identity which sees new arrivals of an indigenous community as 'other' and a threat. However, recent research shows a significant and steep decline in levels of prejudice against minorities between older and younger generations, which suggests a rise in tolerant attitudes among younger people⁸¹ and a more positive attitude towards immigrants¹⁰ 82.

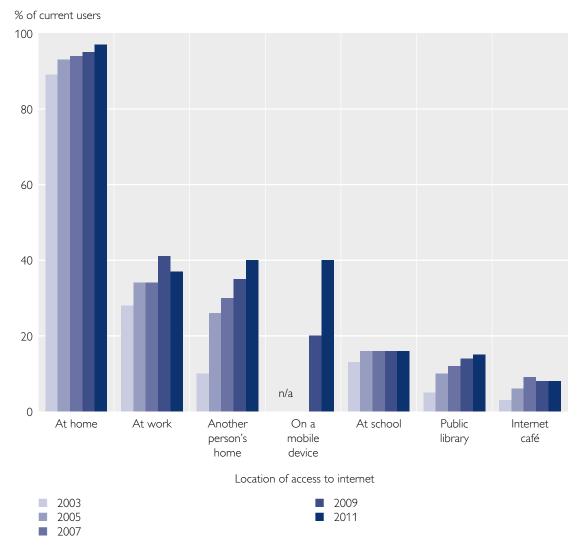
There is some evidence that some social and minority ethnic groups experience very different levels of social integration⁸³. Black Caribbean young people tend to have lower levels of a sense of belonging to Britain. In 2005 the Home Office Citizenship Survey found that, overall, 17% of all 16–24 year olds surveyed from all ethnic groups in England said they 'Do not belong strongly' to Britain, while for the Black Caribbean/Black Other group of 16–24 year olds, 40% said they felt they 'Do not belong strongly' to Britain, even if they had been born in Britain. However, sample sizes were relatively small (1,394 in total with only 83 in the Black Caribbean/Black Other group)⁸⁴. Other research has found that this ethnic group has also reported feeling high levels of relative deprivation, and felt they were held back unfairly by prejudice and discrimination⁸⁵ ⁸⁶. The survey also showed much less trust in British political institutions and in the way that democracy works¹⁶. There is a so-called 'integration paradox', where ethnic minorities, such as the Black Caribbean group, who have relatively high levels of contact with the White British majority, are also more acutely aware of and sensitive to prejudice and discrimination, while groups that lead more separate lives may actually be less aware of prejudice. There is also evidence that minority ethnic people who are more highly educated, and in that sense more integrated, are also more aware of and sensitive to discrimination¹⁵ ⁸⁷.

3.1.5 Hyper-connectivity

Hyper-connectivity is the use of multiple communications systems and devices to remain constantly connected to social networks and streams of information⁸⁸. Hyper-connectivity has several key attributes: being 'always on' (connected all of the time and everywhere); readily accessible; information-rich beyond any individual's capacity to consume; interactive, not only between people but also involving people-to-machine and machine-to-machine communications; and always recording, with virtually unlimited storage capacity facilitating people's desire to document their lives⁸⁹.

This driver is considered one of the key developments of the early 21st century⁹⁰, enabled by the trend towards increasing ubiquity of internet access and the rapid rise between 2009 and 2011 in accessing the internet through mobile devices (see Figure 3.3). By 2011 there were more devices connected to the internet than there were people in the world, and numbers are predicted to reach 15 billion by 2015⁹¹. In the UK, 80% of households had internet access in 2012, having increased by 23% since 2006⁹². Mobile smart-phones and social networking mean that the internet can be pervasive and people can be constantly connected to it.

Figure 3.3: How people access the internet.



Note: 2003: sample size = 1,202; 2005: sample size = 1,309; 2007: sample size = 1,578; 2009: sample size = 1,401; 2011: sample size = 1,498 Survey conducted every two years. Respondents could select multiple responses to the question, 'Could I ask you about all the places you access the internet?'

Source: Oxford Internet Survey 2011, Oxford Internet Institute⁹³.

There is an age-related aspect to hyper-connectivity, with a greater take-up of internet-based communications by younger people than older people. In a 2011 survey of 994 British young people aged 16–24, 45% said they felt happiest when they were online; 86% felt new technology helps them to communicate with people; and 96% said they access another media device such as a mobile phone while using the internet⁹⁴. Increasing digital network coverage and higher access speeds will continue to drive this trend, while bringing new opportunities to rural communities. However, there remains a significant minority of 'excluded' households, both rural and urban, who by choice, culture, or circumstances cannot or do not access the internet and who are 'digitally excluded'. There is also a minority of about 10% (aged 17–23) who define themselves as lapsed internet users, often having had limited home access and restricted resources (psychological, cognitive, socio-cultural, physical or material)⁹⁵.

The trend towards hyper-connectivity has the potential to have a positive impact on migrant communities in maintaining social connections with family and friends⁹⁶ ⁹⁷. There is now the capacity for migrants to communicate online with people from their natal country, although this could also serve to isolate them more from the host society and so impede integration². Over the next 10 years, dispersed communities will increasingly be able to stay in close touch with events in their country of origin. This means that events which occur elsewhere in the world can have an immediate impact on people's identities in the UK⁹⁸, for example

through the transmission of consumer culture, heightened awareness of political events elsewhere, and responses to perceived persecution in other countries.

It is difficult to speculate on the likely impact of growing hyper-connectivity. People may find it harder to disconnect themselves, or to maintain distinct identities in different situations. One likely development is that the increasingly networked state of many people's lives could blur the boundaries between online and offline identities, and between work and social identities. The advent of widespread mobile technology and email has led to more people remaining connected to their work during the evenings, weekends and other leisure times. In future, this blurring effect could make it harder for businesses to prevent people from maintaining contacts outside of the workplace. This breakdown in the barrier between separate identities could be among the most important and transformative consequences of social and technological changes². The scenarios developed for this Report illustrate how generational divisions in access to the internet and familiarity with using it may lead to tensions (see Box 3.3: Dylan 2014).

Box 3.3: Dylan 2014

These scenarios illustrate how drivers of change may affect individuals in different contexts



In 2014, Dylan's daughter changes jobs to one which enables her to work remotely, and so to save on rent costs she moves from London back into her parents' home in South Wales. She helps Dylan to become more familiar with the latest technology, buying him an e-book reader and setting up an email account and social networking account for him. Dylan finds he is able to use these while she is there, and is pleased to join the local church group's online followers so he can see what events are going on locally, but he finds it odd to be taught by his daughter. Dylan had thought it might be nice to have her back home again, but she often shuts herself away in her room to work, or stays out late with her friends, which is a source of tension between them. A further source of tension arises when, without checking with his daughter, Dylan responds to an email scam, giving his bank account details and is defrauded by several hundred pounds. The incident increases his feelings of social distrust and he begins to resent his reliance on his daughter for online matters.

Summary

The trends discussed here suggest that several social changes will affect identities in the UK over the next 10 years. However, some changes such as the ageing population, secularisation, and diversity, are likely to be very gradual. Demographic trends suggest that age categories will become more blurred as people choose to define themselves less by age and more by family roles. At the same time, intergenerational relationships could come under strain. Young people as 'digital natives' could have very different sets of expectations, linked to the trend towards hyper-connectivity, which can pose both opportunities and challenges for society.

3.2 Technological drivers

3.2.1 Online identities

For many people, a substantial proportion of their waking lives is spent online or interacting with the digital environment, and 'Generation Z' will have known little else⁹⁹. In recent years social networking has expanded to include 'professional' networking sites and other forms of expression and exploration such as 'blogging', Twitter, avatars, gaming, personal web-pages, or membership of various internet discussion groups. Almost every online platform is different and potentially contradictory; for example, blogging may be private or public while Facebook can be accessible to friends only or open to all. In the case of Twitter, messages can usually be read by everyone unless personal messaging is used. Online platforms are changing radically and rapidly; for example, online multiplayer gaming is replacing participation by individual gaming. Mobile technologies are playing a role in driving change, with new formats and apps being launched to run on smart-phones, while the notion of computers as being separate from people is changing, as many now keep their own personal networked computer in the form of their smart-phone with them at all times.

The proliferation of communications technologies over a range of platforms can be described as a 'poly-media' environment¹⁰⁰, and people now use different platforms simultaneously or to complement one another¹⁰¹. Their identities across online platforms may be broadly similar or may shift in emphasis, for example from a professional identity to a social identity, and between media, for example text messaging versus face-to-face conversations via a webcam. The poly-media environment requires an individual's identity to perform different functions in a digital networked world¹⁹, for example when a person is using an online bank, making purchases from an online retail websites, or participating in social media.

In the early years of widespread internet usage, there were concerns that the internet diminished 'real' identity, and prevented face-to-face human socialisation, with online identities being seen as very different from those in the offline 'real' world¹⁰². Being online makes it easier for people to explore new forms of identities, such as fantasy avatars, and to shift identity or secure multiple identities with relative freedom². While individuals can choose to present themselves in different ways depending on their audience³, these are simply multiple identities that are often extensions of offline identities. As people have become accustomed to switching seamlessly between the internet and the physical world, they have begun to use social media to pursue friendships, continue conversations, and make arrangements in a way which dissolves the divide between online and offline. The internet does not produce a new kind of identity⁴, but has instead been instrumental in raising awareness that identities were more multiple, culturally contingent and contextual than had previously been fully appreciated².

People can also control their online identities, for example by using avatars to represent their identities online, and project themselves in ways of their choosing (see Figure 3.4). There has been a general trend away from 'fantasy' identities, such as those used in multiplayer games³, with more people using online identities that are fairly accurate representations of themselves¹⁰³, as seen in Figure 3.4 with Kimberly Rufer-Bach and her avatar 'Kim Anubis'. However manipulation of online identities can be an effective tool, as seen with Choi Seang Rak and his avatar 'Uroo Ahs' (Figure 3.4).

Figure 3.4: People and their online avatars.

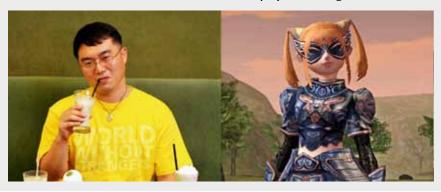
Photographs of people alongside their online avatars with details of each person and edited highlights of interviews with them, illustrating how people can use avatars to represent themselves accurately or can choose be seen as someone else. For a disabled person, an avatar can enable them to interact online without being judged by their appearance.

Name: Choi Seang Rak

Born: 1971

Occupation: Academic Location: Seoul, South Korea Average hours per week in-game: 8

Avatar name: Uroo Ahs Avatar created: 2004 Game played: Lineage II



"I'm a professor. I teach economics and public policy at the Dongguk University in Seoul...My teaching duties don't leave me much time to play but my avatar is logged in 24 hours a day, seven days a week. She sits in the marketplace, buying and selling items while I'm away at work...People buy more from my little girl dwarf compared to the old male dwarf I used to have, even though they sell the same things. Because I'm very polite, people think I really am a little girl."

Name: Kimberly Rufer-Bach

Born: 1966

Occupation: Software developer Location: San José, California, USA Game played: Second Life

Average hours per week in-game: 70 "I'm forty years old and have two cats **Avatar name:** Kim Anubis

Avatar created: 2004



and five computers...Most of the time my avatar looks like my real self, but about twenty years younger. I'm jealous of some of her clothes. I made a pair of boots that I wish I could export into real life. I usually dress my avatar in the same sort of stuff I wear. She doesn't have a separate persona or anything. She's just an extension of myself in this virtual space."

Name: Jason Rowe **Born**: 1975

Occupation: None

Location: Crosby, Texas, USA

Average hours per week in-game: 80 Avatar name: Rurouni Kenshin

Avatar created: 2003

Game played: Star Wars Galaxies



"The difference between me and my online character is pretty obvious. I have a lot of physical disabilities in real life, but in Star Wars Galaxies I can ride an Imperial speeder bike, fight monsters, or just hang out with friends at a bar... I play online games because I get to interact with people. The computer screen is my window to the world. Online it doesn't matter what you look like. Virtual worlds bring people together - everyone is on common ground. In the real world, people can be uncomfortable around me before they get to know me and realize that, apart from my outer appearance, I'm just like them."

Source: Robbie Cooper, Alter Ego: Avatars and their creators 104. Edited by Foresight.

One of the most significant observations of the impact of online identities is that some individuals feel they have only achieved their 'true' identity for first time online¹⁰⁵. For example, for individuals with various forms of disability¹⁰⁶, such as autism and muscular dystrophy, being online or having an avatar can be the first time the person feels they are seen by others as a 'normal' human being². In Figure 3.4, the interview with Jason Rowe contrasts his disability with his superhero avatar Rurouni Kenshin, showing how gaming online enables Jason to socialise on an equal footing with others. The internet can allow many types of people to realise their identities more fully; for example, some people who have been shy or lonely or feel less attractive discover they can socialise more successfully and express themselves more freely online². This may be one of the main ways in which online identities can transform offline identities.

The internet makes it possible to create fake online identities¹⁰⁷, but these are often over-hyped by the media². Social media sites do outlaw any deliberate deception as part of their terms and conditions, and they are also self-regulating to some extent, in that individuals are likely to connect to acquaintances and friends that they also know offline³. Fake identities may be less common than is often assumed¹⁹. Facebook recently revealed that it had 83 million fake accounts, 8.7% of the total, but the majority were considered to be duplicates or misclassified rather than 'undesirable' accounts, which made up only 1.5% of the total¹⁰⁸. Some fake accounts may be created for perfectly legitimate reasons, such as individuals seeking anonymity to protect themselves from unwanted intrusion, to divide their work and social lives, or because they are required to have a unique username¹⁰⁹. This does not mean that they are pretending to be a different person, or necessarily have any criminal intentions¹¹⁰. Of course, fake identities can also be created in order to perpetrate a crime¹¹¹. However, over the next 10 years, technologies including facial recognition and other means of tracking digital 'footprints' may reduce the potential for fake identities to remain undiscovered. Some platforms now routinely link information, for example cross-posting content between social media accounts, so that inconsistencies may be more easily identified¹. Possible developments in cybercrime are discussed in more detail in Section 3.2.4 below.

3.2.2 Social media

Social media differs from traditional communications technologies in that, being online, it allows users to create, share, consume, and collaborate on content in new ways³. The use of online social media has surged in recent years, becoming a majority activity since 2009⁹³. Usage was initially spurred by young people but social media is now used by most people in the UK. In 2011, 60% of internet users in the UK were members of a social network site, an increase of 43% from 2007⁹³. Over the next 10 years, the nature of online platforms can be expected to change radically². Control of online identities will become increasingly important and will highlight issues such as the ownership and use of personal content and privacy.

Evidence shows that younger people between the ages of 8 and 18 are generally less concerned with their privacy than older people and are more willing to share information online¹¹². However, their levels of awareness of online security and the potential risks of sharing personal information, its longevity on the internet, and who might access it, are variable. The rules governing the possession of digital information are dramatically different from those of offline possession¹¹³. For example, once an image has been posted online, it could be retained by the website (depending on its terms and conditions) or others could reproduce, share, adapt or use it in ways which could be unwelcome to the original owner¹. An online personal history cannot be completely erased but serves as a permanent autobiography. This means that care needs to be taken when sharing personal information online, with an awareness of how that information may be retained or used by others, including in the future.

Social networking websites have been associated with a loss of anonymity and also perceived as a threat to privacy. People's apparent willingness to disclose information in exchange for access to services (for example social network sites, free Wi-Fi, coupons) combined with the financial value to be gained from exploiting customer data (such as mobile phone providers developing data analytics) leads people to cede control over what happens to their data online more readily than in the past. Even people who do not choose to have an online presence may be identified online, for example through 'tagging' in photos online. This trend can be

expected to continue over the next 10 years³. The implications are that people may no longer be the primary creators of their own online identities, with implications for their offline identities, as online and offline identities are converging⁴.

It is hard to predict precisely how social media might develop over the next 10 years, as the internet changes rapidly and people's preferred websites alter. There may be more political activism using social media ('clicktivism'²), as these networks become more influential in 'spreading the message' and allowing instant feedback and commentary. Social media can facilitate political movements. In some cases this usage has been thought to be very influential, for example in the revolution in Tunisia in 2011 and in mobilising dissent in Egypt and Libya, or at the very least has raised the international profile of these events. However, some dispute the extent of its influence in these examples¹¹⁴.

Social media can facilitate links between like-minded individuals to create niche communities of interest, which could be benign or malign², and may reinforce existing behaviours, normalise minority identities, and broaden choices⁴. The persistence of digital data will also have implications as young people grow into adulthood, seek employment and progress in their careers³, because information could become potentially available to unintended audiences. Social media sites can conflate work and social identities within the same online space and lead to information leaking from one sphere to another. The scenarios developed for this Report explore this issue using the example of Esther, who finds that information available about her has had consequences in the workplace (Box 3.4: Esther 2014).

Box 3.4: Esther 2014

These scenarios illustrate how drivers of change may affect individuals in different contexts



During 2014, a series of events lead to Esther deciding to move to Scotland. Although her employer in Leeds encouraged working from home for senior staff during the London 2012 Olympics, Esther's role requires her to remain based in the office and she finds the daily commute into Leeds city centre tiring. She applies for promotion at the bank but is unsuccessful. A colleague tells her that this was because a manager had checked her online presence and discovered some drunken photos of Esther from her university days which her friends had posted and tagged her in. Frustrated with her situation, Esther decides to pursue her interest in art history and enrols on a postgraduate course beginning in autumn 2014. She leaves her parents' home and moves to Glasgow, an emerging hub for art and culture, to study, hoping to pursue her ambition of becoming a professional artist.

3.2.3 'Big data'

Over the next 10 years it is likely that the ability to aggregate and 'mine' large data sets will become even more widely used for a variety of purposes, for example to gain a better understanding of consumer preferences, and to provide more personalised products and services¹¹⁵. Individual preferences and behaviours are already being used to market corresponding products and services, even in real time, and to incorporate location-based information. This type of personalisation captures behavioural information from everyday transactions and builds them into an overall consumer profile⁴. These systems can be automated, drawing data directly from machines such as smart meters and tags, and can handle very large amounts of data.

Governments may be able to utilise 'big data' to provide improved public services by sharing information, but public responses to this possibility are mixed. The 2010 Joseph Rowntree Reform Trust State of the Nation Survey asked people for their perceptions of government use of data sets. Its results showed that 65% thought that government proposals to collect and store information are either a 'Bad' or 'Very bad' idea, while a total of 83% were against allowing the government to access phone, email and browsing records¹¹⁶ (see Table 3.2). Using 'big data' is also a logistical and technical challenge, because the vast quantity of content on the internet means locating relevant information and verifying its accuracy become problematic.

Table 3.2: Joseph Rowntree Reform Trust State of the Nation Survey results from the question 'From what you have seen or heard do you think the following government proposals for handling personal information are a good or bad idea?'.

		Very good idea	Good idea	Bad idea	Very bad idea	Don't know
Collecting information about citizens and storing it on large computer systems which can then be used for a wide range of purposes and shared between different parts of government	%	6	22	31	34	7
Holding all your medical records on a centralised computer system, rather than under the control of your GP or hospital	%	13	26	26	29	6
Allowing the government to be able access your phone, email and internet browsing records wherever they are held	%	3	9	28	55	5

Source: Joseph Rowntree Reform Trust¹¹⁶.

Increased use of mobile technology, such as smart-phones and tablets, allows social media 'rich' information to be linked with spatial tracking and even facial recognition technologies, and for people's locations, preferences and personal information to be broadcast to others. This means that, increasingly, people will be able to draw on personal information about a stranger in a public place, over time changing the nature of what it will mean to be anonymous in public spaces³. Some apps now offer the possibility of using a smart-phone to photograph individuals and access online public profiles in real time⁴.

The proliferation, synthesis, and exploitation of 'big data' sets by the private sector raises questions over who 'owns' and can access the data, with implications for personal privacy and liberty¹. Individuals will be more easily identified through triangulating data from multiple anonymised data sets, each giving an additional piece of information, potentially reducing privacy. Digital information is already a commodity which can be traded, sometimes without the consent or even knowledge of the individual. The growing value of digital information has started to attract increasing criminal attention, such as for use in identity fraud¹⁹, while there are concerns over private sector use or misuse of this data. This could cause some people to withdraw from the digital environment, or reduce their trust in online transactions, as the scenario for Esther shows (Box 3.5: Esther 2016).

Box 3.5: Esther 2016

These scenarios illustrate how drivers of change may affect individuals in different contexts



Around 2016, a series of high profile cases of large-scale data leaking, theft, and misuse brings data protection issues to the fore and the media begin to run a series of high-profile national stories highlighting the security concerns. A major law suit against a private sector company over their perceived misuse of personal data follows. Many people seek to reclaim control of their personal data, with an online protest movement campaigning for greater online privacy gaining a large following. An early success for them is the strict regulation of electrical 'smart meters'. These issues affect Esther's parents directly, as they become victims of identity theft and their details are used to forge a fake driving licence. Esther initially reacts by removing her details from online sites, but over time she misses her online social interactions and feels the need to be connected to the internet to build her reputation as an artist and to sell her work online, and so rejoins. However she is now cautious about sharing personal information and carefully manages her online identity.

3.2.4 Cybercrime

There is a distinction to be made between a traditional type of crime that is now committed using a computer, and a crime wholly enabled by the internet. 'Identity theft' is used to refer to a range of criminal behaviours; for example, whether what is stolen is an 'identifier' (such as a reference number is or a PIN) or information that enables someone to impersonate another²⁰. The theft of aspects of someone's identity can be used for a range of criminal purposes, from gaining a false passport to committing fraud. Identity fraud uses personal information about a victim's personal or organisational identity to exploit existing trust in their identity, or to pretend to be that person to obtain resources fraudulently from another organisation. To gain access to the victim, criminals also often exploit the social capital invested in the trusted identities of individuals, groups or organisations to deceive others, typically pretending to be someone else to perpetrate a scam, for example through 'cold calling'²⁰.

Because so much personal, consumer, and financial information is now online, the internet has become a valuable resource for criminal behaviour enabling identity theft, fraud, and the facilitation of terrorism¹¹⁷. Technology has enabled a range of new methods to achieve fraud at a global level. These include phishing, pharming, Domain Name System (DNS) poisoning (attacks on a domain name, for example to insert a fake address record) and spoof emails that contain links to bogus websites, or which install spyware to log keystrokes or seek out financial information stored on the computer's hard drive. More recent developments exploit the new converged mobile technologies, such as 'smishing', which involves sending victims SMS text messages that, as in the original phishing emails, seek to obtain 'important security information'. Finally, there is 'vishing', which exploits VOIP (voice over internet protocol) in the same way. Victims are tricked into ringing back the number given or logging onto a web address given in the message²⁰.

Although it is extremely difficult to quantify the cost or incidence of cybercrime¹¹⁸, a 2010 Eurostat ICT survey of online usage and concerns over internet crime across all 27 EU countries showed that 80% of the UK's population used the internet regularly (at least once a week) and 66% frequently (every day or almost every day)¹¹⁹. When the survey looked at self-reported actual experience of cybercrime over the previous 12 months among internet users, the UK broadly matches the EU average for virus infections, privacy violations, and spam (54% of those surveyed in the UK had received spam emails); however the UK ranked second out of 27 (behind Latvia) for experiences of financial losses caused by phishing and pharming attacks and payment card fraud, affecting 7% of the UK's online population¹¹⁹.

Cybercrime has both direct and indirect costs, affecting millions of individuals, the private sector, and the government^{1–20}. Banks, business and organisations spend substantial sums each year responding to fraud, repairing losses, and trying to prevent identity fraud. However it is important that the occurrence of cybercrime and identity-related crime is not overstated¹⁹. The Scottish Crime and Justice Survey showed that many more people fear becoming a victim of identity crime than actually experience it¹²¹. However fear of crime itself can have an impact on an individual's sense of safety and consequent behaviour. Identity theft is more than simply a manifestation of crime, because it uses part of an individual's sense of self and so is particularly disruptive and invasive for a victim.

Creating false identities can be a component of cybercrime, for example to perpetrate a fraud, conduct espionage, or evade capture. Creating a false identity, or stealing another person's identity ('identity theft'), is often achieved through obtaining key personal information such as PINs, addresses and passwords that enable a person to verify their identity for organisations such as their bank. This means that the distinction between a person's 'identity' (in terms of their overall coherent sense of self) and the identification used to distinguish between people online is being increasingly blurred in practice, as identifiers become proxies for 'real' identities.

Someone attempting to conceal themself or cover their tracks over a long period of time could seek to obtain some kind of false identity documentation to support their false identity. The internet can help people to obtain fake documentation, for example by providing access to the personal details of individuals and to other relevant information which could assist in identity theft¹²². Another method is to try and acquire genuine documentation under an assumed identity, as a false identity which is based on genuine identity documents is difficult to detect¹⁹. Increasing global migration suggests there may be a rise in incidents of fraudulently obtained identity documents being unwittingly accepted as genuine, and in difficulties in verifying identity documentations issued by other countries. If online identities become more securely validated, there is the prospect that these 'offline' options will be at a greater premium to criminals. New technology such as mining large data sets, cross-referencing a range of personal and other information, or tracking inconsistencies in online behaviour, for example, may be able to detect fraudulent online identities in some cases, but a false identity might also be uncovered through family and social networks¹²³.

Over the next 10 years, as the distinction between online and offline identities diminishes, criminals are likely to try to exploit the many new forms of interlinked data relating to people's identities from social media and from financial and professional websites, in order to construct fake identities or steal real identities which could withstand more sophisticated interrogation. Ultimately, stealing sufficient information could enable criminals to effectively take over their victims' online identities¹⁹. Reputation will therefore become increasingly important for building trust between individuals online, in an environment where instances of blackmail and extortion have the potential to rise over the next 10 years as people threaten to reveal personal information and destroy reputations.

While it may become more difficult to fabricate new identities in future¹⁹, because the chances for discovery through social media networks, facial recognition technology, and 'big data' analytics will be higher, there is a technological inevitability that as one form of crime is brought under control, new forms of identity theft and fraud will develop to take their place. Identity-related crimes will never be eradicated, but they can be managed by using various prevention and detection strategies¹¹⁸.

3.2.5 Biomedical technologies

In the next 10 years, it is likely that there will be advances in the development of biomedical technologies which may extend the boundaries of how people perceive themselves and others, and may therefore affect their identities¹. Interventions to slow the effects of ageing and improve quality of life for the elderly, drugs to improve memory and cognition¹²⁴, developments in reproductive technologies, cloning, animal/human organ transplants, and genetic modification are also likely to have implications for identities¹²⁵.

Some of these developments may challenge notions of what it is to be human, as interfaces between humans and machines are also being explored in new ways. One example is neuroprosthetic devices, such as retinal implants to restore vision. Computers are also being developed that can track movements of users' bodies and eyes and react accordingly, without specific commands having to be given. Prostheses in the form of artificial extensions to limbs can now be electronically operated, and can incorporate new mechanical designs such as the running blades used in the London 2012 Paralympics. A few scientists have experimented with implanting computer chips into their bodies to control devices and their 'smart' environment. In one example, a scientist infected his biochip with a computer virus to demonstrate the ability to foil security systems¹²⁶. Robotics and artificial intelligence may go even further in blurring the lines between human and machine.

Technologies are being developed in the neurosciences and in forensic science which have the potential to impinge on people's identities and individual privacy. These aim to increase our understanding of the human brain and to interpret patterns of thinking. Some are proving controversial, such as 'brain fingerprinting', which uses electroencephalography (EEG) as a method of lie detection¹²⁷. This technology measures electrical brainwave responses to words or pictures presented on a computer screen with a view to seeing what is recognised and potentially to detect a person who might be lying¹²⁸ although there is scepticism about whether this technique reliably measures what is claimed¹³⁰. If these technologies become more reliable and accepted in courts as evidence, there are implications for personal identities as thoughts and intentions may no longer be private.

Summary

Technological trends could be transformative for some aspects of identities over the next decade. Already the distinction between offline and online identities is becoming irrelevant as the digital divide recedes. Over the next 10 years the take-up of social media is likely to increase even further, and this will enable people to express different aspects of their identities. However, maintaining an online presence could become normalised to the point where refusing to participate in online media could appear unusual or even suspicious. People may also find increasingly that their online identities are created or mediated by others.

The persistence and availability of data on the internet means that social and biographical identities will become synthesised to a much greater degree across social and professional spheres. Private lives are likely to become more public, especially among younger people who have a more open attitude to their personal privacy. Aspects of online identities are being 'fixed' in time and could be available to unintended audiences, with potential consequences for future lives and careers.

3.3 Economic drivers

3.3.1 Consumerism

A consumer society considers consumption a route to personal happiness and enjoyment of life¹³¹, and products and services therefore become part of the construction and expression of identities and status¹¹. Identities can be expressed through many types of consumption. Consumption and investments are not just economic decisions, but become social and political decisions invested with moral significance¹³², so for example being able to verify the ethical practices of a business serves as a basis of trust towards a brand identity¹¹.

Choices over food and drink are one way in which some people express their identities, as in the case of vegans, consumers of organic produce, and dieters who conform to a particular diet plan¹³³. In 2007, research into friendship groups among 18–25 year olds found that alcohol consumption was an important element in the construction of young people's social lives and their friendship groups, where drinking was a form of performance that carried its own pleasures, excitement, risks and anxieties, and through which a range of possible selves could be acted out¹³⁴.

Consumerism is therefore an important way in which identities are explored and projected to others. A consumer society also leads to a close interrelationship between expressing identities through material culture, and the manipulation of identities by branding and advertising aimed towards particular groups, such as marketing to teenagers¹³⁵.

The prolonged economic crisis and growing socio-economic inequality is likely to stimulate the emergence of new alternative anti-consumerist movements, some with global resonances, such as the Occupy movement¹³⁶, whose antagonism towards the very wealthy elite may become more widespread¹². Overall, their impact on wider society is likely to remain modest over the next decade⁷. However, growing awareness of social and economic inequalities will create insecurity and uncertainty, and could ultimately lead to a tipping point where class identities strengthen and become more politicised. The scenarios developed for this Report explore this trend through the example of Dylan, suggesting that in his case wider social unrest has little impact compared to pressing local issues and his Welsh identity (see Box 3.6: Dylan 2016).

Box 3.6: Dylan 2016

These scenarios illustrate how drivers of change may affect individuals in different contexts



In 2016 there are small-scale riots in Cardiff over cuts to services and welfare provision. Although Dylan did not participate, thinking mistakenly that the rioters were primarily immigrants receiving more than their fair share, the issue of cuts, and in particular the closure of his local hospital, remained very important to him. He is concerned about his elderly mother's deteriorating condition, as well as his wife's and his own growing health concerns. His back has been hurting a lot lately and he has had to take a number of sick days off from work due to back pain. Politically, Dylan is unsympathetic towards the Welsh nationalists, who had risen to prominence, as he had always been an ardent Welsh Labour supporter. He is critical of UK economic policy and longs for the return of local traditional industries.

3.3.2 Economic downturn

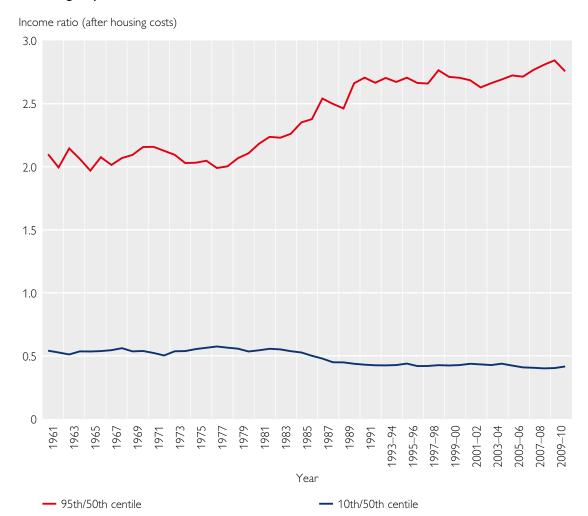
Changes in the economic climate over the next 10 years may be expected to have a major impact on socio-economic categories, or class status⁷. However it is difficult to measure the effect of socio-economic trends in past decades on identities¹³⁷, so projecting the effect over the next 10 years is equally problematic. While class structures in Britain have often been viewed as having become less important over the past 40 years¹³⁸, analysis of the trends shown in the British Election Surveys since 1974 compared with the 2005 British Social Attitudes Survey suggest there has been relative stability. In 1974, 35% of people surveyed (sample size 2,329) said they were middle class, 63% working class, and 4% did not identify with any class; while in 2005, 37% of respondents said they were middle class, 57% working class, and 6% did not identify with any class¹³⁹. The main change since the 1970s may therefore be a decline in the number of people considering themselves 'working class', perhaps to be expected given rising incomes over this period and changes to the labour market. Thanks to wider social changes, class identities are no longer seen as ascribed from birth, but instead describe an individual's view of themself based on personal history, mobility between class positions, and cultural stereotypes¹⁴⁰. Class, as such, may therefore no longer be linked to economic position as strongly as was the case in the past. Many people in the UK now see themselves as middle income¹², and share a group identity with the hard-working masses, or the 'squeezed middle,' even if that does not accurately reflect their income relative to the average.

The economic downturn may have repercussions for identities in terms of financial status, potentially giving rise to greater social and economic polarisation between the 'haves' and 'have-nots'. There has been a widely observed trend that the incomes and assets of the UK's very wealthy have grown much more rapidly than those of the rest of the working population. Analysis of different income groups shows that since the late 1970s, the top 10% have increased their income share by half, with the top 1% doubling and the top 0.1% tripling their shares¹⁴¹. Figure 3.5 shows the trend in income inequality over the past four decades for the 95th income centile compared with the 10th centile, showing how the gap between richer and poorer groups has widened. Income inequality increased during the 1980s, during a period of economic growth, and broadly levelled off at a higher level of income inequality, a pattern reflected in analyses using the Gini coefficient^{vi}, a widely used measure of income inequality¹⁴².

Spatial inequalities in income and wealth have also grown markedly since the 1970s: average incomes are lower in the North, the Midlands and some parts of Wales and in the poorer areas of large cities¹⁴⁴ and poverty (defined as earning less than 60% of median income¹⁴⁵) has become increasingly concentrated in these areas¹⁴⁶. The rising costs of living – energy, fuel, housing, and food costs – affect everyone, but fall disproportionately on low-income households.

vi The Gini coefficient is used to show the degree of income inequality between different groups of households in the population, by condensing the entire income distribution into a single number between 0 and 1. The lower its value, the more equally household income is distributed.

Figure 3.5: Income after housing costs for very high and low earners compared with the median 50th centile income group.



Note: Family Expenditure Survey up to and including 1992, then Family Resources Survey to 2009/10.

Source: Institute for Fiscal Studies¹⁴³.

Research on inequality in different countries shows that more unequal societies are less integrated, have lower levels of trust¹⁴⁷, and have higher levels of crime, disorder and protest¹⁴⁸. The economic downturn will tend to make divisions in living standards and in opportunities more obvious¹² and this may foster resentment, as some people become more excluded. This in turn would lead to lower levels of civic participation and engagement. Poorer people could feel abandoned or victimised by the state, and have a growing sense of alienation from mainstream society which, in turn, may become less sympathetic to the poor and unemployed¹². It is likely that the alienation that some people in the UK feel towards the EU may grow, while social unrest, heightened xenophobia and prejudice towards immigrants by some groups is likely to increase¹¹. Marginalisation could produce social unrest, while tensions between underprivileged groups and the police can create potentially violent disorder¹⁰, as occurred during the UK riots in August 2011¹⁸. Inequality is likely to continue to present important challenges for policy makers by undermining social integration and social mobility¹⁴⁸ ¹⁴⁹ ¹⁵⁰. Policies which support inclusion and rebuild social capital¹¹, emphasise fairness, and avoid widening group differences, will continue to be important in mitigating potentially negative outcomes.

Since at least 1990, there has been in the UK a pattern of continuing decline in employment for skilled and semi-skilled manual roles, including skilled trade occupations and process, plant and machinery operatives, while there has been growth in higher skilled professional occupations. These trends are projected to continue to at least 2020¹⁵¹. According to an EU-wide public opinion survey on citizenship and belonging, work was rated as one of the three most important elements of 39% of EU citizens' lives¹⁵². As a large part of people's lives are spent working, careers affect both the ability of people to make choices and their self-esteem. The modern importance of work and career can explain much of human need for recognition, and can become a crucial part of an individual's identity¹⁵³. While the majority of people who kept their jobs in the recent recession may benefit as the economic recovery gets underway in the next few years, there is a real risk that people who lost their jobs may experience long-term effects, with important implications for their identities and sense of social inclusion¹¹. They may suffer career, health, and psychological consequences which make them feel more alienated, disadvantaged, or disengaged. People can feel included or excluded from groups according to their status and their economic place in society, through employment, access to networks, and opportunities. In the scenarios developed for this Report, Esther's experiences reflect these anxieties (see Box 3.7: Esther 2019).

Box 3.7: Esther 2019

These scenarios illustrate how drivers of change may affect individuals in different contexts



By 2019, the economy is growing again and there are more jobs around. However, despite the economic turnaround, Esther, having completed her postgraduate qualification, remains burdened with debt. Although she had part-funded her study through poorly paid temporary jobs when she first moved to Glasgow, she still has university debts and dreams of saving for a deposit to buy a flat seem a long way off. Now aged 30, and living with a partner, Esther dreams of a comfortable life, one where they don't have to watch every penny. She might have thought about having children but can't see how they can afford to. She worries about her parents getting older and she finds it a challenge to keep in regular contact with them. Her own life is busy with work, friends and her partner, and when her parents send her text messages, she means to reply but often forgets.

The unequal impact of the recession (and unequal recovery from the recession) may have implications for constitutional preferences in Wales and Scotland. The perception that England has suffered less from the recession than other nations may increase the likelihood of demands for greater independence. The major challenge will be to ensure that the austerity measures are not perceived to affect some areas more deeply than others. One risk is that perceptions may depend on what is seen to be occurring in London, the seat of government, rather than in the UK as a whole⁸. It will continue to be important for the economic benefits of recovery to be spread fairly around the UK, and across generations.

Summary

Over the next decade economic trends will have a considerable impact on people's identities, while the broader effects may also have indirect impacts. Consumerism is an important way in which people currently express their identity. If current trends continue, the effects of the economic downturn in the UK may increase pressures on many people, threatening aspects of their identities relating to, for example, their financial and employment status. Income inequality in the UK increased during the 1980s, and in the future economic growth will occur more quickly for some than for others; this has the potential to create the conditions for further instances of social unrest. The recession may have long-term effects for those who lost their jobs or were unable to find work, in both their careers and their health.

3.4 Environmental drivers

3.4.1 Place attachment

People have strong attachments to places (local, regional and national) which become part of who they are, and where they feel comfortable and relaxed, and able to be themselves. For example, an individual may describe themselves as 'a local person'. This can be said to be 'place attachment'. Evidence suggests that people with strong attachment to place express higher life satisfaction than those with weak place attachment. People's attachments to particular places are rooted in a sense of security and belonging¹⁵⁴. Even in a globalised, modern, urbanised society, this sense of attachment is no less important¹⁵⁵. People can have many attachments to different places¹⁵⁷.

The Report noted earlier how the distinction between online and offline identities is receding. This means that some people also become part of 'virtual' communities¹⁵⁸, or communities of interest, rather than their neighbourhoods¹⁵⁹, and so feel less attachment to their physical locality¹⁶⁰. However, the physical environment remains important to many people and groups, and this is unlikely to change substantially in the next 10 years. New opportunities will emerge from the 'intelligent' or smart environment (a place that has been enriched with technologies such as sensors and other networked devices to enhance the services that it can provide to humans¹⁶¹), which may lead to even closer identity relationships with place³.

A significant driver of change for place identities is likely to be the various energy transitions needed to move UK society towards a low-carbon economy while also maintaining energy security¹⁶². This will continue to pose considerable challenges including those of changing consumer behaviour to reduce energy consumption, and building new infrastructure, which could affect people's attachment to place. The Government's Renewable Energy Directive sets a target for the UK to achieve 15% of its energy consumption from renewable sources by 2020, compared with 3% in 2009¹⁶³. New and upgraded infrastructure will be needed to move the UK towards a low-carbon economy, which could pose a threat to valued local places, communities and landscapes¹⁶⁴. In the context of large infrastructure developments, some environmentally related identities may be strengthened by the presence or prospect of new energy facilities, while others will be severely undermined¹⁷. People are willing to protect places that form part of their identities¹⁶⁵, so changes to valued places, such as natural landscapes, can lead to local communities mobilising themselves in opposition, and even to broader social protest.

3.4.2 The built environment

Environmental and place-based changes in the UK over the next 10 years may have a considerable impact on notions of identity. Some environments, especially green spaces, have been found to be 'restorative', providing an increased sense of wellbeing¹⁶⁶. It is estimated that each year well over half the UK population, 33 million people, make more than 2.5 billion visits to urban green spaces alone¹⁶⁷. However access to green spaces, especially in urban environments, can be limited for some groups of people. Areas where 40% of the population are from Black and minority ethnic groups, compared to areas where just 2% are from such groups¹⁶⁸. Changes in these environments can be expected to have negative impacts on place identities and wellbeing⁶.

The connection between identities and place is also potentially significant for community engagement and citizenship¹⁵⁹. Public spaces, for example, are open to all, regardless of ethnic origin, age or gender. These spaces influence the cultural identity of an area, are part of its unique character and provide a sense of place for local communities¹⁶⁹. Changes to the built environment can therefore be expected to have both positive and negative impacts on place identities and wellbeing⁶⁻¹⁰.

The quality, quantity and affordability of housing are crucial factors in people's place attachment to their homes, their sense of belonging, and their sense of attachment to local places. However recent trends in the UK have shown house prices rising beyond the reach of many and declining provision of social housing. This has led to a segmentation of the housing system between owner-occupiers and rental markets, and between different regions¹⁷⁰. The number of owner-occupied households has continued to decrease, from the peak of 14.8 million in 2005 to 14.5 million in 2011, while during the same period the number of private rented households rose to 3.6 million in 2011 from 2.5 million in 2005¹⁷⁰. In 2011 the percentage of tenants in the social housing sector was highest in London and the North East¹⁷⁰, where disadvantaged households are often living alongside wealthier areas.

The problems of deprived areas can also have impact on people's identities. The 2010/11 English Housing Survey Household Report showed that households living in poverty are more likely to live in homes that have significant outstanding repairs and damp problems than more affluent households, in both the private and social housing sectors¹⁷⁰. Housing and neighbourhood conditions also influence the residential location decisions of those with a choice about where to live¹⁷¹, suggesting that those with sufficient finance will seek out more affluent areas. Recent research modelled the effects of three of the Government's proposed changes to Local Housing Allowance rates in London, suggesting that low-income private tenants will be less likely to be able to secure accommodation in some more affluent areas¹⁷², forcing this section of society to cheaper parts of the outer and peripheral areas of London. These areas have relatively high rates of deprivation and unemployment. This suggests that people's sense of belonging and 'place identities' will be influenced at least to some extent by the broader environment and circumstances in which they live.

Segregation can also be undertaken deliberately, to form 'safe' areas, like-minded communities, or to exclude undesirables. Places such as some shopping malls and gated communities are part of a trend towards privatising spaces. It is estimated that there are around 1,000 gated communities in England¹⁷³, principally retirement communities, reflecting the ageing population trend and the decline in extended family support networks¹⁷⁴. While not a new phenomenon, they are a physical manifestation of increased (and increasing) social inequality. They could be perceived as a 'force for exclusion'¹⁷³ and can also signal the privatising of space that was once in the public realm¹⁷⁴. It could be argued that this increasing segregation of social classes could reduce empathy for inequality and social problems¹⁷³. Gated communities are often protected with networks of closed-circuit television (CCTV) surveillance or other security provision, which enforce a use of previously public space dominated by individual interests rather than the civic good, where those judged to be unacceptable are excluded¹⁷⁵ ¹⁷⁶. A gated community may have a strong sense of community identity, but potentially at the cost of wider social exclusion.

3.4.3 Environmental change and risk

This section briefly considers the impact on people's identities arising from mitigation of environmental changes such as flooding, heat waves and droughts⁶ (see Table 3.3). The first UK Climate Change Risk Assessment (CCRA) published in 2012 identifies some of the most important risks and opportunities that climate change may present to the UK, showing that the UK is already vulnerable to extreme weather, including flooding and heat waves, while flood risk is projected to increase significantly across the UK over the next decades¹⁷⁷. The impact of increased temperatures is a key issue for the longer-term. In the UK in particular, there is a strong perception that this is a cold, wet climate, and a concomitant reluctance to address any need for protection against alternative extremes of weather such as heat waves and drought¹⁷⁸. Some research suggests that resilience among older people ('coping' rather than complaining) could lead to the denial of excessive heat as a risk, with potentially adverse consequences⁶. So while many of these changes will occur over a much longer period than is considered in this report, behaviours will need to start to change now to avoid the most serious impacts⁶.

Table 3.3: Scenarios for UK Climate Projections: middle estimate.

Impact to	2010 baseline	Consequence	Confidence
Mental health due to effect of floods/storms	3,500–4,500 people in England and Wales suffer a mental health effect due to flooding each year – this is 30–40% of those who are flooded each year.	The numbers of additional people in England and Wales affected per year according to this metric are estimated to be 3,000–4,000 by 2020s, 4,000–7,000 by the 2050s and 5,000–8,000 by the 2080s.	Medium
		The high number estimated for 2020s is due in part to the considerable number of properties, particularly in regions around the River Humber, where a small change in risk may result in a noticeable change in risk of flooding.	
Summer mortality due to higher temperatures	Approximately 1,100 premature deaths in the UK due to higher temperatures.	Results from the CCRA indicate an increase for the medium emissions central estimate of approximately 60% in heat-related mortality in the near-term (2020s), with an approximate 200% increase in the medium-term (2050s).	High
Summer morbidity due to higher temperatures	Estimate of approximately 100,000 hospital admissions due to heat each year:	This is likely to result in an approximate 60% increase in heat-related morbidity in the nearterm (2020s), with an approximate 200% increase in the medium-term (2050s), based on central estimates for the medium emissions scenario.	High
Vulnerable people at significant risk of flooding (vulnerability is assessed using the index of multiple deprivation)	Estimate of approximately 70,000 of the properties in the 'most deprived' areas are currently at significant risk of flooding.	A twofold (~1.5 to 2.8 times) increase in the number of properties at risk for the 2020s is predicted.	Medium
Number of people at significant risk of tidal or river flooding	Estimated number of people at significant likelihood of flooding currently is 900,000 in the UK.	It is projected to range from about 1.1 to 2 million in the 2020s, rising to 1.7 to 2.6 million by the 2050s.	High
Extreme weather event (flooding and storms) mortality	Approximately 18 flood-related deaths per year.	The overall findings suggest an increase in fatalities of approximately 70% by the 2020s, with a 120% increase by the 2050s (central estimates of the medium emissions scenario).	Medium

Note: This does not include surface water flooding.

Source: Twigger-Ross, C. (2013)⁶ adapted from UK Climate Change Risk Assessment Evidence Report, 2012, Defra¹⁷⁹.

Disruptions to the environment also have implications for psychological security and can be an important factor for identities and behaviours. Flooding is a major concern which affects people's lives, mental health and wellbeing, homes and identities. In 2007, flooding cost the economy more than £3 billion in England alone, while in 2009, the Cumbria floods resulted in £100s of millions of damage, including the loss of 20 road bridges and long-term disruption for local communities 177 . Mitigation of environmental changes such as flooding, heat waves and droughts can also affect people's identities 6 , for example when communities at high risk of floods are relocated 180 . While many may be exposed to such risks, some are better able to protect themselves and their property than others, who are likely to become increasingly vulnerable and reliant upon external support (from local and national government) during a period of financial constraint. The location of specific vulnerable groups in areas at risk (for example, of flooding) means that a clear understanding of people's identities will be an important factor for the development of resilient communities.

Overall perceptions of the risks arising from these climate change hazards appear to be fairly low¹⁸¹. Few people consider themselves at risk of flooding, while rising temperatures are considered benign (or even pleasant). Awareness of heat stress is very low among vulnerable groups. People's identities may develop to become more resilient to environmental change and risk, and society may plan better for emergencies, but that is likely to take time¹⁸². For example, research into flooding suggests that behaviours to protect against flooding do not develop quickly⁶. Increasingly consideration is being given to the complex ethical, social and behavioural aspects of climate change¹⁸³. The scenarios developed for this Report explore some of the potential impacts of environmental disruption through the example of Dylan (Box 3.8: Dylan 2019).

Box 3.8: Dylan 2019

These scenarios illustrate how drivers of change may affect individuals in different contexts



In 2019, Dylan starts drawing his pension but he carries on working regardless – partly by choice and partly due to circumstances as he has his elderly mother's care home fees to pay for. He remains reluctant to accept any financial help from his daughter, who is now living in Bristol. He does accept help from her with accessing online services, and she helped him to vote online in the local election that year. He was unable to get to the polling station in person owing to some of the worst floods in Wales for years. Having witnessed past environmental disasters such as the 1966 Aberfan disaster, Dylan has a strong environmental consciousness and is concerned by the apparent increasing frequency of flooding events. Although their own property was, fortunately, not flooded, repair work in the village meant that Dylan and his wife were without internet and phone access for some time. Although his wife was frustrated at the additional difficulties caused by this, including being unable to contact their son overseas, Dylan appreciated being away from various technological distractions and felt that there was an additional sense of community in the village as everyone helped each other out.

Summary

The strong attachments to places that many people have can be a core part of forming identities. Living and working environments affect levels of life satisfaction, health and wellbeing. The importance of the physical setting is unlikely to change radically in the decade ahead. Where people live is an important component of their identities, and so the quality, quantity and affordability of housing is a potential driver of change for identities, while living in an area of deprivation can also affect identities. Over the next decade there are likely to be changes to the environment through measures to address flooding, for example new housing development and infrastructure, which could have an impact on people's identities.

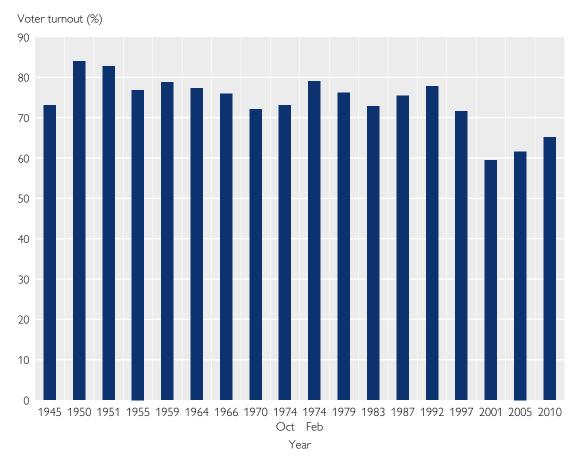
3.5 Political drivers

3.5.I Trust

In the UK there has been a long-term trend of declining trust in figures of authority, from politicians to police officers¹⁸⁴, which is likely to be linked in part to the decline of political engagement and changes in the notion of citizenship. The proportion of people who respond 'Almost never' to the question: 'How much do you trust British governments of any party to place the needs of the nation above the interests of their own political party?' increased from 11.8% in 1986 to 33.5% in 2011¹⁸⁵. Alongside this, there could be a gradual shift in the relationships between the citizen and the state over the next 10 years, as government tries to renegotiate the rights and responsibilities of citizens, for example in welfare, health, or education, where people are expected to take more responsibility and the state becomes smaller. Less reliance on the state may have a positive effect on trust and citizenship for some groups, particularly those with stronger community identities and high levels of social capital. Highly interconnected local, voluntary associations, combining with stronger local leadership able to hold politicians and the state to account, might lead to higher levels of trust in society, and perhaps also to increases in political trust¹⁸⁶. However, for some more vulnerable groups, the lack of trust in authority combined with the drive to shift responsibilities to individuals may create difficulties.

Over the past 10 years, turnout at general elections has been lower than in previous decades (Figure 3.6). There has also been a decline in affiliation with the main political parties, although this may be due in part to the perception that there are few differences between the main parties⁹. These long-term trends for reduced trust and political participation seem likely to continue¹⁴, unless circumstances change to increase political engagement.

Figure 3.6: General Election turnout since 1945.



Source: House of Commons Library 187 188 189 190.

In recent years the share of the vote going to minor parties (not the main three political parties) has been rising, although it is important to recognise that support for minor parties has very different sources. Support for the Green Party tends to be greater among younger, highly educated citizens. Older, less educated, more disadvantaged voters, or those who feel threatened by immigration (the perceived competition for jobs and the perceived threat to their identity by different value systems⁹), are more likely to support the UK Independence Party, or possibly the British National Party. While current trends suggest that support for minor parties both on the left and the right is likely to increase, the rate of change is likely to depend on the extent to which government is able to resolve issues with the economy, immigration, and the environment in ways that address citizens' current grievances. It is unlikely that there will be a 'tipping point' in the next 10 years where a minor party might gain an overall win in a general election, but minor parties and independent candidates are already being more successful, being elected as MPs and MEPs^{vii}, while coalition politics are already a reality.

Alongside the decline in trust in authority, there has been rapid growth over the past few years in surveillance and the collection of personal data by both the state and private companies¹⁹¹. While some of this surveillance may be broadly popular with citizens (such as some uses of CCTV), the range of data collected to provide online services, to support investigative efforts (such as mobile phone records) or to support consumer profiling is likely to affect the relationships between the state, citizens and commercial organisations. Pervasive surveillance may reduce the ability to build trusting relations between people, and between people, organisations, and the state. The scenarios developed for this Report consider this issue through the prism of Dylan's life, showing how in 10 years' time he could feel confused and disenchanted by all the changes which have affected him (Box 3.9: Dylan 2023).

Box 3.9: Dylan 2023

These scenarios illustrate how drivers of change may affect individuals in different contexts



By 2023, and now aged 70, Dylan feels he is having a good life overall, but not without its challenges and disappointments. It seems to him that businesses seem to know all about him now and he is confused and resentful over how they have got this private information. It seems to him that while things have really changed in the past 10 years and the world is more complicated, things have not got any better. If anything, he has had to work even harder to look after his family. Consequently, despite being a lifelong Labour supporter, he is seriously considering voting for Plaid Cymru for the first time at the next general election. Dylan is disenchanted with the outside world and concerned about his future.

The same trends have, however, increased citizens' abilities to monitor and access information about the authorities. Young people's experiences of using the internet tend to include phenomena such as peer-to-peer sharing and Open Access resources. These may be transforming the concept of democracy and may have a significant impact on political identities². Politics is being fundamentally influenced by these trends towards a model of greater openness, transparency, and shared identities. Younger people are more likely to identify with libertarian rather than authoritarian values compared with older generations¹⁹². If this group keep their values as they enter middle-age and replace older cohorts, Britain may become more libertarian as a whole¹⁴. This may be more likely if these younger people fail to benefit from social and economic structures. However, if they do become wealthier and more invested in the status quo, they may become more right-leaning as they grow older.

Trust and civic engagement are not solely dependent on citizens' attitudes towards authority, but are also embedded in the connections and associations that citizens form themselves¹⁹³, as well as the structures and mechanisms designed to constrain the actions of government and the private sector¹⁹⁴. While people no longer believe that politicians 'know what's best', there is little evidence that trust between citizens is similarly falling. Indeed, people are often more willing to trust in those they know personally¹⁹⁵.

Since 2010, the Coalition Government in the UK has implemented far reaching reforms, including a programme of public spending cuts and tax increases from 2010 to 2015. The reforms also include a restructure of state services, involving a significant transfer of responsibility from the state to the private sector and to the citizen¹⁹⁶, with the aim of creating a welfare system that rewards work, and an education system that encourages achievement and drives social mobility¹⁹⁷. People are increasingly expected to take on personal responsibility for providing for themselves and to guard against the consequences of becoming more vulnerable, for example through provision of pensions. However, for some people it may be very difficult to adopt such a future-oriented identity, in part because of the difficult economic climate and the trend towards greater social plurality, and so the extent to which people can take responsibility for themselves and plan for the future may be uneven.

3.5.2 'Britishness'

Since 1992, the percentage of people in England who thought of themselves as primarily or exclusively 'British' declined from 63%, to 39% in 2006. In Scotland, 25% of people thought of themselves as British in 1992, declining to 14% in 2006, while growing numbers of people thought of themselves as Scottish, Welsh or English (or none of these) rather than British¹⁹⁸. A strong sense of belonging to Europe as an identity remains very rare in the UK, although European identities are somewhat more common among younger people than they are among older generations¹⁶. People with 'civic' rather than 'ethnic' conceptions of national identity tend to be less hostile to Europe and to support greater European integration, and these views tend to be more

common among the young and highly educated¹⁶. Conversely, there is also evidence that the 'white working class' continue to draw on an ethnic rather than civic definition of 'Britishness'¹⁹⁹. As a consequence, inequality of opportunity for this group is attributed to the presence of minority or migrant groups rather than being viewed through upward social comparisons. This perception continues to provide fertile ground for the potential rise of far right politics in the UK and is likely to continue to do so over the next 10 years.

Trends such as globalisation, ease of travel, new technology, constitutional changes, and social and intergenerational changes may affect national identities²⁰⁰. Age seems to be a key factor. For younger people (16–24 year olds) in terms of their sense of belonging to Britain, in 2010 only 41% felt that they 'Belong very strongly' to Britain (Table 3.4). However, the older age groups exhibit steadily increasing levels of belonging, reaching 74% among respondents aged 85 or over¹⁶. As older generations are replaced by younger generations, a sense of belonging to Britain and British national identity is expected to decline over time²⁰¹ if people keep their present views.

Table 3.4: Home Office Citizenship Survey 2010 asking people to rate whether they feel they 'Belong strongly' to Britain.

2010	Belong very strongly (%)	Belong fairly strongly (%)	Do not belong strongly (%)	Base
16–24	41	46	13	1,302
25–34	39	46	16	1,409
35–44	44	41	16	1,609
45–54	46	40	18	1,427
55–64	56	32	12	1,264
65–74	65	25	10	897
75–84	69	22	9	649
85+	74	22	4	188
All	50	37	12	8,745
Male	49	38	14	4,276
Female	51	37	12	4,470
All	50	37	12	8,746

Note: Weighted by 'core' weight, individual weight for core sample for quarters 1, 2, 3 and 4; respondents in England only. Source: Home $Office^{202}$.

There is no simple relationship between national identity and constitutional preferences. In Northern Ireland, there is some evidence that the relationship between national identity and constitutional preference is weakening due to decline in support for a united Ireland among those who report an Irish identity⁹. For Scotland, around half of those with strong Scottish identities nevertheless say that they would prefer Scotland to remain part of the UK. Given the modest effects of the 1997 devolution arrangements in the UK on national identities, it is unlikely that further devolution for Wales or Scotland will have major implications for British national identity⁸. However, if Scottish independence were to lead to a reduction in the notion of 'Britishness' and an increase in 'Englishness' as an identity, this could lead to an identity crisis for ethnic minorities, who typically are less able to access an 'English' identity⁸ ¹⁵.

Some evidence suggests that many citizens of the UK still favour dual identities (for example, British and English, or British and Welsh)⁷. A survey in 2010 showed that 37% of those born and living in England said they felt only or mainly English and 46% felt equally English and British, while in Scotland 73% felt only or mainly Scottish and 21% equally Scottish and British²⁰⁰. Most minorities have both ethnic and British identities, reinforcing the multiple and overlapping nature of many identities. In the scenarios developed for this Report, Esther embraces Scottish identity alongside her British identity, but still feels she is an outsider (Box 3.10: Esther 2023).

Box 3.10: Esther 2023

These scenarios illustrate how drivers of change may affect individuals in different contexts

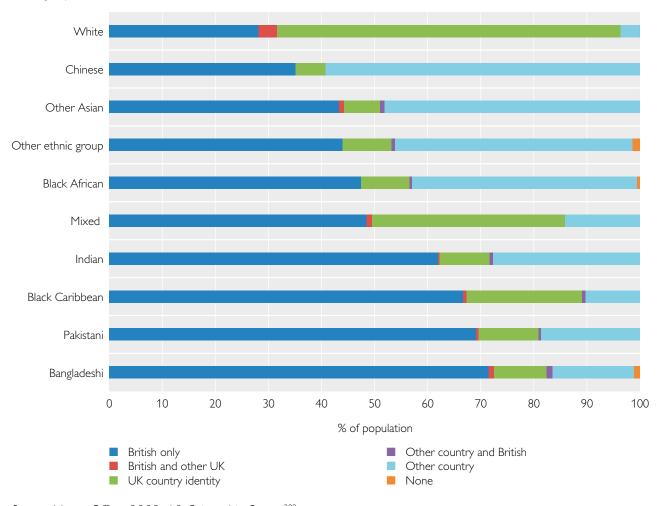


In 2023 Esther is 32 years old and working as an art curator in a small museum near Glasgow. She feels settled in Scotland and intends to remain there permanently. However, she does not feel accepted by many Scots as she thinks that they continue to view her as something of an outsider, even though she has embraced Scottish culture. Esther is aware that she doesn't entirely fit in and her Yorkshire twang hasn't entirely gone, but feels both British and Glaswegian all the same. She is attached to Scotland and feels a sense of community there. Partly to try and fit in, she has joined the SNP and is taking evening classes to learn traditional Scottish crafts. She is often online in virtual 'cafés' where she maintains a large social network of people from across the UK and internationally, and feels as close to her virtual friends all over the world as she does to her friends in Glasgow.

Minority ethnic groups tend to have fairly strong levels of identification with a British national identity¹⁶ (Figure 3.7), which can be even stronger among the younger generation. People of Pakistani and Bangladeshi heritage express particularly high levels of British identity. A strong religious identity can also coexist comfortably with dual national or ethnic identities¹⁵ ²⁰³. There is no evidence that Muslim Pakistanis, for example, are more inclined towards 'separatist' identities; if anything the reverse is the case¹⁵. Muslim individuals who identify strongly as British can see their Muslim identity as reinforcing their sense of 'Britishness' through shared moral values¹⁰. For these people, the experience of being viewed as 'other' (for example, through counter-terrorism measures such as being stopped and searched) is experienced as profoundly negative because it questions the validity of a highly valued aspect of identity. These measures can be counter-productive if they make ordinary British citizens feel under suspicion²⁰⁴. Negative experiences can lead people to feel that they are less able to influence fellow Muslims to engage in mainstream society, and even encourage them to be sympathetic towards more confrontational Muslim views¹⁰. The actions and rhetoric of the majority White British community will affect how minority groups feel or react to perceived injustices.

Figure 3.7: Summary of national identity by ethnic group.

Ethnic group



Source: Home Office, 2009–10 Citizenship Survey²⁰².

Summary

In the UK, there is a long-term trend of declining trust in figures of authority, from politicians to police officers. This trend is reflected in political fragmentation and the rise of single issue political parties. Social changes are driving people's national identities and the extent to which they identify as 'British'. Over the timescales of this Report, there may be only gradual change to identities in terms of partisanship and national identity. However, as the scenarios showed using the examples of Esther and Dylan, individuals are affected to varying extents by these trends (see Box 3.11: Scenarios summary).

Box 3.11: Scenarios summary

These scenarios illustrate how drivers of change may affect individuals in different contexts





Key message

Dylan and Esther's stories show that over 10 years of their lives, different aspects of their identities become of greater or lesser importance depending on their circumstances. For Dylan, family relationships and his local community continue to be key parts of his identity, while he tries to move with the times by beginning to explore the internet but with a sense of being a trespasser into a world he does not yet fully understand. For Esther, the decade is one of trying to develop herself as an independent adult, within the constraints of economic austerity. For both individuals, wider trends affect their lives and identities, but at some times these drivers of change are subsumed by more pressing local or personal concerns.

4. Challenges and opportunities

Over the next 10 years, UK government policy makers will have to respond to a variety of new opportunities and challenges affecting people's identities. While some traditional categories of identity are unlikely to change significantly, other aspects of identity and the expression of identity will change relatively quickly. The main themes which will characterise this period of change will be hyper-connectivity, a more pluralised society, and blurring between public and private identities. The pace of change in these areas appears to be increasing, being partly driven by the internet facilitating online communities of interest. It will be critical to understand the context-specific nature of people's identities, as they alter according to circumstances. The implications are that policy will be more effective if the evolving and complex nature of identity is considered during the process of developing and delivering policy. The Government is already moving towards making fuller use of the digital environment by providing services online, and through 'Open Policy Making'205.

This Report reinforces the importance of this approach, while suggesting key areas where attention will need to be focused.

This chapter draws on the evidence discussed in Chapter 3 to explore specific challenges and opportunities for policy makers over the next 10 years. The drivers of change identified in this Report indicate that traditional social and biographical categories of identity (age, ethnicity, religion, nationality, local community, and political allegiances) will continue to exert influence, but are unlikely to show any significant change, and may gradually become less important. Some drivers are likely to lead to much more rapid change in identities. The impact of social media, the development of increasingly dense networks of information, and rapid developments in mobile communications technology will continue to transform the ways in which people interact both locally and globally. Three overarching themes will be central to this more rapid change over the next 10 years: hyperconnectivity; increasing social plurality; and blurring between public and private identities. These are discussed in detail in the following section. The chapter goes on to consider the potential implications of changing identities for specific areas of government policy: social mobility; social integration; radicalisation and extremism; health, environment and wellbeing; skills, employment and education; and crime and criminal justice.

4.1 Key themes of changing identities

From the wide range of evidence on identities considered in Chapter 3, three important overarching themes were identified which merit particular attention by policy makers:

- Increasing hyper-connectivity: people can now be 'connected' at all times. There is convergence between online and offline identities, as the digital divide dissolves, especially for the younger 'Generation Z'. Identities are becoming more susceptible to change, and highly context-specific.
- Increasing social plurality: this means that identities are becoming more varied, and less reliant on traditional social categories. However, since a decade is a short time span for significant social change, a trend of gradual evolution and relative stability should be expected in some areas, such as religious identities.

• Blurring of public and private identities: attitudes to privacy are changing and people are more willing to place private information about themselves into public domains, and to cede control of their identities. The result is an increasing convergence between private and public identities.

Each of these themes is discussed briefly in the following sections. They provide a starting point for policy makers to consider how the many trends and issues set out in Chapter 3 might together create particular challenges and opportunities for society as a whole.

4.1.1 Increasing hyper-connectivity

The trend towards hyper-connectivity suggests that changes in social and technological environments will combine to exert a particularly important influence on people's identities. In particular, the increasing speed and mobility of internet access, together with greater take-up and penetration into all aspects of people's lives, will act to reduce meaningful differentiation between online and offline lives and identities, and could increase the pace and turbulence of social change.

Digital technology is transforming the ways in which young people, in particular, manage their social relations and identities²⁰⁶. The term 'swarming' has been used to describe how people can use mobile technology to keep in touch with large numbers of other people and to organise impromptu gatherings²⁰⁷. In terms of identities, this means that increasingly, young people no longer see themselves as members of one distinct social group, but belong to several more amorphous groups. Hyper-connectivity can also enable the mobilisation of groups, using identity as a resource for social or political change. These mobilisations may take the form of 'flash mobs' which are rapidly organised using varied media, often dissipating as quickly as they appear. Younger people are much more likely to be hyper-connected, and this may strengthen and facilitate new protest movements, for example drawing attention to social, political, environmental or global issues, and mobilising protestors, including people who were not previously associated with any radical action. The impact of the equally hyper-connected media environment can amplify and add momentum to such movements, creating larger-scale public issues which could be unanticipated.

The rapid speed of modern globalised communications creates an environment for identities in the UK to be influenced by issues and events emanating from Europe, the USA or further afield, with new communities of interest continually forming and dispersing. This has many positive outcomes for society, including increasing awareness of global events, but this trend could also add a further layer of uncertainty and volatility. Therefore, a particular challenge posed by hyper-connectivity will be the potential for greater social turbulence which could be difficult to predict or anticipate. Policy makers will need to be alert to adverse consequences caused by these kinds of changes, as they could challenge social order. However, it is important not to see changing identities as a threat to society², as this could itself generate a negative reaction with possibly undesirable consequences¹o. Hyper-connectivity could enable some people whose work and home identities, for example, come into conflict, to achieve a more integrated and coherent sense of self².

A further challenge is raised by the sheer speed of communications. Hyper-connected citizens may well expect government to respond with similar swiftness and to be able to react in real time to current events, or at least to act more quickly. They may also expect that government should draw upon a good understanding of the different identities and perspectives involved. This high expectation of agility and responsiveness poses a real challenge for policy makers. While policies that are responsive to changing identities are likely to be more effective, equally there are dangers in being either over-reactive or superficial. A compromise will therefore need to be found between responsiveness and agility, and the more measured approaches that have been used by policy makers in the past.

4.1.2 Increasing social plurality

The evidence reviewed in Chapter 3 suggests an overarching trend towards greater social plurality or heterogeneity in UK society. The norms to which people conform in their behaviour or their views may become fewer, and world-views could become more diverse. Drivers of this trend include: the shifting demographics of an ageing population; larger numbers of dependants (older people and those under 16) depending on a smaller working population; greater diversity with a larger proportion of minority ethnic groups, spread more widely around the UK; changing patterns of immigration especially from the EU; the economic downturn, which inevitably affects sections of the population in different ways; the fragmentation of political affiliation and declining party political engagement; and developments in communications technology, transforming the way in which people group themselves to form new dispersed or 'virtual' communities. These drivers of change acting together may diversify society into less integrated, more transient groupings, creating a plurality of groups and individuals.

There may be greater differentiation of age-related identities, reflecting both demographic change and possibly the diverging economic interests between age groups. A key issue for policy makers is the potential long-term effects of the recession on the identities of those who lost their jobs, or on young people who were unable to secure jobs, bearing in mind the evidence for greater income inequality in the UK discussed in Chapter 3 and the possibility of more segregation between the very wealthy and the long-term unemployed or low-income families.

Increasing social plurality does not necessarily imply greater conflict or a threat to social solidarity. Rather, it suggests a society based on difference (personal and social) as opposed to similarities or notions of the average. For example, online 'virtual' communities of interest can provide a new focus for group identities and support networks. For local communities based on geographical identities, local issues such as longer-term environmental change or shorter-term challenges from infrastructure projects may result in communities coming together in response to specific threats, or opportunities.

As the horizon of this Report is only a decade ahead, and some trends change very slowly, there is likely to be only gradual evolution or stability of some aspects of identities. The evidence set out in Chapter 3 suggests that religious, class and national identities are likely either to decline on average or to remain relatively stable over the next 10 years. It is possible that there could be a revival of strong religious identities, for example in response to some major event, but the most likely course is for gradual secularisation among most major faiths. Within this general trend, there may be some variation, with a potential increase in ultra-orthodox identities within some religions, for example among Jews, evangelical Christians and Muslims. To some extent, long-standing religious identities support social integration, as they encompass large groups of citizens in shared group identities.

It seems most likely that there will be only a very gradual change in British, Scottish and other national identities in the UK, although this could be influenced by the outcome of any future referenda, for example on Scottish independence. To some extent, and in some circumstances, these national identities bring groups of people together in a shared identity; and so they are also a factor in social integration.

4.1.3 Blurring of public and private identities

Attitudes to privacy are changing and people are more willing to place personal information into public domains, such as social media, giving rise to a convergence between previously private and public identities. Posting mobile phone photographs and videos online has led to a cultural shift, where many people broadcast their daily lives and experiences, creating a virtual autobiography²⁰⁸, rather than protect their privacy. Younger people tend to be less concerned with privacy, but it is entirely possible that, over time, the amount of information about them available online will begin to be used in unexpected ways. They may not fully understand the extent to which they have ceded control of aspects of their identities to private sector companies. The need for government to balance the conflicting needs of security and the public good, with protecting privacy and individual liberty is already well established. However, the ever-increasing amount of private and public information creates potential benefits through better targeting of services and greater responsiveness from organisations and government.

Surveillance technologies operated by the state and by the private sector offer opportunities for greater protection and public security, but there are also broader social effects to consider. The level of trust between citizens and authority is critical to issues such as holding, protecting and regulating personal data, and the use of 'big data' sets. For example, the ability of young people to explore and establish their own identities might be restricted if they feel that controversial views, or involvement in social protest, might count against them later in life. Citizens could feel their identities are potentially subject to scrutiny and judgment, and that this might undermine their freedom of expression and damage their trust in the state. There are currently many forms of resistance to the collection and analysis of personal data by individuals, campaign groups and civil liberties organisations. People and groups might, for example, adapt their behaviour in order to avoid being tracked, or use surveillance technologies to record and reflect the behaviour of the authorities, such as when demonstrators film the police. There is also direct action against surveillance technologies, including attacks on speed cameras, organised campaigns and freedom of information campaigning organisations. As the collection and analysis of personal data intensifies, resistance may increase. These forms of resistance have the potential to influence people's identities, both at the level of the individual and the group, in the future.

Summary

Citizens will increasingly be characterised as hyper-connected individuals who make choices which reflect their identities. Simple categorisations based on 'traditional' notions of identities are likely to become less meaningful in the digital age as it gathers pace over the next decade. To be effective, policy makers will need to engage with citizens at a number of levels, online and offline, and be more agile in responding to the challenges of a digital environment.

These three themes taken together suggest the following implications for government:

- There is a clear case for government to take a more detailed and nuanced consideration of identities when developing, implementing and testing policies, for example in initiatives such as Test, Learn, Adapt ²⁰⁹, and draw upon a deeper scientific understanding of people's evolving identities to improve the design and effectiveness of policies.
- The increasing speed and connectivity of information technology systems, which is a key
 driver of these effects, also offers opportunities for both monitoring what is happening
 in real time and assessing the effectiveness of specific policies.

Together, these would enable policies to evolve in a faster, more effective, and more reflexive manner. In some cases, it may be possible to learn from problems and adapt policies in real time. However, further work would be required to address questions over how this could be achieved in terms of technical feasibility, the value of different media in providing feedback, and whether the public would be willing to accept more iterative policy making and actively contribute to its improvement, such as through Open Policy Makingviii. There are examples that show how a better appreciation of different identities can offer new insights for policy makers, such as field research which demonstrates how self-identities, personal norms, and neighbourhood identification can be used to predict recycling behaviours, showing that pro-recycling interventions can promote positive behaviours by appealing to self-identity and making people feel like recyclers²¹⁰. Other projects have used identities to build social capital, for example among young people from urban minority ethnic groups in London. A programme designed to raise self-esteem, and discourage involvement in crime and participation in gangs, used a contextual understanding of their experiences of school and 'street life', family and social relationships, and explored how trust, awareness and self-empowerment might be generated²¹¹.

4.2 Implications for specific areas of policy

This section discusses how the evidence set out in Chapter 3, and the three overarching themes discussed above, may have influence in six important areas of government policy over the next decade. It sets out some of the key challenges, opportunities and questions for policy makers to address. However, because of the wide-ranging nature of this Report and the many pervasive effects of identities on a wide range of government policies, the areas chosen are illustrative rather than exhaustive. The areas considered are:

- Social mobility
- Social integration
- Radicalisation and extremism
- · Health, environment and wellbeing
- Skills, employment and education
- Crime and criminal justice

4.2.1 Social mobility

The trend towards greater social plurality with a variety of multiple, changing identities, means that mapping and understanding social mobility will become more complex in future. Some of the trends suggest there will be more divergence between groups, which may make social mobility more problematic by increasing barriers for more marginalised groups. Perceptions of unfairness in access to opportunities, rather than actual inequality, may in turn reinforce certain kinds of social identities and increase the potential for collective action. However, as access to the internet and hyper-connectivity increase, information and education may become more freely available and shared, enhancing life opportunities for many individuals. There are challenges over the extent of digital provision and differential access between generations, between social classes, and between geographical regions, which may favour some people over others. The extent of digital literacy as an enabler of identity expression is likely to remain a key policy issue.

viii 'Open Policy Making' is a way of making government policy making more open to external influences, and more contestable, through shared power, transparency, real-world testing and iteration²⁰⁵.

The key challenge will be to understand and monitor inequalities of opportunity and perceptions of unfainess, especially for vulnerable subgroups. Vulnerable subgroups include not only the 'equality groups' identified in the 2010 Equality Act, but also groups such as young people, who could become marginalised by the labour market and who may suffer long-term effects due to the recession. Inequality or lack of social mobility does not in itself necessarily entail conflict. Perceptions of fairness in the allocation of rewards, and fair routes of access to privileged positions, appear to be more important than income inequality.

While general policies designed to promote social mobility will continue to be important, some vulnerable groups may face distinct barriers that might not necessarily be addressed by more general policies. Understanding the nature of the barriers faced, and developing policies tailored to address them, will be important. Such barriers might include ones such as the 'chill factor', where individuals do not feel welcome in certain environments and so are discouraged from entering them, thereby excluding themselves. Attracting such groups will require effective outreach programmes based on a sophisticated understanding of the self-identities of individuals in the target groups.

Digital technology will play an ever-increasing role in the development and expression of identities. Therefore, levels of access to the internet and computer skills for individuals will be important for society and for the UK, potentially playing a key role in global competitiveness. Given that identities are both a social and personal resource, it will become even more necessary to ensure equality of digital access, freedom of expression, and security. There is a danger that full engagement with the digital environment might remain largely a middle and higher-income preserve, which may create new forms of inequality while potentially entrenching existing ones more deeply. However, there are also opportunities to increase equality of access and facilitate greater social mobility. The UK's focus on digital network provision and access will remain important, particularly in relation to higher access speeds, mobile and fixed access, and for disadvantaged rural communities.

4.2.2 Social integration

The trend towards great social plurality, demographic trends and the gradual reduction in importance of some traditional aspects of identity, suggest that communities in the UK over the next 10 years are likely to become less cohesive as traditional identities become more fragmented. However, hyper-connectivity can also create or strengthen new group identities. Policy makers will need to understand how policies affect individuals differently, taking into consideration indirect as well as direct impacts, and any unintended effects of government policy and social change. These will not always be immediately apparent, so continued monitoring and evaluation will be needed. There will also be opportunities for policy to support social integration and acknowledge new forms of community as they emerge.

Trends explored in Chapter 3, including demographic change, immigration, diversity, the ageing population, and the economy, are likely to influence people's identities and expectations. Young people may have very different expectations from previous cohorts in terms of wealth creation and debt, home ownership, careers and stability. Uncertainties over future economic growth may also give rise to a lack of feeling of belonging, and less social investment for the future by some groups. This may raise issues for personal debt management and saving, affordable homes, and the labour market. The growth in the so-called 'sandwich' generation, who have responsibilities for both childrearing and elderly care, also has implications for social policy as this group may demand greater recognition and, potentially, assistance, financial or otherwise¹³.

Over the next 10 years, identity will continue to be a driving factor in social protest¹⁰. In understanding protest, it is important not to oversimplify the way in which the dynamics between groups can play a part in creating conflict, and the way in which relations between underprivileged local communities and the police can create tension¹⁰. In the aftermath of the recession, there is a risk that the negative longer-term impacts of unemployment and reduced opportunity could affect particular social groups, such as those already living in disadvantaged areas or in poverty¹⁰ ¹⁵. For example, it is well known that high numbers of young Black people are not in education, training or employment¹⁶. A nuanced understanding of the relationship between groups would address the differentials and, since people's identities are multifaceted, policies which reinforce this complexity rather than dwelling on single group memberships could lead to greater social integration¹¹.

Policy makers should take into account the potential impacts of their policies on a range of different identities in particular contexts, including indirect social consequences. The peace process in Northern Ireland gives some indication of how this challenge can be approached through an understanding of the role of political and cultural identities in resolving conflict⁷. The spread of liberal and more civic identities and values may provide an important resource for more inclusive forms of participation and a more tolerant society¹⁴. There are opportunities for policy makers to reduce conflict, prejudice and discrimination, and promote policies which encourage social integration. Consideration could also be given to the validity of new forms of virtual and other transient communities to see how they can support individuals.

Lack of social integration can also occur as a result of individuals restricting their social and civic involvement, and becoming socially isolated, which restricts the development of positive social identities in favour of excluded group or individual identities. Consideration will need to be given to ensuring that such vulnerable communities are not neglected.

4.2.3 Radicalisation and extremism

Trends in changing identities in the UK over the next 10 years will be a crucial factor in understanding extremism and radicalisation. The trends towards greater social plurality, declining trust in authority, and increasing take-up of new technologies may all pose challenges for policy makers seeking to manage these issues. It will be important for policy makers to consider how decision making might affect some group identities and be a possible catalyst for negative reactions.

The evidence on changing identities set out in Chapter 3 suggests that while there is the potential for radicalisation and extremism driven by hyper-connectivity and increasing social plurality, it is important to recognise that the translation of potential into collective action is unpredictable, and depends on various triggering events or mobilisation activities. This unpredictability increases the need for flexibility, and care in planning and responding to events.

This section does not address extremism in, or radicalisation of, any particular groups but considers the underlying factors which could potentially drive extremism or radicalisation in the future. The themes set out earlier in this chapter suggest that individual, political, and social identities will become more volatile, as people may come into contact with new ideas, form new links and connections online and offline, and form new or transient communities of interest. Identity can be a resource for social upheaval, or resistance to change, or can become a locus for protest. As discussed earlier, it can also be a resource for cohesion and resilience.

Extremism includes a range of behaviours which have different motivations and ideologies, and it is important to differentiate between legitimate protest and criminal behaviour. Extremism could encompass far right groups, animal rights extremists, anti-GM protesters, Islamic radicals, or a range of other groups, including ones which cannot be foreseen. While the actions of many such groups will be entirely legitimate or benign, some groups may form around more radicalised or extremist ideologies, including some with authority-challenging behaviours¹⁴. One major challenge could be in preventing a rise of the far right, or increasing xenophobic rhetoric⁹ ¹⁰, where effective policy interventions could be informed by an understanding of the impact of current policies, for example where they may have unintended consequences by excluding particular identities.

Much of the concern about the potential for radicalisation, for example in Muslim communities, is focused on the exploitation by radicals of individuals made vulnerable to radicalisation, whether through family or social rejection or negative experiences with authority. In this context, it has been argued that radicals can offer the solace of a cohesive group¹⁰. The role of online channels is often seen as crucial in providing support and information to facilitate radicalisation. It is true that the internet may provide a medium in which extreme views can become accentuated and normalised, but such material can also be placed online precisely because it is ineffective offline². At the same time, the internet can provide a platform for open debate and challenge. So while hyper-connectivity may link individuals in the UK with radicalised groups based elsewhere, it can also provide alternative and more moderate viewpoints.

4.2.4 Health, environment and wellbeing

Places are very important to forming and understanding identity. A strong sense of 'belonging' to places, families, and communities can promote wellbeing. Policies which could disrupt place identity may therefore have implications for city development, planning, building, infrastructure and transport, where potential impacts will need to be managed sensitively to avoid unnecessary distress. Places can be restorative, and so policies which promote green spaces and protect the countryside can be important for health and wellbeing. The development of biomedical technologies could potentially be transformative for how people relate to themselves, others, and their environment: but there are complex ethical and practical implications for government in regulating and responding to them.

Chapter 3 sets out how environmental and place-based changes over the next 10 years may affect people's identities. 'Place' is a key context for identity, as people respond in complex ways to their immediate environment. Environments such as green space and countryside can foster wellbeing and be 'restorative', while adverse environments can cause stress. The impact of environmental disruption can be disruptive for place-based identity. Policies in planning, transport, infrastructure and development which could potentially threaten place identities will need to take into account the potential impact on individual and community identities. The importance of preserving green and publicly accessible open spaces, and designing restorative environments should be considered within the context of identity and wellbeing.

Place and how people relate to the physical world are likely to be closely affected by new and emerging technologies. In the future, the emergence of an 'intelligent' or smart environment could lead to even closer relationships with place; for example, mobile technology enables people to be hyper-connected even in a very remote place. Tracking and identification technologies could change people's relationships with places. In time, some of these technologies may become more readily available and be integrated into 'smart' fabrics and clothing, or even bodies.

Biomedical technological developments are likely to gather momentum over the next 10 years. This could raise important philosophical questions about the nature and normative limits of human identity, and about the ethical implications of using biomedical technologies to alter human identity²¹². This may include 'enhancement' technologies, which can be closely related to individual identity and cultural expectations, relating to cultural norms and perceptions. These affect ascribed identities, with implications for marginalisation, inclusion and exclusion.

Biomedical technologies may increasingly remove distinctions between those with disabilities and those without, as well as blurring traditional age, gender, and role boundaries. Some of these developments can be expected over the next decade. Since all these developments are resource intensive, they also raise the possibility of reinforcing inequality between those who have more and those who have fewer economic resources. They raise potential questions about the control of an individual's body and privacy if, over the longer-term, technologies that are invasive of brain activity and bodily function begin to be used. There is already an extensive literature in this area discussing the profound ethical and practical implications for governments, policy makers and healthcare workers as they regulate and fund health, medicine and social care.

4.2.5 Skills, employment and education

Digital literacy is essential to enable people to make full use of computing and the internet to express their identities, and to connect with social media, services, and information. This section focuses on raising awareness of the permanence of personal information available on the internet. Digital literacy will also be crucial to address a potential skills gap to enable the UK to be globally competitive in making best use of the technology revolution. A key issue for the future will be to ensure adequate levels of technological literacy across all social groups, to enable individuals to take control of their own online identities, and to be aware of their online presence and how it could be used by others.

As hyper-connectivity increases, people need to have a well-developed level of technological literacy to be able to express their identity online effectively and to manage different aspects of their online presence safely. To enable this, communications technology and computer skills must continue to be a key part of policies on skills and education from an early age, and be taught to a quality standard with a well-informed perspective on what level of skills will be needed in the future. Ensuring these skills are taught properly will also be critical for the workplace, as IT proficiency will be of growing importance for employers. In practice, the benefits will not be realised without a substantial investment in the education of a trained workforce. At present, there is likely to be a skills shortage which could prevent the UK from realising the potential of its workers, and potentially inhibit economic growth. There is a significant opportunity to address the potential skills gap, especially for high-tech industries, to make sure the UK is best placed to reap the benefits of new technology¹¹⁵.

The evidence in Chapter 3 shows that rising numbers of people have some digital presence whether they choose to or not. This can potentially affect their future employment, as employers increasingly check online information, and can cross-reference between different online platforms which are often themselves interlinked. The persistence and availability of data on the internet means that social and biographical identities will overlap to a much greater degree, for example across personal and professional spheres. Private lives are likely to become more public, especially among younger people who have a more open attitude to their personal privacy. Personal information could be made available to unintended audiences, with potential consequences for future careers. Such information could be increasingly used by employers for informal vetting, or to identify likely recruits²¹³. Raising public awareness of these issues will be critical in helping people to manage their online identities. Computer literacy skills for younger people as well as older people will be important to allow people to access and curate their online identities, and to protect themselves by understanding how personal information online can be cross-referenced and used, and how difficult it is to remove data from the digital environment.

As an ageing population and older workforce creates changing identities, inequality in digital knowledge and skills, particularly among older workers and the retired elderly, will need to be addressed. These groups are among some of the most rapidly connecting, and with devices becoming more intuitive and evidence of strong inter-generational support (certainly within middle/higher-income groups), many among these cohorts are digitally literate. However, there still remains a significant need for lifelong education to ensure the greatest possible numbers of people are employable, active and able to live full social lives.

4.2.6 Crime and criminal justice

The drivers of change for identities suggest a complex picture in the field of law enforcement and the UK's legal system and jurisdiction. The growing quantity of personal and financial data online means that there will be more opportunity for criminal exploitation: however, there are also opportunities for enhanced crime prevention, intelligence gathering, and crime detection. 'Open source' intelligence will become more important for detecting patterns of criminal behaviour, but the quantity of data available will make the location and analysis of relevant data more problematic, and will require the right skills and resources. The police and other organisations will need to take account of the multifaceted and dynamic nature of identity, while the legal system will need to continue to ensure that people's identities online and offline are protected.

Crime and crime prevention

Themes such as greater social plurality, hyper-connectivity and the blurring of public and private identities could all have implications for crime and security. While many of the current opportunities for criminal exploitation will continue to expand over the next decade, there will also be greater opportunities for crime prevention and detection, and for intelligence gathering and policing. Growing quantities of personal and financial information online will lead to more criminal exploitation of such data. Crime analysts have begun to use software for social network analysis to analyse criminal networks that use the internet to discuss their activities, plan, and learn new methods!⁹.

The evidence in this Report suggests that identities are complex, multifaceted, and contextual. This suggests that profiling of criminals, or potential criminals, based on stereotypes is unhelpful. Using 'average' profiles for different groups as a basis to predict behaviour or identify individuals of potential interest may be of limited effectiveness, because such an approach fails to recognise the diversity of identities. Nevertheless, technological advances can assist in tracking people online and verifying that they are who they claim to be, as a method of crime prevention, through improved verification techniques such as facial recognition technology²¹⁴, tracking digital 'footprints' created by regular patterns of using pathways and networks, and greater sophistication in identifying irregularities in behaviour that could indicate potential criminal behaviour or victimisation. Textual analysis can similarly be used to reveal irregularities in style and content that may indicate that the individual is committing a crime, or being victimised. In theory, in future it will be possible to identify an individual merely by their actions¹⁹. It seems likely that some aspects of online criminal behaviour could in future become harder to hide. However, there is also the potential for mistaken association, where innocent behaviour is tagged as potentially criminal, or 'trial by algorithm'²¹⁵.

The ability of law enforcement to adapt and respond to changing identities and technologies will be important in leveraging what advantage can be gained in crime prevention and detection. The increasing loss of anonymity online, as facial recognition technology, 'big data' and social media together begin to connect information about individuals, might be useful for the purposes of crime investigation. However, image recognition technology can be countered by use of prosthetic make-up, for example in some high-profile crimes such as armed robberies where criminals have taken steps to avoid being recognisable on CCTV.

Hyper-connectivity and the speed of information processing will mean that the authorities could find it more difficult to keep control over data and operations. For example, opportunities to detect crime in progress may be reduced as the time to complete transactions is reduced, meaning identity fraudsters only need to maintain credibility for a very short period of time.

'Open source' intelligence gathering will become a crucial part of crime investigation and prevention, but the amount of data online will far exceed the ability of the authorities to analyse it. Finding the relevant information will become more challenging, and the risk of missing something important is also comparatively higher. Moreover, some organisations may lack the technical skills and IT systems which would enable them to make best use of the data available. Consequently, the availability of the appropriate skills and investment in data gathering and analysis will become critical to making best use of these opportunities.

Over the next 10 years, themes such as social plurality, facilitated by hyper-connectivity, may lead to more social protests. Such protests will likely use new technologies to organise and communicate in real time from mobile devices. The response of the police will need to be nuanced and based on a clear understanding of the issues and alliances in each specific situation. Policy makers should therefore consider carefully how to mitigate the potential impact of perceived Black or Muslim alienation²⁰⁴ and ensure policies such as 'stop and search' are applied fairly to all, and are perceived as such, in this more fluid context.

Criminal justice

The foundation of English law is a liberal society, where social identity is, as far as possible, a personally defined and freely chosen individual possession. The rights and duties of 'British citizenship', may be defined by the state, but otherwise an individual is considered the rightful author of their identity. However, there are trends which potentially impinge on this principle and how it is understood in practice, ranging from new technologies to surveillance techniques and the use of personal data. The challenge for the criminal justice system is, therefore, to ensure the autonomy and security of personal, social, and online identities in the future. For example, the law could consider an individual's rights to their digital identities, especially after death, when their archived digital inheritance could become open to control by others, and potentially taken over in order to create fake identities to facilitate crime.

Surveillance is a key area where tensions can arise between the interests of crime prevention and law enforcement, and protecting privacy and individual liberty. Surveillance may be experienced very differently by different parts of a society, depending on class, ethnicity, religion, gender, or sexual orientation. For less powerful or marginalised communities, surveillance can increase fear and anxiety, undermining social integration as individuals feel unfairly targeted by group profiling. The use of surveillance technologies should be developed in ways that do not restrict freedom of speech or legitimate forms of behaviour which fall outside what might be considered normal.

Over the next decade, violations of identity and privacy in the online environment are likely to become an area for greater public concern; for example, the unauthorised publication of what a participant had assumed was private sexual activity could become more frequent². There may also be an increasing frequency of online identities being taken over by others for inappropriate 'virtual' acts, which some people consider analogous with similar abuse in the physical world². It is likely that governments will be increasingly embroiled in the legal consequences of online identity and how transgressions are policed. It is also possible that there will be emerging issues over human versus machine agency, bringing into question issues of responsibility and ownership in relation to the use and potential abuse of identity.

There will continue to be a need for the legal system to seek to balance the rights of individuals to liberty and freedom of expression (both online and offline), while protecting their privacy and their data. Law enforcement now occurs within a globalised environment, where legal jurisdiction can create limitations. It will be increasingly challenging to keep up with the pace of change in new technology and the myriad ways in which it interacts with people's identities and behaviours. For example, those drafting laws should expect that legal definitions relating to identity theft and property may be quickly outdated in view of the speed of evolution of new technologies, online platforms, and the transnational nature of the internet. There will also be a need for careful management of public expectations, greater public awareness of rights and responsibilities, and appropriate training for criminal justice agencies including the police, prosecution, courts, and the legal profession.

4.3 Conclusion

Over the next decade, identities in the UK are likely to undergo important changes, and will be increasingly dynamic or volatile. Simple categorisations based on traditional notions of identities are likely to become less meaningful. This will affect society and influence the way that people live their lives. In future, the UK needs to be considered as much a part of the virtual world as a real place. Increasingly, its citizens will be globally networked, hyper-connected individuals, and this has substantial implications for what is meant by communities and by social integration.

The increasing speed and connectivity of information technology systems offers opportunities for monitoring what is happening in real time, and assessing the effectiveness of specific policies. For policy makers, understanding the changing nature of identity in the UK will be increasingly important for effective policy making and implementation. Failure to do so may lead to missed opportunities to, for example, strengthen social integration, reduce exclusion, enhance open policy making, and make effective use of identities as a resource. Government would also benefit from drawing upon a deeper scientific understanding of people's evolving identities when developing, implementing and testing policies, for example in initiatives such as 'Test, Learn, Adapt'. Policy making across many different areas will need to be more iterative, adaptive, nuanced and agile, taking into consideration the multifaceted nature of people's identities and how policies might affect different groups, or individuals, at different times and places.

Acknowledgements

The Government Office for Science would like to express thanks to the following individuals who were involved in the project.

Project lead expert group:

Prof Chris Hankin (Chair) Professor of Computing Science, Director of the Institute for Security Science

and Technology, Imperial College London

Dr Aaron Cooper Defence Science and Technology Laboratory

Dr Maureen Fordham Enterprise Fellow Principal Lecturer in Disaster Management, Department of

Geography, University of Northumbria

Prof Anthony Heath, FBA Professor of Sociology at the Institute for Social Change, University of

Manchester and Emeritus Professor of Sociology, University of Oxford.

Prof Michael Hulme Founder Director and Senior Centre Director, Social Futures Observatory

Prof Nick Jennings Professor of Computer Science, School of Electronics and Computer Science,

University of Southampton

Prof Adam Joinson Professor of Behavioural Change, University of the West of England (UWE

Bristol)

Prof Mark Levine Professor of Social Psychology, Department of Psychology, University of Exeter

Prof Ann Phoenix Professor, Co-Director of Thomas Coram Research Unit, Institute of Education,

University of London

Prof Nigel Rapport Professor of Anthropological and Philosophical Studies, School of Philosophical,

Anthropological and Film Studies, Director of the St. Andrews Centre for

Cosmopolitan Studies, University of St Andrews

Final report peer reviewers:

Mr Dave Coplin Chief Envisioning Officer, Microsoft

Prof Colin Crouch Emeritus Professor, External Scientific member of the Max-Planck-Institute for

Social Research at Cologne, University of Warwick

Prof Ian Loader Professor of Criminology and Professorial Fellow, Faculty of Law,

University of Oxford

Prof Margaret Wetherell Emeritus Professor and half-time Chair in the Psychology Department,

University of Auckland, New Zealand

Prof Brian Wynne Professor of Science Studies, Centre for the Study of Environmental Change,

Lancaster University, Professor at ESRC Centre for Economic and Social Aspects

of Genomics

Authors and contributors:

Prof Dominic Abrams Director, Centre for the Study of Group Processes, University of Kent

Prof Neil Adger Professor of Geography, College of Life and Environmental Sciences,

University of Exeter

Ms Sundas Ali Doctoral Student in Sociology, University of Oxford

Prof Sara Arber Professor of Sociology and Co-Director, Centre for Research on Ageing and

Gender, University of Surrey

Dr Kirstie Ball Reader in Surveillance and Organisation, Centre for People and Organisations,

Open University

Dr Michael Biggs Lecturer, Department of Sociology, University of Oxford

Dr Scott Blinder Acting Director, Migration Observatory, University of Oxford

Prof Pam Briggs Chair in Applied Psychology, Department of Psychology, Northumbria University

Dr Ian Brown Associate Director and Senior Research Fellow, Cyber Security Centre,

University of Oxford

Dr Alberto Corsin Jimenez Senior Scientist, Centro de Ciencias Humanas y Sociales, Spain

Prof John Curtice Professor of Politics, University of Strathclyde

Dr Neli Demireva Leverhulme Postdoctoral Research Fellow, Nuffield College Research Fellow,

University of Oxford

Prof John Dixon Professor of Social Psychology, Department of Psychology, Open University

Prof Danny Dorling Professor of Human Geography, Department of Geography,

University of Sheffield

Associate Prof Nicole Ellison Director of Graduate Studies, Department of Telecommunication, Information

Studies, and Media, Michigan State University

Dr Robert Ford Lecturer in Politics, School of Social Sciences, University of Manchester

Dr Matthew Goodwin Associate Professor of Politics, School of Politics and International Relations,

University of Nottingham

Prof David Gordon Professorial Research Fellow in Social Justice, School for Policy Studies,

University of Bristol

Dr Maria Teresa Grasso Lecturer in Politics, Department of Politics, University of Sheffield

Prof Sarah Harper Director of the Oxford Institute of Population Ageing, University of Oxford

Prof Penelope Harvey Director of CRESC and Professor of Social Anthropology, School of Social

Sciences, University of Manchester

Prof Bernadette Hayes Chair in Sociology, Department of Sociology, University of Aberdeen

Prof Anthony Heath, FBA Professor of Sociology at the Institute for Social Change, University of

Manchester and Emeritus Professor of Sociology, University of Oxford.

Prof Karen Henwood Professor in the Cardiff School of Social Sciences, Cardiff University

Dr Eric Hirsch Head of Department, Social Anthropology, Brunel University

Prof Mikael Hjerm Department of Sociology, Umeå University, Sweden

Dr Nick Hopkins Senior Lecturer, School of Psychology, University of Dundee

Prof Matt Jones Head, Department of Computer Science, Swansea University

Acknowledgements 61

Prof Sinisa Malesevic Professor of Sociology, Head, UCD School of Sociology, University College Dublin

Prof Rahsaan Maxwell Assistant Professor of Political Science, Department of Political Science,

University of Massachusetts, Amherst

Prof Daniel Miller Professor of Material Culture, Department of Social Anthropology,

University College London

Dr Anja Neundorf Postdoctoral Prize Research Fellow, Nuffield College, University of Oxford

Dr Michael O'Connell Senior Lecturer, School of Psychology, University College Dublin

Dr David Owen Principal Research Fellow, School of Health and Social Studies,

University of Warwick

Prof Zizi Papacharissi Head, Department of Communication, University of Illinois at Chicago

Prof Ceri Peach Emeritus Professor of Social Geography, School of Geography and the

Environment, University of Oxford

Prof Edmund Penning-Rowsell Head, Flood Hazard Research Centre, Professor of Geography, Health and Social

Sciences, Middlesex University

Dr Mark Perry Senior Lecturer, Director of the People and Interactivity Research Centre,

Department of Information Systems and Computing, Brunel University

Prof Nick Pidgeon Professor of Environmental Psychology, Director, Understanding Risk Research

Group, Cardiff University

Prof Lucinda Platt Professor of Sociology, Director and Principal Investigator of the Millennium

Cohort Study, Department of Quantitative Social Science, Institute of Education

Dr John Postill Senior Research Fellow, School of Media and Communication, RMIT University,

Australia

Prof Stephen Reicher Professor of Social Psychology, School of Psychology and Neuroscience,

University of St Andrews

DrTracey Rihll Lecturer in Ancient History, Department of History and Classics,

Swansea University

Dr Evelyn Ruppert Senior Research Fellow, Centre for Research on Socio-Cultural Change,

Open University

Prof Angela Sasse Director of the Science of Cyber Security Research Institute,

Director of the Academic Centre of Excellence for Cyber Security Research,

Head of Information Security Research, University College London

Prof Peter Schmidt Professor of Politics, University of Gießen, Germany

Prof Jacqueline Scott Professor of Empirical Sociology, Faculty of Politics, Psychology, Sociology and

International Studies, University of Cambridge

Prof Lucy Suchman Professor of Sociology, Co-Director of Centre for Science Studies,

Lancaster University

Dr Graham Taylor Associate Professor in Sociology, Department of Health and Life Sciences,

University of the West of England, Bristol

Prof Peter Taylor-Gooby, FBA Professor of Social Policy, School of Social Policy, Sociology and Social Research,

University of Kent

Dr John Twigg Honorary Senior Research Fellow, Department of Earth Sciences, Principal

Research Associate, Department of Civil, Environment and Geomatic Engineering,

University College London

Dr Clare Twigger-Ross Technical Director, Collingwood Environmental Planning

Dr Milica Vasiljevic Lecturer in Psychology, School of Psychology, University of Kent

Prof David Voas Professor of Population Studies, Institute for Social and Economic Research,

University of Essex

Prof Alan Walker Professor of Social Policy and Social Gerontology, Department of Sociological

Studies, The University of Sheffield

Prof David Wall Professor of Criminology, Head of School of Applied Social Sciences,

Durham University

Dr Andrew Weyman Senior Lecturer, Department of Psychology, University of Bath

Dr Matthew Williams Senior Lecturer in Criminology, Social Sciences, Cardiff University

Prof David Wood Canada Research Chair (Tier II) in Surveillance Studies, Department of Sociology,

Queen's University, Canada

Prof Linda Woodhead Professor of Sociology of Religion, Department of Politics, Philosophy and

Religion, Lancaster University

Prof Richard Wyn-Jones Director of the Wales Governance Centre, Cardiff University

The Government Office for Science would also like to thank the many other individuals who have contributed to this Report, including those who commented on earlier drafts. Particular thanks are due to the members of the Project Advisory Group drawn from government departments.

Foresight Project team:

Prof Sandy Thomas Head of Foresight

Dr Lucy Mason Joint Deputy Head of Foresight

Jennifer Smookler Joint Deputy Head of Foresight

Eleri Jones Project Leader

Alex Salvoni Foresight Horizon Scanning Centre
Oliver Grant Foresight Horizon Scanning Centre

Jay AminProject ManagerEsther HornerProject ManagerGary CookProject Manager

Farhana Quasem Project Co-ordinator

Sejal Mahida Project Team

James Clements Horizon Scanning Centre Intern

Acknowledgements 63

Driver Reviews:

All driver reviews have been commissioned by the Foresight Project: The Future of Identity and have passed a double-blind peer review process.

The views expressed in these papers are the views of the authors and neither represent the views of the Government Office for Science nor the policy of the UK Government.

Project reports and papers are freely available to download at: http://www.bis.gov.uk/foresight

- 1 Harvey, P. (2013) Can histories of previous technological breakthroughs, drawn from the 20th and 21st centuries and including recent technologies, tell us anything about how identities might change over the next 10 years, and why? London: Government Office for Science.
- 2 Miller, D. (2013) What is the relationship between identities that people construct, express and consume online and those offline? London: Government Office for Science.
- 3 Ellison, N. (2013) Social media and identity. London: Government Office for Science.
- 4 Briggs, P. (2013) Will an increasing element of our identity be 'devolved' to machines? London: Government Office for Science.
- 5 Brown, I. (2013) How will surveillance and privacy technologies impact on the psychological notions of identity? London: Government Office for Science.
- 6 Twigger-Ross, C. (2013) How will environmental and place based change affect notions of identity in the UK over the next 10 years? London: Government Office for Science.
- 7 Malešević, S. (2013) How will ideology affect notions of identity in the next 10 years? London: Government Office for Science.
- 8 Curtice, J. (2013) National identity and constitutional change. London: Government Office for Science.
- 9 Goodwin, M. (2013) How might changes in political allegiances affect notions of identity in the next 10 years? London: Government Office for Science.
- 10 Reicher, S. and Hopkins, N. (2013) How will issues of power, conflict, and prejudice and discrimination impact upon notions of identity? London: Government Office for Science.
- II Abrams, D. and Vasiljevic, M. (2013) What happens to people's identities when the economy is suffering or flourishing? London: Government Office for Science.
- 12 Taylor-Gooby, P. (2013) How does economic inequality impinge upon notions of identity? London: Government Office for Science.
- 13 Harper, S. (2013) What will the age profile of the population mean for notions of identity in the next 10 years? London: Government Office for Science.
- 14 Grasso, M. (2013) What are the distinguishing generational, life course and historical drivers of changing identities? London: Government Office for Science.
- 15 Platt, P. (2013) How might we expect minorities' feelings of ethnic, religious and British identity to change, especially among the second and third generations? London: Government Office for Science.
- 16 Heath, A. and Ali, S. (2013) To what extent are on-going changes in national and supranational identities based on ethnic or civic conceptions of the nation, and what are the behavioural consequences of these different conceptions? London: Government Office for Science.
- 17 Pidgeon, N. and Henwood, K. (2013) What is the relationship between identity and technological, economic, demographic, environmental and political change viewed through a risk lens? London: Government Office for Science.
- 18 Owen, D. (2013) Is there evidence that national, and other, identities change as the ethnic composition of the UK changes? If so, how? Are there differences between people from different ethnic groups? And of different ages/social classes? London: Government Office for Science.
- 19 Wall, D. (2013) Identity related crime in the UK. London: Government Office for Science.
- 20 Wall, D. (2013) The future challenges of identity crime in the UK. London: Government Office for Science.

Other references:

- 21 Erikson, E. (1968) Identity, Youth and Crisis. New York: Norton.
- 22 Kroger, J. (2007) Identity Development: Adolescence through Adulthood. Second edition, Sage.
- 23 Bostrom, N. and Sandberg, A. (2011) *The Future of Identity.* Future of Humanity Institute, Faculty of Philosophy and Oxford Martin School, Oxford University.
- 24 Jetten, J., Haslam, C. and Haslam, S.A (Eds) (2011) The Social Cure: Identity, Health and Well Being. New York and Hove: Psychology Press.
- 25 Buonfino, A. (2007) Our Shared Future. Commission on Integration and Cohesion, London, 34–35.
- 26 Vertovec, S. (2004) Cheap calls: The social glue of migrant transnationalism. *Global Networks*, 4, 219–224.
- 27 Carr, N. (2010) The Shallows. What the Internet is Doing to Our Brains. New York, London: W.W. Norton & Company.
- 28 Schroeder, J. (2009) The cultural codes of branding. Marketing Theory, 9(1), 123-126.

- 29 Pongsakornrungsilp, S. and Schroeder, J. (2011) Understanding value co-creation in a co-consuming brand community. *Marketing Theory,* 11(3), 303–324
- 30 Office for National Statistics (2012) Methodology used to produce the national population projections, London: ONS [online]. Available from: http://www.ons.gov.uk/ons/guide-method/method-quality/specific/population-and-migration/population-projections/methodology---national-population-projections/index.html
- 31 Office for National Statistics (2012) *Topic guide to Population Projections*. London: ONS [online]. Available from: http://www.statistics.gov.uk/hub/population/population-change/population-projections
- 32 Office for National Statistics (2011) National Population Projections, 2010-based Statistical Bulletin. London: ONS [online]. Available from: http://www.ons.gov.uk/ons/rel/npp/national-population-projections/2010-based-projections/stb-2010-based-npp-principal-and-key-variants.html
- 33 Office for National Statistics (March 2012) National Population Projections: 2020-based reference volume: Series PP2 Release. London: ONS [online]. Available from: http://www.ons.gov.uk/ons/rel/npp/national-population-projections/2010-based-reference-volume--series-pp2/executive-summary.html
- 34 Office for National Statistics (2011) *Part of National Population Projections, 2010-based Projections release.* Figure 1: Estimated and projected age structure of the United Kingdom population, mid-2010 and mid-2035. London: ONS [online]. Available from: http://www.ons.gov.uk/ons/rel/npp/national-population-projections/2010-based-projections/sum-2010-based-national-population-projections.html.
- 35 Office for National Statistics (2011) Part of National Population Projection, 2010-based Projection release. Table A1-1, Principal projection UK summary, 2010-based. Reference Table (Excel sheet). London: ONS [online]. Available from: http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-229866
- 36 Christensen, K., Doblhammer, G., Rau, R. et al. (2009) Ageing populations: The challenges ahead. The Lancet, 374, 1196–1208.
- 37 Office for National Statistics (2011) Statistical bulletin: Cohort fertility 2010. Projected future family size. London: ONS [online]. Available from: http://www.ons.gov.uk/ons/rel/fertility-analysis/cohort-fertility-england-and-wales/2010/cohort-fertility-2010.html#tab-Projected-future-family-size
- 38 Jeffreys, M. (1989) (Ed.) Growing Old in the Twentieth Century. London: Routledge.
- 39 Tromans, N., Natamba, E. and Jeffries, J. (2009) Have women born outside the UK driven the rise in UK births since 2001? Population Trends, 136, 28–42.
- 40 Office for National Statistics (2012) Childbearing among UK Born and non-UK Born Women Living in the UK. London: ONS [online]. Available from: http://www.ons.gov.uk/ons/dcp171766_283876.pdf
- 41 Rogers, W. S. (2003) What is a child? In: Woodhead, M. and Montgomery, H. (Eds) *Understanding Childhood: An interdisciplinary approach*. Chichester: John Wiley, 1–44.
- 42 Valentine, G. (2000) Exploring children and young people's narratives of identity. Geoforum, 31(2), 257-267.
- 43 Schafer, M. H. (2010) Age identity in context: stress and the subjective side of aging. Social Psychology Quarterly. 73, 3, 245–264.
- 44 Office for National Statistics (2012) Young Adults Living with Parents in the UK, 2011. London: ONS [online]. Available from: http://www.ons.gov.uk/ons/dcp171776_266357.pdf
- 45 Personal Social Services Research Unit (2008) Informal Care for Older People Provided by Their Adult Children: Projections of Supply and Demand to 2041 in England: Report to the Strategy Unit (Cabinet Office) and the Department for Health [online]. Available from: http://www.pssru.ac.uk/pdf/dp2515.pdf
- 46 Office for National Statistics (2012) Older Workers in the Labour Market 2012. London: ONS [online]. Available from: http://www.ons.gov.uk/ons/dcp171776_267809.pdf
- 47 Royal Geographical Society (2011) Britain's Ageing Population. London: RGS [online]. Available from: http://www.21stcenturychallenges.org/focus/britains-greying-population/
- 48 Bowling, A., See-Tai, S., Ebrahim, S. et al. (2005) Attributes of identity. Ageing and Society, 25, 479–500.
- 49 Bowling, A. (2011) Do older and younger people differ in their reported well-being? A national survey of adults in Britain. Family Practice, 28(2), 145–155.
- 50 Collins (2012) Collins Online Dictionary [online]. Available from: http://www.collinsdictionary.com/dictionary/english/generation-z
- 51 Kiss, J. (2010) Child's play: The rise of generation Z. *The Guardian* [online]. Available from: http://www.guardian.co.uk/lg-talking-technology/rise-of-generation-z
- 52 Carrick-Davies, S. (2012) Young people need guidance to cope with the threats posed by social media. *The Guardian* [online]. Available from: http://www.guardian.co.uk/society/2012/aug/07/young-people-guidance-threats-social-media
- 53 Marshall, D. (2010) Understanding Children as Consumers. London: Sage.
- 54 Experian (2011) The Changing Face of UK Retail in Today's Multi-channel World: An Experian White Paper [online]. Available from: http://www.experian.co.uk/assets/business-strategies/white-papers/RWC-whitepaper2.pdf
- 55 International Labour Organization (2012) Global Employment Outlook [online]. Available from: http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_188810.pdf
- 56 Office for National Statistics (2012) Statistical Bulletin: Labour Market Statistics. London: ONS [online]. Available from: http://www.ons.gov.uk/ons/rel/lms/labour-market-statistics/november-2012/statistical-bulletin.html#tab-Young-people-in-the-labour-market
- 57 Department for Education (2012) Participation in Education, Training and Employment by 16- to 18-year-olds in England, end 2011. London: DfE [online]. Available from: http://www.education.gov.uk/childrenandyoungpeople/youngpeople/participation/a00210462/participation-in-education-training-employment-16-18
- 58 The Work Foundation (2011) Off the Map? The Geography of NEETs: A Snapshot Analysis for the Private Equity Foundation. London: The Work Foundation [online]. Available from: http://www.theworkfoundation.com/Assets/Docs/Off%20the%20map%20-%20PEF%20snapshot%20FINAL.PDF
- 59 Johnson, M. K. and Mollborn, S. (2009) Growing up faster, feeling older: Hardship in childhood and adolescence. Social Psychology Quarterly, 72, 39–60.
- 60 Department for Communities and Local Government (July 2010) Citizenship Survey 2009–10 (April 2009 March 2010), England. Cohesion Research Statistical Release 12. London: DCLG [online]. Available from: http://webarchive.nationalarchives.gov.uk/20120919132719/www.communities.gov.uk/documents/statistics/pdf/164191.pdf
- 61 Martin, K., Hart, R., MacLeod, S. and Kinder, K. (2010). Positivity in Practice: Approaches to Improving Perceptions of Young People and their Involvement in Crime and Anti-social Behaviour. Slough: National Foundation for Educational Research [online]. Available from: https://www.nfer.ac.uk/nfer/publications/PYC01.pdf

- 62 Willetts, D. (2010) The Pinch: How the Baby Boomers Took Their Children's Future and Why They Should Give It Back. London: Atlantic Books.
- 63 Brierley, P. (2006) Pulling Out of the Nosedive. A Contemporary Picture of Churchgoing: What the 2005 English Church Census Reveals. London: Christian Research.
- 64 McAndrew, S. (2011) Church Attendance in England, 1980-2005 [online]. Available from: http://www.brin.ac.uk/news/2011/church-attendance-in-england-1980-2005/
- 65 Office for National Statistics (2012) Changing Picture of Religious Affiliation over Last Decade. London: ONS [online]. Available from: http://www.ons.gov.uk/ons/rel/census/2011-census/key-statistics-for-local-authorities-in-england-and-wales/rpt-religion.html#tab-Changing-picture-of-religious-affiliation-over-last-decade
- 66 Tilley, J. (2003) Secularization and aging in Britain: Does family formation cause greater religiosity? Journal for the Scientific Study of Religion, 42(2), 269–278
- 67 Office for National Statistics (2011) Integrated Household Survey April 2010 to March 2011: Experimental Statistics. London: ONS [online]. Available from: http://www.ons.gov.uk/ons/rel/integrated-household-survey/integrated-household-survey/april-2010-to-march-2011.html#tab-Religion
- 68 Kaufmann, E. (2010) Shall the Religious Inherit the Earth: Religion, Demography and Politics in the 21st Century. London: Profile Books.
- 69 Crockett, A. and Voas, D. (2006) Generations of decline: Religious change in 20th century Britain. *Journal for the Scientific Study of Religion*, 45(4), 567-584
- 70 The University of Essex and the University of Dallas (2012) The British Election Study. Colchester: University of Essex [online]. Available from: http://bes2009-10.org/
- 71 Güveli, A. and Platt, L. (2011) Understanding the religious behaviour of Muslims in the Netherlands and the UK. Sociology, 45(6), 1008–1027.
- 72 Voas, D. and Fleischmann, F. (2012) Islam moves west: Religious change in the first and second generations. Annual Review of Sociology, 38, 525–545.
- 73 Geogiadis, A. and Manning, A. (2011) Change and continuity among minority communities in Britain. Journal of Population Economics, 24(2), 541–568.
- 74 Scourfield, J., Taylor, C., Moore, G. and Gilliat-Ray, S. (2012) The intergenerational transmission of Islam in England and Wales: Evidence from the Citizenship Survey. Sociology, 46(1), 91–108.
- 75 Office for National Statistics (2012) Ethnicity and Nationality in England and Wales 2011. London: ONS [online]. Available from: http://www.ons.gov.uk/ons/rel/census/2011-census/key-statistics-for-local-authorities-in-england-and-wales/rpt-ethnicity.html
- 76 Office for National Statistics (2012) Ethnicity and National Identity in England and Wales 2011, Changing picture of ethnicity over time. Part of 2011 Census, Key Statistics for Local Authorities in England and Wales Release. London: ONS [online]. Available at: http://www.ons.gov.uk/ons/rel/census/2011-census/key-statistics-for-local-authorities-in-england-and-wales/rpt-ethnicity.html#tab-Changing-picture-of-ethnicity-over-time
- 77 Wohland, P., Rees, P., Norman, P., Boden, P. and Janinska, M. (2010) Ethnic Population Projections for the UK and Local Areas 2001–2051, Working Paper 10/02, Department of Geography, University of Leeds [online]. Available from: http://www.esds.ac.uk/doc/6777%5Cmrdoc%5Cpdf%5C6777_workingpaper.pdf
- 78 The Migration Observatory (2012) Migration Flows of A8 and other EU Migrants to and from the UK. Oxford: University of Oxford [online]. Available from: http://www.migrationobservatory.ox.ac.uk/sites/files/migobs/Migration%20Flows%20of%20A8%20and%20other%20EU%20Migrants%20 to%20and%20from%20the%20UK.pdf
- 79 Ipsos MORI (2012) Attitudes Towards Immigration [online]. Available from: http://www.ipsos-mori.com/researchpublications/researcharchive/53/Attitudes-Towards-Immigration.aspx
- 80 European Values Study (2008) [online]. Available from: http://www.europeanvaluesstudy.eu/ (Accessed 2012).
- 81 Ford, R. (2008) Is racial prejudice declining in Britain? British Journal of Sociology, 59(4), 609-636.
- 82 Pehrson, S., Vignoles, L. and Brown, R. (2009) National identification and anti-immigrant prejudice: Individual and contextual effects of national definitions. *Social Psychology Quarterly*, 72, 24–38.
- 83 Sammut, G. (2011) Civic solidarity: The negotiation of identity in modern societies. Papers on Social Representations, 20, 4.1-4.24.
- 84 Home Office (2005) Citizenship Survey. London: Home Office [online]. Available from: http://www.esds.ac.uk/findingData/snDescription.asp?sn=5367
- 85 Bhui, K., Stansfield, S., McKenzie, K., Karlsen, S., Nazroo, J. and Weich, S. (2005) Racial/ethnic discrimination and common mental disorders among workers: Findings From the EMPIRIC study of ethnic minority groups in the United Kingdom. American Journal of Public Health, 95(3), 496–501.
- 86 The Runnymeade Trust (2012) Ethnic Minority British Election Study Key Findings. London: The Runnymeade Trust [online]. Available from: http://www.runnymedetrust.org/uploads/EMBESbriefingFINALx.pdf
- 87 Heath, A. and Cheung, S. Y. (2007) Unequal chances: Ethnic minorities in Western labour markets. *Proceedings of the British Academy* 137. Oxford: Oxford University Press.
- 88 Collins (2012) Collins Online Dictionary [online]. Available from: http://www.collinsdictionary.com/dictionary/english/hyperconnectivity
- 89 Fredette, J., Marom, R., Steiner, K. and Witters, L. (2012) The promise and peril of hyperconnectivity for organizations and societies. In Dutta, S. and Bilbao-Osorio, B. (Eds) *The Global Information Technology Report 2012: Living in a Hyperconnected World*. World Economic Forum [online]. Available from: http://www3.weforum.org/docs/Global_IT_Report_2012.pdf
- 90 Wellman, B. (2001) Physical place and cyber place: The rise of networked individualism. *International Journal of Urban and Regional Research*, 25(2), 227–252.
- 91 Biggs, P. (2012) Emerging issues for our hyperconnected world. In Dutta, S. and Bilbao-Osorio, B. (Eds) *The Global Information Technology Report* 2012: Living in a Hyperconnected World. World Economic Forum Insight Report [online]. Available from: http://www3.weforum.org/docs/Global_IT_Report_2012.pdf
- 92 Office for National Statistics (2012) Internet Access Households and Individuals 2012. London: ONS [online]. Available from: http://www.ons.gov.uk/ons/dcp171778_275775.pdf
- 93 Dutton, W. H. and Blank, G. (2011) Next Generation Users: The Internet in Britain 2011. Oxford Internet Survey 2011 Report. Oxford Internet Institute. Oxford: University of Oxford [online]. Available from: http://www.oii.ox.ac.uk/publications/oxis2011_report.pdf
- 94 Hulme, M. (2011) Life Support: Young people's needs in a digital age. London: Youthnet UK [online]. Available from: http://www.youthnet.org/wp-content/uploads/2011/05/Life-Support-Report.pdf

- 95 Eynon, R. and Geniets, A. (2012) On the Periphery? Understanding Low and Discontinued Internet Use Amongst Young People in Britain. Oxford Internet Institute. Oxford: University of Oxford [online]. Available from: http://www.nominettrust.org.uk/sites/default/files/NT%20lapsed%20Internet%20 users%20final.pdf
- 96 Dade, C. (2004) Transnationalism, Foreign Assistance, Domestic Communities: New Opportunities and New Challenges for Canada and the United States. Focal Point: Special Edition on Migration [online]. Available from: http://www.focal.ca/pdf/focalpoint_se_march2004.pdf
- 97 Vertovec, S. (2004) Trends and Impacts of Migrant Transnationalism. Centre on Migration, Policy and Society Working Paper No. 3, University of Oxford, 2004 [online]. Available from: http://www.cedir.fr/cedir2/wp-content/uploads/2012/07/VERTOVEC-Stephen-Migrant-Transnationalism-and-Modes-of-Transformation.pdf
- 98 Bourn, D. (2008) Young people, identity and living in a global society. *Policy & Practice: A Development Education Review*, 7, 48–61. Centre for Global Education [online]. Available from: http://www.developmenteducationreview.com/issue7-focus4
- 99 Plowman, L. (2011) Rethinking Young Children and Technology. Research Briefing One for Digital Childhoods. Scottish Universities Insight Institute [online]. Available from: http://www.ioe.stir.ac.uk/documents/ResearchBriefing1.pdf
- 100 Couldry, N. (2012) Media, Society, World: Social Theory and Digital Media Practice. Cambridge: Polity Press.
- 101 Madianou, M. (2012) Polymedia: Towards a new theory of digital media in interpersonal communication. *International Journal of Cultural Studies*. London: Sage.
- 102 Turkle, S. (2011). Alone together: Why we expect more from technology and less from each other. New York: Basic Books.
- 103 Ouellette, J. (2012) My so-called second life: Are you your avatar? Scientific American [online]. Available from: http://blogs.scientificamerican.com/cocktail-party-physics/2012/09/06/my-so-called-second-life-are-you-your-avatar/
- 104 Cooper, R. (2009) Alter Ego: Avatars and Their Creators. London: Chris Boot Ltd.
- 105 Ginsburg, F. (2012) Disability in the digital age. In Horst, H. and Miller, D. (Eds) Digital Anthropology. Oxford: Berg, 91–126.
- 106 Williams, B., Copestake, P., Eversley D. and Stafford, B. (2006) Experience and Expectation of Disabled People: A Research report for the Office for Disability Issues. London: Office for Disability Issues [online]. Available from: http://odi.dwp.gov.uk/docs/res/eedp/eedp-full-report.pdf
- 107 WikiHow (2012) How to Fake Your Identity Online [online]. Available from: http://www.wikihow.com/Fake-Your-Identity-Online
- 108 McCaskill, S. (2012) Filing reveals 83 million fake facebook accounts 2 August 2012. TechWeek Europe [online]. Available from: http://www.techweekeurope.co.uk/news/fake-facebook-accounts-83m-advertising-88243
- 109 Jong, N. (2010) Why the Number of People Creating Fake Accounts and Using Second Identity on Facebook are Increasing. Online Conference on Networks and Communities 2010 [online]. Available from: http://networkconference.netstudies.org/2010/05/why-the-number-of-people-creating-fake-accounts-and-using-second-identity-on-facebook-are-increasing/
- 110 Krotoski, A. (2012) Online Identity: Is authenticity of anonymity more important? *The Guardian* [online]. Available from: http://www.guardian.co.uk/technology/2012/apr/19/online-identity-authenticity-anonymity
- III Burnett, R., Consalvo, M. and Ess, C. (2011) The Handbook of Internet Studies. Wiley-Blackwell.
- 112 The i in online (2011) Child Privacy Report: Young People's use of social technology and their attitudes towards data protection. Children and Online Privacy Survey [online]. Available from: http://www.theiinonline.org/wp-content/uploads/2011/07/The-i-in-online-Child-Privacy-Survey-July-20113.pdf
- 113 Odom, W., Sellen, A., Harper, R. and Thereska, E. (2012) Lost in Translation: Understanding the possession of digital things in the cloud. Proceedings of the SIGCHI (Special Interest Group on Computer-Human Interaction) 2012 Association for Computing Machinery annual conference on Human Factors in Computing Systems, 781–790 [online]. Available from: http://research.microsoft.com/pubs/158029/odom2012.pdf
- 114 Harb, Z. (2011) Arab revolutions and the social media effect. Journal of Media and Culture (M/C Journal),14(2) [online]. Available from: http://journal.media-culture.org.au/index.php/mcjournal/article/viewArticle/364
- 115 McKinsey Global Institute (2011) Big Data: The next frontier for innovation, competition, and productivity [online]. Available from: http://www.mckinsey.com/insights/mgi/research/technology_and_innovation/big_data_the_next_frontier_for_innovation
- 116 Joseph Rowntree Reform Trust (2010) State of the Nation Survey [online]. Available from: http://www.jrrt.org.uk/sites/jrrt.org.uk/files/documents/son-2010-summary-of-findings.pdf
- 117 United Nations Office on Drugs and Crime (2012) The Use of the Internet for Terrorist Purposes. New York: United Nations [online]. Available from: http://www.unodc.org/documents/frontpage/Use_of_Internet_for_Terrorist_Purposes.pdf
- 118 Anderson, R., Barton, C., Böhme, R., Clayton, R., van Eeten, M. J. G., Levi, U., Moore, T. and Savage, S. (2012) Measuring the Cost of Cybercrime. Workshop on the Economics of Information Security 2012 [online]. Available from: http://weis2012.econinfosec.org/papers/Anderson_WEIS2012.pdf
- 119 Seybert, H. and Lööf, A. (2010) Internet usage in 2010 Households and Individuals. Eurostat Data in focus 50/2010 [online]. Available from: http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-QA-10-050/EN/KS-QA-10-050-EN.PDF
- 120 Cabinet Office (2011) The Cost of Cybercrime: A Detica report in partnership with the Office for Cyber Security and Information Assurance in the Cabinet Office. London: Cabinet Office [online]. Available from: http://www.cabinetoffice.gov.uk/sites/default/files/resources/the-cost-of-cyber-crime-full-report.pdf
- 121 Scottish Government (2012) Scottish Crime and Justice Survey 2011, Edinburgh: Scottish Government [online]. Available from: http://www.scotland.gov.uk/Topics/Statistics/Browse/Crime-Justice/crime-and-justice-survey
- 122 Insley J. (2010) Need a false identity? It'll cost a couple of quid. The Guardian [online]. Available from: http://www.guardian.co.uk/money/2010/may/16/false-identity-cost
- 123 Banerji, R. (2012) David Helmer: 28 years on the run. 3 September 2012. London: BBC [online]. Available from: http://www.bbc.co.uk/news/magazine-19331209#
- 124 Sarewitz, D. and Karas, T. H. (2006) *Policy Implications of Technologies for Cognitive Enhancement*. Arizona State University: Consortium for Science, Policy & Outcomes.
- 125 Samdani, T. (2012) Xenotransplantation. Medscape Reference [online]. Available from: http://emedicine.medscape.com/article/432418-
- 126 Gasson, M. N. (2010) Human enhancement: Could you become infected with a computer virus? *Technology and Society (ISTAS)*, 2010 Institute of Electrical and Electronics Engineers (IEEE) International Symposium, 61–68 [online]. Available from: http://www.personal.reading.ac.uk/~sis04mng/research/GASSON_ISTAS2010.pdf

- 127 Ahuja, D. and Singh, B. (2012) Brain fingerprinting. *Journal of Engineering and Technology Research*, 4(6), 98–103 [online]. Available from: http://www.academicjournals.org/JETR/PDF/pdf%202012/Nov/Ahuja%20and%20Singh.pdf
- 128 Farwell, L. A., Richardson, D. C. and Richardson, G. (2011) Brain fingerprinting field studies comparing P300-MERMER and P300 ERPs in the detection of concealed information. *Psychophysiology*, 48, S95–96.
- 129 Tremmel, P. V. (2010) Reading Terrorists' Minds About Imminent Attack. Northwestern University. Chicago [online]. Available from: http://www.northwestern.edu/newscenter/stories/2010/07/brainwaves.html
- 130 Rosenfeld, J. P. (2005) Brain fingerprinting: A critical analysis. Scientific Review of Mental Health Practice, 4(1), 20–37.
- 131 McGregor, S. (2012) Features of a Consumer Society. McGregor Consulting Group [online]. Available from: http://www.consultmcgregor.com/documents/resources/features_of_consumer_society.pdf
- 132 Vogel, D. (1975) The corporation as government: Challenges and dilemmas. Polity, 8, 5–37.
- 133 Phillips, C. (2003) How do Consumers Express their Identity Through the Choices of Products They Buy? University of Bath Working Paper 17 [online]. Available from: http://www.bath.ac.uk/management/research/pdf/2003-17.pdf.
- 134 Open University (2008) Branded Consumption and Social Identification: Young People and Alcohol. Open University [online]. Available from: http://www.open.ac.uk/socialsciences/identities/findings/Griffin.pdf
- 135 Kasser, T. and Kanner, A. (2003) *Psychology and Consumer Culture: The struggle for a Good Life in a Materialistic World.* American Psychological Association [online]. Available from: http://www.apa.org/pubs/books/4317024.aspx
- 136 Further information available at [online]: http://www.occupytogether.org/
- 137 Halsey, A. H. and Webb, J. (2000) Twentieth Century British Social Trends. Basingstoke: Macmillan.
- 138 Heath, A. F., Martin, J. and Elgenius, G. (2007) Who do we think we are? The decline of traditional social identities. In Park, A. et al. (Eds.) British Social Attitudes: The 23rd Report Perspectives on a Changing Society. London: Sage.
- 139 Heath, A., Curtice, J. and G. Elgenius (2009) Individualisation and the decline of class identity. In Wetherell, M. (Ed) *Identity in the 21st Century:* New Trends in Changing Times. Basingstoke: Palgrave.
- 140 Savage, M. (2007) Changing social class identities in post-war Britain: Perspectives from mass-observation. Sociological Research Online, 12(3), 6 [online]. Available at: http://www.socresonline.org.uk/12/3/6.html#halseywebb2000
- 141 Alvaredo, F., Anthony B. A., Thomas, P. and Emmanuel, S. (2012) *The World Top Incomes Database*. Paris School of Economics [online]. Available from: http://g-mond.parisschoolofeconomics.eu/topincomes
- 142 Institute for Fiscal Studies (2012) Living Standards, Poverty and Inequality in the UK: 2012 [online]. Available from: http://www.ifs.org.uk/comms/comm124.pdf
- 143 Institute for Fiscal Studies (2012) Fiscal Facts: Poverty, Inequality and Living Standards [online]. Available from: http://www.ifs.org.uk/fiscalFacts/povertyStats
- 144 Dorling, D. (2005) Human Geography of the UK. London: Sage.
- 145 Joseph Rowntree Trust (2012) What is Meant by 'Poverty'? [online]. Available from: http://www.jrf.org.uk/sites/files/jrf/poverty-definitions.pdf
- 146 Fahmy, E., Gordon, D., Dorling, D., Rigby, J. and Wheeler, B. (2011) Poverty and place in Britain, 1968-99. Environment and Planning A, 43(3), 594-617.
- 147 My Fair London (2012) Why Inequality Matters. Centre for Labour and Social Studies and The Equality Trust [online]. Available from: http://www.equalitytrust.org.uk/sites/default/files/Why%20Inequality%20Matters.pdf
- 148 Wilkinson, R. and Pickett, K. (2009) The Spirit Level: Why Equality is Better for Everyone. London: Penguin.
- 149 Newton, K. (2006) Political support: Social capital, civil society and political and economic performance Political Studies, 54, 846–864.
- 150 Uslaner, E. (2008) Corruption, Inequality and the Rule of Law. Cambridge: Cambridge University Press.
- 151 Wilson, R. A. and Homenidou, K. (2012) Working Futures 2010–2020, Evidence Report 4, Revised August 2012 for UK Commission for Employment and Skills. Coventry: Institute for Employment Research [online]. Available from: http://www.ukces.org.uk/assets/ukces/docs/publications/evidence-report-41-working-futures-2010-2020.pdf
- 152 European Commission (2004) Eurobarometer 44.3 Results of an Opinion Survey. Luxembourg: Office for Official Publications of the European Communities.
- 153 Burfino, A. and Thompson, (2007) Belonging in Contemporary Britain, Commission on Integration and Cohesion: London.
- 154 Fresque-Baxter, J. A. and Armitage, D. (2012) Place identity and climate change adaptation: A synthesis and framework for understanding. WIREs Climate Change, 22–23.
- 155 Adger, N. (2011) This must be the place: Underrepresentation of identity and meaning in climate change decision-making. *Global Environmental Politics*, 22(2), 1–25.
- 156 Easthope, H. (2009) Fixed identities in a mobile world? The relationship between mobility, place, and identity. *Identities: Global Studies in Culture and Power*, 16, 61–82.
- 157 Lewicka, M. (2011) On the varieties of people's relationships with places: Hummon's typology revisited. Environment and Behavior, 43(5), 676–709.
- 158 Goodings, L., Locke, A. and Brown, S. (2007) Social networking technology: Place and identity in mediated communities. *Journal of Community and Applied Social Psychology*, 17(6), 463–476.
- 159 Nash, N. (2008) Future Issues in Socio-technical Change for UK Citizenship: The Importance of 'Place'. Document commissioned as part of the UK Department for Children, Schools and Families' Beyond Current Horizons project, led by Futurelab.
- 160 Wellman, B. (2002) Little Boxes, Glocalization, and Networked Individualism. Digital Cities II: Computational and Sociological Approaches. Lecture Notes in Computer Science, 2362/2002, 337-343.
- 161 Augusto, J., Nakashima, H. and Aghajan, H. (2009) Ambient intelligence and smart environments: A state of the art. In Nakashima, H. et al. (Eds.), Handbook of Ambient Intelligence and Smart Environments [online]. Available from: http://cs.gmu.edu/~jpsousa/classes/895/readings/0003.pdf
- 162 Butler, C., Parkhill, K. A. and Pidgeon, N. F. (2012) Briefing Note: Transforming the UK Energy System: Public Values, Attitudes and Acceptability Interim Findings. Cardiff University: Understanding Risk Research Group.
- 163 Department for Energy and Climate Change (2012) UK Renewable Energy Roadmap Update. London: DECC [online]. Available from: http://www.decc.gov.uk/assets/decc/11/meeting-energy-demand/renewable-energy/7382-uk-renewable-energy-roadmap-update.pdf

- 164 Nash, N., Lewis, A. and Griffin, C. (2009) Not in our front garden: Land use conflict, spatial meaning and the politics of naming place. *Journal of Community and Applied Social Psychology*, 19, 1–13.
- 165 Steadman. R. C. (2002) Toward a social psychology of place: Predicting behaviour from place-based cognitions, attitude, and identity. *Environment and Behavior* 43, 561–581.
- 166 Ward-Thompson, C., Roe, J., Aspinall, P., Mitchell, R., Clow, A. and Miller, D. (2012) More green space is linked to less stress in deprived communities: Evidence from salivary cortisol patterns. *Landscape and Urban Planning*, 105, 221–229.
- 167 Dunnett, N., Swanwick, C. and Woolley, H. (2002) Improving Urban Parks, Play Areas and Green Spaces. London: Office of the Deputy Prime Minister.
- 168 Commission for Architecture and the Built Environment (2010) Community Green: Using Local Spaces to Tackle Inequality and Improve Health. London: CABE [online]. Available from: http://www.designcouncil.org.uk/Documents/Documents/Publications/CABE/community-green-full-report.pdf
- 169 Commission for Architecture and the Built Environment (CABE) (2004) The Value of Public Space: How High Quality Parks and Public Spaces Create Economic, Social and Environmental Value. London: CABE [online]. Available from: http://webarchive.nationalarchives.gov.uk/20110118095356/http://www.cabe.org.uk/files/the-value-of-public-space.pdf
- 170 Department for Communities and Local Government (2011) English Housing Survey: Households 2010–2011. London: DCLG [online]. Available from: http://www.communities.gov.uk/documents/statistics/pdf/2173283.pdf
- 171 Department for Communities and Local Government (2006) State of English Cities. London: DCLG [online]. Available from: http://webarchive.nationalarchives.gov.uk/20120919132719/www.communities.gov.uk/documents/regeneration/pdf/154184.pdf
- 172 Fenton, A. (2011) Housing Benefit reform and the spatial Segregation of Low-income Households in London. Cambridge: Cambridge Centre for Housing and Planning Research [online]. Available from: http://www.cchpr.landecon.cam.ac.uk/outputs/detail.asp?OutputID=240
- 173 Atkinson, R. and Flint, J. (2004) Fortress UK? Gated communities, the spatial revolt of the elites and time-space trajectories of segregation. *Housing Studies*, 19(6), 875–892.
- 174 Blandy, S. (2006) Gated communities in England: Historical perspectives and current developments. GeoJournal, 66, 15–26.
- 175 Coleman, R. (2009) 'They just look wrong': Visualizing 'crime' and grime in the post social city. Criminal Justice Matters, 78, 29–31.
- 176 Broughton, K., Berkeley, N. and Jarvis, D. (2011) Where next for neighbourhood regeneration in England? Local Economy, 26(2), 82-94.
- 177 Defra (2012) UK Climate Change Risk Assessment. London: Defra [online]. Available from: http://www.defra.gov.uk/publications/files/pb13698-climate-risk-assessment.pdf
- 178 Brown, S. and Walker, G. (2008) Understanding heat wave vulnerability in nursing and residential homes. *Building Research and Information*, (36)4, 363–372.
- 179 Defra (2012) UK Climate Change Risk Assessment Evidence Report. London: Defra [online]. Available from: http://www.defra.gov.uk/environment/climate/government/risk-assessment/
- 180 Department for Communities and Local Government (2012) National Planning Framework. London: DCLG
- 181 Upham, P., Whitmarsh, L., Poortinga, W., Purdam, K., Darnton, A., McLachlan, C. and Devine-Wright, P. (2009) Public Attitudes to Environmental Change: A Selective Review of Theory and Practice. A Research Synthesis for The Living with Environmental Change Programme. Swindon: Research Councils UK [online]. Available from: http://www.lwec.org.uk/sites/default/files/001_Public%20attitudes%20to%20environmental%20change_final%20report_301009_1.pdf
- 182 Defra (2009) The Government's Response to Sir Michael Pitt's Review of the Summer 2007 Floods: Progress Report December 2009. Londo: Defra [online]. Available from: http://archive.defra.gov.uk/environment/flooding/documents/risk/pitt-progress091215.pdf
- 183 Foresight (2010) Report 1.3: Ethical, Social and Behavioural Impacts of Climate Change. International Dimensions of Climate Change. London: Government Office for Science [online]. Available from: http://www.bis.gov.uk/assets/foresight/docs/international-dimensions/11-1018-ethical-social-behavioural-impacts-of-climate-change
- 184 Duffy, B., Hall, S. and Williams, M. (2005) Who Do You Believe? Trust in Government Information [online]. Available from: http://www.ipsos-mori.com/DownloadPublication/239_sri_who_do_you_believe_112005.pdf
- 185 National Centre for Social Research (2011) British Social Attitudes Survey 28th Report [online]. Available from: http://ir2.flife.de/data/natcen-social-research/igb_html/index.php?bericht_id=1000001&index=&lang=ENG
- 186 Fennema, M. and Tillie, J. (2001). Civic community, political participation and political trust of ethnic groups. Connections, 24(1), 26–41.
- 187 Great Britain. Parliament. House of Commons Library (2001) UK Election Statistics: 1945–2000. Research Paper 01/37. London: TSO.
- 188 Great Britain. Parliament. House of Commons Library (2001) General Election Results, 7 June 2001. Research Paper 01/54. London: TSO.
- 189 Great Britain. Parliament. House of Commons Library (2005) General Election Results, 2005. Research Paper 05/33. London: TSO.
- 190 Great Britain. Parliament. House of Commons Library (2010) General Election Results, 2010. Research Paper 05/33. London: TSO
- 191 Great Britain. Parliament. House of Lords (2009) Constitution Committee Second Report: Surveillance: Citizens and the State. London: TSO.
- 192 Tilley, J. R. (2005) Research Note: Libertarian-authoritarian value change in Britain, 1974–2001. Political Studies, (53), 442–453.
- 193 Putnam, R. (1993) Making Democracy Work: Civic Traditions in Modern Italy. Princeton, New Jersey: Princeton University Press.
- 194 Knack, S. and Keefer, P. (1997) Does social capital have an economic payoff? A cross-country investigation. *The Quarterly Journal of Economics*, 1251–1288.
- 195 Office for National Statistics (2009) Working Paper: Measuring Societal Wellbeing in the UK. London: ONS [online]. Available from: http://www.ons.gov.uk/ons/guide-method/user-guidance/well-being/publications/working-paper--measuring-societal-well-being-in-the-uk.pdf
- 196 Taylor-Gooby, P. and Stoker, G. (2011) The coalition programme: a new vision for Britain or politics as usual? The Political Quarterly, 82(1), 4–15.
- 197 Department for Business, Innovation and Skills and HM Treasury (2010) The Path to Strong, Sustainable and Balanced Growth. London: BIS and HMT.
- 198 Heath, A. and Roberts, J. (2008) British Identity: Its Sources and Possible Implications for Civic Attitudes and Behaviour. Research report for Lord Goldsmith's Citizenship Review [online]. Available from: http://webarchive.nationalarchives.gov.uk/+/http://www.justice.gov.uk/docs/british-identity.pdf
- 199 Heath, A. and Tilley, J. R. (2005) British national identity and attitudes towards immigration. International Journal on Multicultural Societies, 7(2), 119-132.
- 200 Bechhofer, F. and McCrone, D. (2010) Choosing national identity. Sociological Research Online, 15(3) [online]. Available from: http://www.socresonline.org.uk/15/3/3.html

- 201 Tilley, J. R. and Heath, A. (2007) The decline of British national pride. The British Journal of Sociology, 58(4), 661–678.
- 202 Home Office (2010) Citizenship Survey. London: Home Office [online]. Available from: http://www.esds.ac.uk/findingData/snDescription.asp?sn=6733#doc
- 203 Nandi, A. and Platt, L. (2012) How Diverse is the UK? How British is the UK? Working Paper for ISER/ Department of Quantitative Social Science. Colchester: University of Essex [online]. Available from: https://www.iser.essex.ac.uk/2012/06/30/ethnic-minorities-living-in-the-uk-feel-more-british-than-white-britons
- 204 Choudry, T. and Fenwick, H. (2011) *The Impact of Counter-terrorism Measures on Muslim Communities*. Research report 72. London: Equality and Human Rights Commission [online]. Available from: http://www.equalityhumanrights.com/uploaded_files/research/counter-terrorism_research_report_72.pdf
- 205 Cabinet Office (2011) Civil Service Reform Part 2 Improving Policy Making Capability. London: Cabinet Office [online]. Available from: http://www.civilservice.gov.uk/reform/part-2-improving-policy-making-capability
- 206 Langager, S. (2004) Strange alliances on the threshold of the digital age. Nordisk Pedagogik, 24, 56-69.
- 207 Rheingold, H. (2002) Smart Mobs: The Next Social Revolution. New York: Perseus Publishing.
- 208 Schwarz, O. (2009) Good young nostalgia: Camera phones and technologies of self among Israeli youths. *Journal of Consumer Culture*, 9(3), 348–376.
- 209 Cabinet Office (2012) Test, Learn, Adapt: Developing Public Policy with Randomised Controlled Trials. London: Cabinet Office [online]. Available from: http://www.cabinetoffice.gov.uk/resource-library/test-learn-adapt-developing-public-policy-randomised-controlled-trials
- 210 Nigbur, D., Lyons, E. and Uzzell, D. (2010) Attitudes, norms, identity and environmental behaviour: Using an expanded theory of planned behaviour to predict participation in a kerbside recycling programme. *British Journal of Social Psychology*, 49(2), 259–284.
- 211 Briggs, D. (2010) 'True stories from bare times on road': Developing empowerment, identity and social capital among urban minority ethnic young people in London, UK. Ethnic and Racial Studies, 33(5) Special Issue: Young People, Ethnicity and Social Capital. Taylor and Francis Group.
- 212 Bostrom, N. and Savulescu, J. (2009) Human Enhancement. New York: Oxford University Press.
- 213 Lory, B. E. H. (2010) Using Facebook to Assess candidates during the recruiting process: Ethical implications. NACE Journal, September 2010 [online]. Available from: https://www.class.umn.edu/crimson/dependancies/multimedia/Facebook_in_Hiring_Ethical_Implications.pdf
- 214 Calvitti, R., Saez, A. and Snyder, A. (2011) *Project 3: Emerging Technologies; Biometrics: Face Recognition.* Temple University [online]. Available from: http://www.enotes.com/forensic-science/facial-recognition
- 215 Boyd, D. (2012) Apophenia: Making Connections where None Previously Existed [online]. Available from: http://www.zephoria.org/thoughts/archives/2011/09/12/guilt-through-algorithmic-association.html
- 216 Muir, R. and Wetherell, M. (2010) *Identity, Politics and Public Policy*. Institute for Public Policy Research [online]. Available from: http://www.open.ac.uk/socialsciences/identities/files/identity_politics_and_public_policy.pdf

All URLs accessed on 4 January 2013 unless otherwise stated.

Printed in the UK on recycled paper with a minimum HMSO score of 75

First published January 2013

The Government Office for Science

© Crown copyright. URN 13/523

Printed in the UK on recycled paper with a minimum HMSO score of 75

First published January 2013

The Government Office for Science

© Crown copyright. URN 13/523