



The Centre for Future Studies

The Future of British Migration

Foresight Study

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1. Introduction

Emigration is a life-changing decision. It involves a range of weighty judgments such as, will life be better in a new country; are the opportunities too good to miss; can we cope with a new language and culture; will partners find employment and children find schools; can close friends and family be left behind?

Until recently, Britain was thought of as an “emigration nation”. Rates of emigration surpassed those of immigration. But, since the mid 1960s, there has been a secular decline in the rate of emigration, according to one study by economist Tim Hatton of the University of Essex.

Traditional forces driving emigration – namely poverty and unemployment – have fallen by the wayside. The British economy has outperformed expectations, encouraging people to stay. At the same time, countries around the world have shored up more stringent immigration controls. The phenomenon of mass migration seems a distant memory. In the early 1980s, according to Migration Watch UK, Britain became a country of net immigration for the first time in its history.

Instead, the character of emigration today is more complex and multifaceted – but more interesting as a result. Different types of people, according to age and occupation, for instance, emigrate for different reasons, both for reasons of material gain and personal enrichment. They go to different places – from Spain to America to New Zealand. And, emigration takes different forms, both temporary and permanent.

People’s occupations have a bearing on how they see emigration. A survey by public relations firm Lansons Communications for this study showed that those in skilled professions would consider moving abroad if they could improve their standard of living. However, those in less skilled areas, such as service industries, do not have such high expectations of material gain. They consider emigration as a way to experience something new and exciting, a form of personal enrichment.

In contrast, other workers, such as City and finance professionals, see emigration more as a route to reducing high levels of stress. Age is also a factor: young people are less concerned with material factors than older people.

The types of people emigrating are also more diverse compared to the past, mainly because of the greater range of relatively new opportunities on offer. A British overseas student, part of the 8000 or so who study abroad every year, is very different to a well-paid, middle-aged executive sent abroad by their company as an “intra-company transferee”. A self-employed construction worker migrating to New York is very different again to a “retirement migrant” who retreats to a second home in Australia. The well-off financial “day-trader” who realises he can continue his job from a lap-top near a beach in the Caribbean, rather than offices on Liverpool Street in the City, is perhaps a special species of “knowledge emigrant”.



Forms of emigration are equally becoming more diverse. Governments are keen to grant temporary one or two-year work visas to emigrants, in order to overcome skills shortages and better manage inflows of immigrants. Companies for their part often prefer the cheaper option of sending employees on temporary expatriate assignments.

The picture becomes more complex when we think about future scenarios – the central purpose of this report. New changes will occur within the economy, work, the structure of British society, British cultural values and technology. These forces are not likely to have a predictable, blanket affect on British emigration.

Rather, different groups within society will respond in different fashion to these forces for change. They may contemplate emigration for reasons that are barely recognisable today. And, they may emigrate in new ways and to new destinations unfamiliar to us today.

This report therefore considers the present and future of British emigration. It is structured in the following way. After this introduction, section two examines the current picture of British emigration. It considers the following main issues:

- Types of emigrants
- Motivations for contemplating emigration
- Second thoughts about emigration
- Destinations
- Perceptions of Britain

To reach an understanding of the character of emigration in the future, the report then considers the future of a range of different variables. These are discussed in section three. These are:

- More single people
- The rise of global friendships
- A thirst for lifestyle change
- Technological advances: IT, robotics, augmented reality, holographic innovations, nanotechnology and genetics
- The future of travel
- Globalisation
- Money
- Work
- The domestic economy
- Social values

The Centre for Future Studies believes that the character of British emigration in the future will be very different. We discuss the most likely scenarios in the years 2012 and 2020. These are detailed in the final section, and summarised below. To help make these come alive, we also include in the final section a range of profiles of the typical emigrants of the future.



In 2012:

Particular groups will contemplate emigration to be with friends and potential partners met via the next generation Internet. “Global friendships” will form the basis of new migratory patterns among particular sections of the population.

The reduction of stress will become a major primary driver of emigration among certain sections of the population, such as busy professionals in global industries.

Destinations will seem attractive not because they show high rates of economic growth, but because they have high GHs – Gross Happiness Levels.

Among particular groups – the young, free, single and well-off – emigration will take place increasingly on the basis of lifestyle change.

The personal impact that migrants make on the environment will be calculated and charged to them, under new “sustainable development” policies.

The idea of moving house or country because of a new job will make less sense. The emergence of the next generation Internet, and associated communications technology, will reduce dependence on physical offices.

In 2020:

Many workers, in fields as diverse as medicine and engineering, will be able to do their work thousands of miles away from work locations, because of advances in communications and robotics.

The logistics of migration will have become technologically-enabled in completely new ways, involving e-money, e-passports, e-enabled luggage, sub-orbital airplanes, smart glasses, augmented reality, robots and language translation technologies.

British people will emigrate on the basis of genetic decisions. (What is good for their health).

Technologies such as holograms will help overcome a major reason why people have major second thoughts about migration – leaving friends and family behind.

Older people will retire abroad to “smart homes” where they will be assisted by personal care robots.



2. British emigration today

Types of emigrants

British emigrants are not a homogeneous mass, but may be considered in terms of distinct groups.

The main ones are:

Temporary migrants who travel overseas for months at a time. They may pay rent, and work in particular places, for months at a time. Groups under this heading include “gap year” students – of which there were 25,000 over 2001-2002, according to Universities and Colleges Admission Service (UCAS), many of them travelling; and workers taking a year out of work.

Among young people, a great deal of social status now attaches itself to travelling. Although this is not migration in the traditional sense of the word, this prolonged travelling exposes people to the possibility of living abroad later in life. For students, “gap years” abroad are acknowledged to be enriching experiences and are encouraged by colleges and parents.

British students on foreign exchanges. It is expected that around 8,400 students will go abroad in 2003, according to a recent Guardian article.

Numbers of overseas students are set to rise because of the new governmental focus on attracting educated labour. There is an increasing “get them while they are young” mentality. For example, to encourage a greater intake of foreign students, Germany, France and Norway now allow foreign students to enter their workforces upon graduation.

Partners and spouses who go abroad to continue relationships and family lives.

Intra-company transferees – professional expatriates sent abroad by their companies. These may be long-term permanent ones or, increasingly, short-term temporary expatriates. In 2002, around 55,000 British employees worked in America as “intra-company transferees”, up from 25,000 in 1997, according to the US Bureau of Citizenship and Immigration Service.

Short-term temporary workers granted a work visa by their host country. They may be taking up job offers by overseas employers. For example, according to figures by the Australian government, 7,100 British workers were granted four-year temporary visas to enter Australia over 2000-2001.

Self-employed “knowledge workers” who realise they can do their work from any location abroad using the Internet and wireless networks. This group is a small minority, and includes those working in finance and the creative industries.



Retirement migrants – retirees who retire abroad. Over the last six years, according to figures by the Department of Work and Pensions, around 27,000 new people a year have claimed a British pension abroad, one measure of retirement migration.

Motivations for contemplating emigration

The motivations behind people's decision to emigrate are also increasing varied.

A recent survey of European businesses by professional services firm PricewaterhouseCoopers showed that “improved pay/income” and “improved living standard” influence employees the most in their decision to become professional expatriates.

Retirees, by contrast, move abroad for non-work, non-material factors. A recent study called *Sunset Lives* found that, among British retirees going to Southern Europe, the most popular motivations were: climate and environment; pace of life and health; and lower living costs.

Another common motivation among some groups, such as those in the services, leisure and retail industries, according to a survey by public relations firm Lansons Communications, is to gain an exciting new experience. This group of workers have fewer opportunities to quickly climb the career ladder. They can only expect minor promotions and minor pay rises.

Second thoughts about emigrating

Since emigration is a big decision to make, it is not surprising that most people weigh up what they stand to lose, or what might go wrong.

A survey, also by PricewaterhouseCoopers, found that issues concerning their spouse or partner's career preoccupy potential professional expatriates the most (see *Managing a Virtual World*, 2000). One dilemma is that employees may be offered a higher salary for moving abroad, but cannot guarantee that their partner will get work. Since both depend on a “dual-career” income the extra salary is rarely enough to compensate.

The Lansons Communications survey mentioned earlier found that those in unskilled, low paid professions tend to worry more about the challenges involved with emigration. For instance, 53% of those surveyed expressed a worry about language, while only 30% of the highest paid professional group did. Similarly, 54% were worried about the logistics of moving abroad, while only 39% of professionals expressed such worries.

This group is also almost twice as much likely to worry about making new friends, compared to professionals (35% to 18%). Interestingly, healthcare was the only issue where there was not substantial differences of opinion between the two groups.



Worries tend to decrease with age, the survey found, with only two exceptions. Those over 65 tend to worry about the logistics of moving house, although they worry less than

16-34 year olds. And, worries about healthcare remain roughly the same for all age groups, perhaps surprisingly.

A survey of existing expatriates by the Centre for Future Studies asked respondents to mention why they least liked living abroad. The overwhelmingly most popular answer, mentioned by 70%, was “missing family and friends”. Culture (35%), food and drink (27%) and the lack of entertainment (25%), were further popular answers.

Destinations

Where do emigrants settle?

- Overall, the most popular destinations, according to government immigration figures, are the US (a yearly average of 14,300 over the last decade), Germany (14,000) and Australia (11,200).
- The most popular destination for intra-company transferees is the US, with around 55,000 being sent there every year, as mentioned earlier. The US also admits very large numbers of temporary British workers – over 100,000 each year. Australia is also popular for temporary work emigrants: more British people receive temporary visas than anywhere else.
- Retirement migrants’ most favourite countries, according to government figures on British pensions paid abroad, are Australia (24% of all pensioners), Canada (16%) and the US (13.5%).
- It is interesting to compare tourist destinations. According to the Association of British Travel Agents, the US is the fourth most popular tourist destination (after Spain, France and Greece). Australia and Canada, two other popular destinations for migrants, do not figure in the top ten.



The US and Australia: a brief commentary

The US and Australia are perhaps the two countries that hold a special place in the hearts of British emigrants. On many levels, they have similarities. Historically, waves of British emigrants have played a great role in shaping their societies. Today, there are close affinities between all of them in politics, economics and culture. They offer reasonably open door immigration policies. They are both highly multicultural societies – more so than Britain – that have also had to come to terms with how they have dealt with indigenous populations.

But they offer different lifestyle choices, and their joint popularity perhaps reveals the heterogeneous nature of British emigration. It is well known anecdotally in Britain that America, more than any other country in the world, offers immediate improvements in pay in many professions – teaching, medicine and law spring to mind. Australia, however, is a minor player economically and politically on the world stage and has no imperial past. It has built its identity far more around outdoor leisure, sport, popular culture and non-work values. Essentially, America and Australia offer a trade-off between values of work and leisure.

Perceptions of Britain

A popular notion in Britain is that people emigrate because they perceive that “the country is going to the dogs”.

However, while many British have strong feelings about the direction the country is going, such feelings do not automatically translate into an impulse to migrate.

After all, there are many different ways of responding to unloved aspects of British society, from (at one extreme), joining a fascist political party, to scowling at the television, writing letters to the local newspaper, taking part in a labour dispute or finding a clever way to avoid tax. Or, probably more commonly, there is plain old apathy and disengagement.

In the CFS survey of expatriates, broader social issues did not figure highly in people’s reasons for emigration.

Issues such as public services, tax and crime were mentioned by only a minority of people, in some cases less than 10% of all respondents. The old favourite, the weather, is far more likely to motivate people to move abroad, being mentioned by a much higher percentage – around a third – of those who said they were explicitly dissatisfied with Britain.

3. The future of British society: variables that will influence emigration in the future

More single people

The structure of British society is set to change dramatically in the next few decades. A major trend is the rise of single households. According to the National Census, published in 2003:

- The number of people living on their own in Britain rose from 26% in 1991 to 30% in 2001. This could further rise to 35% in 2012 and 40% in 2020.
- Married couples are making up less of the population, 50.7% in 2001, down from 68% in 1971. This could fall to 45% in 2012 and 40% in 2020.
- Divorcees now make up 8.2% of the population, up from 1.3% in 1971. They may make up 12% of the population in 2012 and 15% in 2020.
- Parallel changes are happening in the US. For the first time in history, there are now more adults living alone (25.8% of the population) than nuclear families (married couples living with children under 18, now 23.5%) according to the US Census Bureau. This change occurred over the 1990s.

The rise of the “singleton society” does not necessarily mean that individuals are completely relationship-free, according to the Future Foundation. In a recent analysis of the British Household Panel Survey, they argue that around a quarter of those in the 21-25 age bracket classed as “single”, and around a third in the 30-55 age group, are more accurately classed as LATs – Live Apart Together. These people may live alone but they are in relationships.

However, it is clear that the “singleton society” is a reality that is having a tangible influence on Britain. This can be seen in relatively trivial things, such as the rise of pre-packaged meals. More substantially, the dramatic rise of dating services is a corresponding trend. Also, the singleton society tends to be more insecure as individuals feel more alone and isolated.

There will be important consequences for migration. Single people are less tied down than those with families – it is easier for them to take the big step of emigrating abroad.

Also, the singleton society of the future will comprise people attempting to reach out to make new contacts and friendships. This is already having an international dimension via the Internet, as we see the rise of “global friendships”, (see below), an important parallel trend.



The rise of “global friendships”

In connecting people around the world, the Internet is fast facilitating the rise of “global friendships”. This is the phenomenon where people meet through chat rooms, friendship rooms or specialist dating services. They remain in contact and become friends. Already, the Internet is full of individuals who extol the virtues of these friendships and fight off claims that they are somehow “not real”.

The initial worry among some psychologists was that endless chatting over the Internet would lead to people’s isolation and loneliness.

A study by Robert Kraut of the Human-Computer Interaction Institute at Carnegie Mellon University, published in *American Psychologist* in 1998, conveyed this message. As a commentary of the study in the *American Psychological Association Monitor* suggested:

“The technology that has allowed people to keep in closer touch with distant family members and friends, to find information quickly and to develop friendships with people from around the world, is also replacing vital day-to-day human interactions. A computer monitor can’t give you a hug or laugh at your jokes. And some psychologists worry that the Internet’s widening popularity will lead to further isolation among a population that, although gravitating toward virtual communities in cyber-space, seems to have lost a genuine sense of belonging and connection.”

However, a study by Pew Internet and the American Life Project, involving 3500 adults in 2003, found that Internet users are more sociable: they visit friends and family offline more than non-Internet users.

And, what the initial studies did not foresee was that, when people strike up friendships over the Internet, they then speak to them over the phone and visit them in person.

A study by Macquarie University in 2000 studied 116 Internet users, for instance. It found that half made telephone calls to each other, and one in three Internet users went on to meet their cyber friends in person. According to the coordinator of the research, psychologist-trainee Rebecca Merz:

"This suggests that while email and chat rooms are the most common modes of communication, traditional means of communication are used in the majority of relationships to supplement communication via the Net”.

The Internet, then, is already boosting travel between new friends and has the potential to become a new driver of emigration, especially when coupled with the rise of the singleton society outlined above.



A thirst for lifestyle change

In the absence of strong institutions that bind people together, such as the church, trade union or political party, British people will base their identities far more around consumption and the “politics of lifestyle”.

British people will be constantly on the lookout to change their lifestyle at the blink of an eye. This will alter their perceptions of emigration, which will become attractive because it offers a new lifestyle – perhaps based around relaxation and less stress, outdoor activity or emotional thrills, such as those embodied in extreme sports.

Technological advances

As Andy Grove, chairman of Intel corporation, the chip maker, recently said in Business Week magazine, “technology is unstoppable.” How will technology develop in the future?

IT

Information technology involves a suite of technologies comprised of chips that provide computing power, hardware, software, and networks of computers in the shape of the Internet and intranets. The emerging technologies around IT today include:

- The advent of wireless data networks, as increasingly sophisticated data can be sent over networks to smarter new devices.
- “Wi-Fi hotspots” in public places, enabling individuals to log onto the Internet via their laptops or mobile devices.
- “Telemetry” – device-to-device communication. For instance, new paper printers are designed to be able to relay messages to their manufacturer if they break down.
- The pooling of the computing power of networks – “grid computing” – to solve problems that need considerable data processing, in areas such as physics, or to support Internet services such as global on-line gaming.
- The embedding of chips in everyday objects, either in the house (to create “smart homes”), or in manufactured goods so that they can be traced throughout the supply chain and in the shop floor environment – the advent of Radio Frequency Identification (RFID) chips.
- The incorporation of satellite navigation into systems, so that taxi drivers for example can be instructed where to take passengers.



- Innovations in Internet-based software and usability. The vision of the “semantic web” is that web pages will contain more detailed information so that, for example, future Internet searches will be more useful. “Web services” – much vaunted by software giant Microsoft in particular – promise to create common technology standards so that Internet services can be provided more seamlessly to the consumer.

So what is the future of IT in the coming decades? Major trends include:

- A huge increase in computer power ((the furtherance of Moore’s Law – the doubling of transistors on a microchip every 18 months) as chips become more sophisticated, enabling devices to become “smarter”).
- A much more imaginative use of embedded chips into objects and devices such as clothes (heralding the concept of “wearable computers”).
- The emergence of imaginative Internet services that allow for the collaboration and interaction of hundreds of millions of people around the world, supported by the pooling of computer power.
- The electronic joining up of public and private institutions, networks, devices and people around the world to provide seamless services to citizens and consumers. Many more services and activities will be electronically (or e-) enabled.

Robotics

In the coming future, advances in robotics are dependent on four, interacting things:

- *Advances in computer power.* Without processing power, a robot may be able to sense something coming toward it (a huge truck say!) but may not be able to process that into something meaningful, in order to get out of the way! Robotics experts often compare the MIPS (the ability to process Millions of Instructions Per Second) of animal, human and robotic brains. The average PC today with the latest processing power can do 1000, which is about the same as a fly. Humans by contrast can do 100 million. For some, the day when robotics can incorporate this kind of processing power, given constant improvements in computing, is about 20 years away.
- *Mechanical engineering,* so that they have highly engineered, highly precise arms and tools that can be closely controlled and programmed.



- **Sensor technology.** Sensors essentially acknowledge and measure characteristics of the environment (light, sound, smell, physical objects, etc), converting that information into an electric signal, which is processed and becomes the basis for a movement by the robot.

Telecommunications. Robots can already be controlled via the Internet and over wireless data networks from anywhere in the world.

What are we likely to see in the future?

- New generation robots aiding people with work tasks.
- Medical robots to perform surgery and many other tasks, such as day-care.
- Home-based robots. These will have sensors to detect, say, the presence of fire and inform the occupier, or detect an intruder for security. They will be able to relay pictures and information to people's mobile devices.
- Personal-assistant robots which can help people organise tasks.

Augmented reality

Augmented reality is technology that helps people navigate physical environments, typically with the use of "smart glasses". As an article on augmented reality in Popular Science magazine in 2003 puts it:

"Walk down the street, look at the world. This is reality. Now repeat, but wearing an odd-looking, bulky pair of glasses that place into your line of vision selective, relevant bits of data about the world; the data hovers in sight like virtual Post-it Notes, annotating your view. This is augmented reality. Glasses on, you glance to the right, at a vaguely familiar restaurant, and click a small button in your hand. Up pops text reminding you that Tom's Restaurant was the model for the diner on "Seinfeld"; not only that, but -- according to the glasses, at least -- the Morningside salad is worth ordering."

Developmental projects are already underway for this technology, such as the MARS project (Mobile Augmented Reality System) at Columbia University.

Holographic innovations

The technology already exists for holograms of people to be projected over physical distances around the world, so that one person can appear to be physically present in another location.

The company Teleportec is already marketing this technology to executives who do not want to travel long distances to endless business conferences for example. Such technology will become more sophisticated in the future. Ordinary people will be able to talk, in real-time, to hologram images of their friends and family in their comfort of their own homes.



Nanotechnology

Any creative human activity, such as chipping flint to make an axe head, or the making of a rubber tyre, involves the manipulation of atoms in physical materials. However, this is not something that we think about doing in a conscious, controlled way.

Nanotechnology involves the rearrangement of atoms at the molecular level so that tiny mechanisms and machines can be built. We already understand a lot about the behaviour of atoms and molecular structures in physical objects such as air, water, metal, glass and rubber. However, as yet, we have not developed a way to directly manipulate them, mainly because, as leading nanotechnology pioneer Eric Drexler points out, human hands are about 10 million times too large!

The immediate task of nanotechnology in the coming decades is to create molecular assemblers to replace human hands – these are tiny robot arms powered by computers. The consequence is that we will be able to control matter in discrete pieces of atoms and molecules.

What are the applications? According to Ralph Merkle, a pioneer in the area, writing in the MIT Technology Review:

“What would it mean if we could inexpensively make things with every atom in the right place? For starters, we could continue the revolution in computer hardware right down to molecular gates and wires -- something that today's lithographic methods (used to make computer chips) could never hope to do. We could inexpensively make very strong and very light materials: shatterproof diamond in precisely the shapes we want, by the ton, and over fifty times lighter than steel of the same strength. We could make a Cadillac that weighed fifty kilograms, or a full-sized sofa you could pick up with one hand. We could make surgical instruments of such precision and deftness that they could operate on the cells and even molecules from which we are made -- something well beyond today's medical technology. The list goes on -- almost any manufactured product could be improved, often by orders of magnitude.”

A key task in the coming period is overcoming fears about nanotechnology.

Bill Joy, Chief Scientist of Sun Microsystems, has already said that industry should “relinquish” R&D into nanotechnology because of the potential risks. One fear is that the technology could be used for weapons manufacture. Another is that nanotech atom-arranging machines could be self-replicating in an extremely rapid way, meaning that the world could become physically crowded out by vastly expanding machines. However, a quick riposte to this is that these machines will not be “intelligent” in any sense. Humans will remain in control of them.

Genetics

The mapping of the human genome in the first few years of the 21st century has provided a platform for genetic technology. But the task remains to be done of identifying how genes provoke certain diseases and forms of behaviour.

For example, we know that genes must play a role in a disease such as Alzheimer's. But according to a leading researcher in this area, Dr Rudolph Tanzi, genetic information for 90% of Alzheimer's Disease sufferers is still missing.

Similarly, according to Clive Cookson, science editor of the Financial Times, "a reasonable guess is that several dozen genes will turn out to play a key role in determining the human lifespan, with thousands more having a less direct influence."

Greater genetic knowledge will enable people to make lifestyle choices. If you are susceptible to lung cancer, you might not want to smoke for example. Society will also have to cope with new knowledge that certain genes will make people more intelligent, physically strong or what society considers beautiful.

The future of travel

Society is still waiting for the arrival of a quicker successor to the jet aeroplane as a commercially viable proposition. Yet, experts remain optimistic. A lot will depend on the innovation of radical propulsion techniques.

Mike Benzakein for example is the general manager of advanced engineering at GE Aircraft Engines, and is tasked with assessing how the jet engine can be replaced with something better.

In a recent interview with Popular Science magazine, he suggested that:

"There's a market out there that says we can take people from Point A to Point B in half the time that we're taking [them] today...High-speed flight, whether it's at Mach 2 or Mach 4 or 5, will occur."

Suborbital planes that enter space to travel at higher speeds will become a reality in the future. There are sound reasons for the take off of such a market – in particular the rise of Asian economies and growth in travel between Asia, North America and Europe.

The in-flight environment of the aeroplane will be transformed through Internet-related technologies. Lufthansa was the first airline in early 2003 to offer broadband internet service to its customers for free, and many other airlines are expected to follow. Customers use their laptops to connect to the plane's wi-fi system. Planes in the future will have a whole range of new in-board services.



Globalisation

According to the United Nations, the value added by the world's foreign subsidiaries was 11% of world GDP in 2002, compared to 6% in 1982. In the next two decades, this is likely to double or even triple. This is a direct measure of globalisation – the way that international markets in goods and capital, institutions, people and cultures are becoming intertwined and interdependent.

Globalisation will not only be the preserve of multinational giants: smaller firms will increasingly get in on the act. A recent survey for a British Chambers of Commerce (BCC productivity survey) in 2003 found that one in eight self-employed people and executives of firms with 50 workers or more would consider moving their operations abroad – a higher percentage than those considering moving within the United Kingdom.

More developing countries will be drawn into the global economy. A forecast by The World Bank (see *Global Economic Prospects and Developing Countries*) estimated that by 2020, for the first time, the “big five” emerging economies – China, India, Indonesia, Brazil and Russia – will be producing more goods, services and trade than the European Union. British organisations will increasingly want to be in those markets to tap the rising disposable income of billions more consumers. And, as a result, the opportunities for British workers to be drawn into these new global networks will be immense.

Money

The advent of electronic money (e-money) is likely to become a reality in the coming decade. E-money, or digital money, is information stored on chip-embedded smart cards or in “electronic wallets”, rather than the physical stuff of coins and notes that we are used to dealing with. It is likely that it will be stored on mobile devices in the future, which will handle several different credit and debit accounts.

A parallel trend is the transformation of the retail environment. No longer will we see conventional check-out tills. We will be able to pay for our chip-embedded smart goods on supermarket shelves with e-money held in smart devices.

A current barrier to the arrival of e-money is the increased transaction costs accruing to retailers. Retailers are charged by card manufacturers for accepting credit or debit card payments. These charges will not necessarily go away with e-money, but might increase.

In switching to new systems, retailers will also incur initial costs, and they may be reluctant to change. Additionally, consumers will need convincing that e-money will make life easier for them.

E-money, however, is already starting to take off in embryo forms. Mobile pay-as-you-go credit, charged onto phones, can be used as a form of currency to buy other services from mobile network operators. Elsewhere, electronic travellers cheques are a form of currency that are accepted by retailers.



In the worlds of retail and wholesale finance, many transactions are already digital anyway – no physical money is changing hands between major investment banks when accounts are credited and debited.

There are strong arguments in favour of digital money. Physical money already carries hidden costs – the costs of carrying it around to banks for retailers and guarding it, for instance – think of everything from safes, security cameras and security guards.

Also, cash-point machines also carry a cost for banks. And, e-money seems far more appropriate for the increasingly e-enabled world we live in. In the near future, it is likely that the barriers to e-money will be overcome, albeit with a little difficulty.

Work

Two themes stand out as influencing the world of work in the future: mobility; and the cluster of changing social values embedded in notions of stress, work-life balance and the downshifting phenomenon.

Mobility is becoming a new dominant paradigm with which to understand work. The network operator Orange talks about the concept of “wirefree working”, and elsewhere, many herald the appearance of a new mobile workforce. If conventional wisdom is to be believed, “organisation man” is giving way to “wireless man”.

The concept of the mobile workforce covers a range of different trends, however, such as:

The way that employees’ relationship to the office is changing – in particular, the rise of “hot-desking” and “telework”. This is primarily driven by companies that want to use their office space more effectively and take advantage of new technology.

Back in the early 1990s, companies looked hard at how they were using office space. By encouraging employees to abandon fixed desks and only use office space when they needed to – hot-desking – companies could use office resources more efficiently and slash fixed overheads. By suggesting that employees work from home for two or three days a week – telework – companies could pursue growth but without investing so heavily in new property.

These initiatives became common among industries where the workforce was already mobile, such as the financial and business services, and elsewhere in IT and telecoms. Today, around 60% of IBM’s UK employees hot-desk, and in America, 50% of AT&T’s managers telework. Companies can save a lot of money: it has been estimated in the UK that a permanent desk space can cost a company £6000.



Telework is not just about cutting costs, though. It works because employees often demand it. Employees with families increasingly demand the option of working from home for part of the week, in order to balance parental responsibilities. Hence, more recently, telework has been promoted in terms of improving employees' work-life balance.

The ability to work while travelling is another dimension of the mobile workforce. More work can take place outside of the office, and during travel, because of the Internet, and wireless access to information. Private and public resources can be accessed anywhere, and better coordination can take place between office headquarters and remote workers.

Many firms have taken the basic first step of giving employees wireless modems so they can email, and access corporate resources, on the move. In the UK, road services firm RAC has estimated it has saved 53,000 man-hours a year through this measure.

Wi-fi hotspots – areas where mobile workers can access private and public information through a wireless connection – further facilitate “remote working”. In the US, wi-fi has sprouted up in hotels, cafes, universities, airports, shopping centres, railway stations, convention centres and ships. Major corporations such as Intel continue to make considerable investments in it, and it is spreading within Europe and Asia.

Workers may be more mobile, but they increasingly want to face less stress and enjoy better work-life balances.

A recent book (*Work Stress*) by two academics at Bristol University, David Wainwright and Michael Calnan, points out that stress has become a “modern epidemic”. By that, they mean that the idea of being “stressed out” has become generalised across British society, almost independently of the issue of whether there is a genuine basis for such feelings.

One point about today's generalised feeling of being “stressed out” is that it radically alters how people look at work and the world around them. Relatively suddenly, work in pressurized Britain can seem undesirable, and countries that appear to offer a more relaxed lifestyle can become far more attractive than they really are. For instance, one thing that is commonly forgotten with today's talk of stress is that people choose challenging jobs precisely because they want to enjoy intellectual stimulation and avoid boredom. Many countries that appear relaxing could easily become boring for them within even a short period of time.

New social notions of stress are being acted on. A clear illustration is the “downshifting” phenomenon, where relatively well-paid people would rather be paid less, and work less hours, even at the expense of lower pay.

Datamonitor, the market analysts, recently estimated that the downshifting phenomenon in Britain is very real, with 2.6m people doing it in 2002, up from 1.7m in 1997. They believe that there is now a “quiet revolt against the culture of getting and spending”. They believe that by 2007, Britain will have 3.7m downshifters on its hands.



In the future, it is highly likely that notions of stress will influence how people look at various destinations for emigration. Put simply, people will want to emigrate to countries that they perceive as less stressful. At the same time, countries which can market themselves as places of reduced stress will be the beneficiaries of more emigrants.

The domestic economy: greater stability

Britain's economy is widely considered to be in a healthy state in the first few years of the new millennium.

In 2003, a European Commission analysis argued that Britain's economy is one of the best in Europe. With an unemployment rate of 5.1%, it is outshining Germany (8.9%) and France (9.2%). Its rate of new job growth (0.5%) was the third best in Europe. It has the third lowest level of government debt in Europe.

The commission identified four weaknesses in Britain's economy: low productivity; large number of people claiming sickness and disability benefits; poor quality of public services; and regional unemployment black-spots. But these are not seen as insurmountable problems.

A long-range forecast by economic analysts Cambridge Econometrics in 2003 first of all agreed with this analysis, pointing out that Britain would witness rapid economic growth (of 2%) in 2003, contrasting very favourably with the G7 countries.

Looking ahead further to the year 2015, the overwhelming message is one of stability. During that period, GDP growth and unemployment levels are forecast not to deviate greatly (around 2-3% and 1-1.2 million respectively).

This is perhaps not surprising given new government policy objectives. As Chancellor of the Exchequer, Gordon Brown is well known for his enthusiasm of "prudence" and stability.

In a recent book summing up this philosophy (see *Reforming Britain's Economic and Financial Policy: towards greater economic stability*, H M Treasury, 2002), Gordon Brown writes in the foreword:

"A sustained track record of stability is the best foundation upon which the government can deliver its wider goals of high levels of growth and employment, and so deliver rising living standards and better public services."

This puts a focus on such things as "avoiding boom and bust", a favourite saying of Brown's, and regulating the corporate sector more, avoiding financial crises and keeping inflation under control.



Such values are likely to be upheld in the coming years, and the prospect of Britain of either seeing rapid, dynamic growth or rapid economic decline is unlikely. In this context, future emigration is less likely to be influenced by macroeconomics in the way that it has traditionally been.

The institutionalisation of social values

All of the changes mentioned so far will be mediated by social values in transition.

For instance:

Sustainable development. Society will become increasingly sensitive to the idea that human activity is having a destructive impact (real or imagined) on various forms of capital, such as natural capital and social capital, to use the jargon of sustainability.

We may see quicker, faster travel. But will also be paying more “green taxes” to governments. We will see the rise of a notion called “sustainable migration” – a worry about levels of migration and the impact on the world.

Safety and security. British people will have more opportunities to migrate, by virtue of globalisation, but they will be more sensitive to issues of safety and security in a world characterised by risk consciousness. Global societies will be sensitive to potential threats such as global warming and environmental disaster, terrorism, the meltdown of financial systems, the collapse of global IT systems and new global diseases and epidemics.

Multiculturalism and diversity. When British people settle, they will live in countries which have explicit multicultural social policies. These will revolve around the virtues of respecting differences in culture and ethnicity.

Increased value placed on emotional welfare. Societies of the future will move to paradigms characterised by emotional rather than reason-based responses. Rationality will certainly be important for the running of industrial operations and technological advancement. But management today, for instance, is already influenced by the imperatives of “emotional intelligence”. Societies too are increasingly characterised by outpourings of mass emotion – witness the response to the death of Princess Diana. More substantially, sociologists now talk about “The Therapy Culture”, the title of a book released in late 2003 by the sociologist Frank Furedi. This is a society which stipulates new rules of how people should feel and where people are encouraged to share their feelings in new situations, such as the workplace. In the future, people’s emotional welfare will be the subject of their constant monitoring and will influence how they make all kinds of decision.



Allied to this will be an unprecedented focus on the self – issues of happiness, health and spiritual welfare will come even more to the fore, the last expressed in the rise of “new age” religions in Britain.

Governments will base policies around emotional welfare, rather than economic growth. The British economist Andrew Oswald recently predicted in a paper that, by 2020, governments will adopt GHLE (Gross Happiness Level) as a measure of human progress, replacing the traditional economic indicator of GDP (Gross Domestic Product).

4. Future scenarios

In 2012:

Particular groups will contemplate emigration because of the pools of overseas friends and potential partners they meet via the next generation Internet. “Global friendships” will form the basis of new migratory patterns among particular sections of the population, such as single young people looking to start their lives again based around personal relationships.

The reduction of stress will become a major primary driver of emigration among certain sections of the population, such as busy professionals in global industries.

Destinations will seem attractive not because they show off high rates of economic growth, but because they have high GHLEs – Gross Happiness Levels. These destinations will also play to the increased importance given to emotional welfare. Governments will make promises that people feel better when entering their borders.

Among particular groups – the young, free, single and well-off – emigration will take place increasingly on the basis of lifestyle change. People will want to change lifestyles on a regular basis, perhaps every six months, in the same way that people change wardrobes today.

The personal impact that migrants make on the environment will be calculated and charged to them, under new “sustainable development” policies. Such new taxes will be made automatically out of their pool of e-money on their mobile device.

The idea of moving house or country because of a new job will make less sense. The emergence of the next generation Internet, and associated communications technology, will reduce dependence on physical offices and place for information-related work and allow many more professional groups in society to work abroad from a location of their choosing.



In 2020:

Many workers, in fields as diverse as medicine and engineering, will be able to do their work thousands of miles away from work locations. This will be made possible because of a combination of the next generation Internet and advances in robotics. Sophisticated intelligent robots will be controllable through both Internet and wireless networks. An engineer working in the energy sector will be able to, say, fix an oil pipeline in Siberia from the comfort of their home if they desire.

The process of migration will have become technologically-enabled in completely new ways. The logistics of moving house and creating new foreign bank accounts will be done electronically, using e-money. With the aid of electronic passports, passing through customs will be far quicker. Luggage with RFID tags will be delivered to final destinations, not just the airport. The suborbital aeroplane on which people travel will be able to fly abroad in half the time. Migrants will be able to watch a personalised, introductory programme about their new destination on the plane by wearing “smart glasses.” When people get to their destinations, they will be able to understand their new physical environment with the help of “augmented reality” systems. They will have personalised robots greet them at the airport. These robots will be made from super strong materials using nanotechnology techniques, and will be able to withstand vandalism. Emigrants will have new language translation technologies to convert their speech into foreign languages.

British people will emigrate on the basis of genetic decisions. Those vulnerable to diseases prevalent in the western world will want to change lifestyles and live in countries with reduced risks.

Technologies will help overcome a major reason why people have second thoughts about migration – leaving friends and family behind. Innovative combinations of communications technology, holographic images and virtual reality will make it seem that friends are physically present.

Older people will retire abroad to smart houses, where they will be assisted by personal care robots. They can expect their health records to be passed seamlessly to medical authorities abroad. Once in their homes, pensioners will be able to speak to missed friends and family through hologram images.



Profile 1: Jenny, an insurance broker from Nottingham

Jenny is a recent graduate in business studies from London University who has just spent a year's work as a trainee insurance broker in a multinational insurance company in Nottingham. She specialises in insuring the risk that companies may be sued for upsetting the emotional feelings of their employees.

Jenny has been talking to wireless-network enabled holographic images of fifteen friends in Brooklyn, New York. She feels unhappy in her current job and has just broken up with her long-term partner. She is contemplating moving to New York, not least because it scores highly in the World Happiness League of global cities, but also because she wants to be around new and exciting friends.

Profile 2: Steve, a professional derivatives trader in the City

Steve works for Options International in Fleet Street, a derivatives trading operation. He has just learned that he has a genetic disposition to mental illness, and is already feeling stressed in his current job. To reduce stress, Steve is contemplating moving to a beach location in Southern India, which has the world's largest community of financial day traders and is welcoming to British expatriates. Steve can continue to trade from his next generation mobile device using speech recognition technologies. Steve will be paid less by working this way, but feels it will be worth it because of the net affect on his health and happiness.

Profile 3: Jane, a retiree from Bristol

Jane is 78 and is contemplating retirement abroad in Mexico, which offers the best global tax breaks to retirement migrants who spend their disposable income there.

She doesn't have to worry about speaking Spanish because she owns a personal Lingua Trekka translation converter, which she first used on holiday in the Philippines in 2017.

She is also attracted to Mexico because Smouse Systems, the world's largest builder of smart homes, has just built a smart home community in Cancun, Southern Mexico. She can transfer the sale of her second house in Nice to buy a new one in Mexico, through Mega Estates which has created a market in transferable housing credits. She can also easily arrange her medical records to be sent direct to her new personal medical robot, Susy, which will help her play her piano and help her overcome her arthritis. Once in her new house, she will be able to talk to her ageing father, Daniel, through the projection of his holographic image.



Profile 4: Michael, a self-employed carpenter from Edinburgh

Michael is a self-employed carpenter who loves his job making highly fashionable but expensive wooden furniture for well-heeled Edinburgh citizens. However, he has calculated that, using Robodex Systems 2000, and the next generation Internet, he can make his tables and chairs faster and easier by operating a remote robot via the Internet in his second home in Moscow. By doing so, he can also charge a mark-up to his clients. He has also fallen in love with a hologram of Vladimir, a potential partner-to-be living in Moscow. For six months of the year, Michael decides to live in Moscow.

Profile 5: Delia, a corporate interior design consultant with a multinational oil company, from London

Delia works for British Energy and Oil, one of Britain's largest oil companies. She is divorced with three children. Her company wants her to work in China as an intra-company transferee, one of the many hundreds of thousands now going there, and advise on interior design for new offices in Shanghai. Under corporate social responsibility and work-life balance policies established in 2013, the company will already pay for Delia's children to be educated in a special English school in Shanghai. The children will be taken to work by Ken, her new personal robot with a 'Chinese appearance'. Delia is primarily interested in emigrating because she can live a new lifestyle as a Buddhist monk outside of work, which she also hopes will give her new interior design inspirations. Also, she has 300 "work-life balance" credits owed to her by BE & O for working overtime in the London office.

Profile 6: Sanjay, a student living in Bradford

Sanjay has just finished his SA (Super Advanced) Levels and has achieved seven As. He has accepted a place at Sydney University to study for a degree in Species Protection.

As part of a policy put in place in 2016, the Australian government has already placed him after he graduates with a Japanese company in Australia that specialises in the protection of endangered marine animals.

However, this will only happen on the condition that he achieves a first in his degree and scores highly on the independent government "knowledge worker test".

When he migrates, Sanjay has agreed for BAET – the British Association for Environmental Testing – to assess the environmental impact of his migration and tax him accordingly. To reduce his cost, Sanjay decides to go from Bradford Airport. And, on the plane, he will play an online game with his friend Martin in Vancouver for only two hours, instead of three, to reduce his use of the Universal Bandwidth.