If universities are to fully enrich their local communities then they need to focus on where the needs of their communities are greatest, so they must focus on feeding the talent requirements of their local scale-ups.

It is now seven years since the government asked me to write the ScaleUp Report on UK economic growth, and five years since I co-founded the ScaleUp Institute aimed at increasing the proportion of businesses that scale-up in the UK.

The evidence at the time of the report was stark. The UK economy was lagging behind other leading economies in terms of the extent to which our companies scale. It was a major issue for the UK, I warned, because scale-up companies are crucial to both national and local competitive advantage.

Today it is pleasing to report that the total number of scale-ups has increased by 35% compared to 2013, and year-on-year more organisations are focusing on scale-ups to help realise their potential as engines of growth.

Challenges

But there is still much to do. For instance, our latest annual review identified major concerns over access to markets for scale-ups, with government and large corporates needing to do much more to work with them. Data is also key to unlocking scale-up potential. Releasing and harnessing it will be vital to monitor the efficacy of scale-up interventions and policies across both the private and public sector.

Another challenge is around regional disparities with too many UK regions stubbornly lagging in scale-up growth. However I can report that the picture in Greater Manchester is promising. Our latest Scale up review identified 1,530 scale-ups across the city region, employing nearly 140,000 people and collectively turning over £22.5bn. What is particularly striking is that just 0.6% of businesses - all of which are scale-ups - are responsible for a staggering 70% of jobs.

The role of universities

In my original ScaleUp Report I identified the vital role of education in driving the wider scale-up agenda, and our findings are of immense interest to universities in terms of preparing students for the world of work.

Indeed, if universities are to fully enrich their local communities then they need to focus on where the needs of their communities are greatest, so they must focus on feeding the talent requirements of their local scale-ups.

However the track record of UK universities responding to this challenge remains mixed. While some have fully embraced the agenda, others have simply not grasped the importance of scale-ups. Obviously a key issue is being able to identify the scale-ups in the first place and then ensuring that they are properly targeted. This is easily done. Universities can find them on the ScaleUp Institute website, while students can use services such as the Workfinder platform to identify them.

Manchster experience

I’m delighted to say however that The University of Manchester, and Alliance MBS, have certainly embraced the challenge. Indeed, in 2018 Alliance MBS launched a Scale Up Forum offering its internationally-recognised talent, skills and knowledge to boost the growth of scale-ups in a peer-to-peer initiative that encourages business leaders to share experiences and lessons.

The Forum continues to meet to discuss a pre-agreed topic chosen by members, and past topics have included how successful companies in the North West are tackling barriers to growth, talent recruitment and retention, building leadership capability, and developing strategies to reach new customers.

The Forum also includes larger-scale events for businesses, especially those with high potential of becoming scale-ups, and the next event is on April 21 on the theme of ‘Effective management to drive business growth’. So if you are not already involved with the Forum I would strongly urge you to do so and go along to such an event.

Guest welcome: Sherry Coutu, Founding Chair, ScaleUp Institute

If you are interested in attending the next Forum event on April 21st please contact russell.miller@manchester.ac.uk
Levelling up towards London we need a long-term strategic view of the whole of the UK economy, says Marianne Sensier.

There remain wide regional economic disparities in the UK between productivity per head in London and other English regions, and it is a gap that continues to grow.

In this context, infrastructure spending is seen as a significant contributory factor to this regional imbalance, yet the UK has been committing less on infrastructure than other leading western economies for some decades.

At the same time the methodology for appraising transport schemes – the HM Treasury’s Green Book – continues to favour London as it includes the wider benefits of agglomeration impacts, dependent development and more productive jobs. Rather, words, investment in the future is determined by past success.

This could change, however, if decisions about significant investments explicitly incorporate a strategic view about economic development for the whole of the UK. In this case, the economic theory underpinning Cost Benefit Analysis implies should be the case. Rather than only investing in already highly productive places, this would enable public infrastructure investment to reflect the government’s strategic view about potential productivity gains.

Research

This is the central message of a paper recently co-authored with Professor Diane Coyle, formerly of The University of Manchester and now at The University of Cambridge, in which we compare transport infrastructure projects that have used the Green Book.

In this context, infrastructure development projects that have used the Green Book – continues to favour London as it includes the wider benefits of agglomeration impacts, dependent development and more productive jobs. Rather, words, investment in the future is determined by past success.

This could change, however, if decisions about significant investments explicitly incorporate a strategic view about economic development for the whole of the UK. In this case, the economic theory underpinning Cost Benefit Analysis implies should be the case. Rather than only investing in already highly productive places, this would enable public infrastructure investment to reflect the government’s strategic view about potential productivity gains.

Levelling up

To correct the bias we need a long-term strategic view for the UK economy. Greater productivity in all places will improve national productivity with better social outcomes and lower inequalities between, and within, regions.

Unsurprisingly, in this context, our paper has caught the eye of Whitehall given the go-ahead by the government, his pledge to raise the level of economic performance in all parts of the country outside of London. If the government really wants to help people in those northern ‘red wall’ seats it took from Labour, then levelling up should mean the redistribution of infrastructure projects.

So what projects should it choose? Given that one factor that has increased regional disparities is the loss of rail connectivity following cuts to the UK rail network in the 1960s, one might imagine that HS2 – the planned high speed rail line connecting London, Birmingham and the north - perfectly fits the bill.

But would HS2, which was recently given the go-ahead by the government, really be transformational? I would argue that investment in rail services and infrastructure across the North would have a much more transformational impact. In this context there are a whole host of smaller rail projects already planned for the North (such as station and line improvements) which, collectively, would vastly improve the woeful experience that many passengers face on a daily basis.

With transport infrastructure investment still skewed towards London we need a long-term strategic view of the UK economy, says Marianne Sensier.
In recent years the UK’s creative industries sector has been growing rapidly both in terms of employment and economic output. But as a recent paper I wrote for the Creative Industries Policy and Evidence Centre revealed, big regional differences remain.

Using official government estimates, the paper examined the distribution and growth of the creative industries in the UK at a regional level. What we found was that creative industries are very unevenly distributed across the country, both in absolute terms and relative to economic activities as a whole. Interestingly, this unevenness is considerably more pronounced in terms of the value of economic outputs than it is for employment, with London and the South East dominating the former much more than the latter. This implies substantial inter-regional differences in labour productivity. Indeed, the implied labour productivity of some of the creative industry sub-sectors in the northern and western regions of the UK is strikingly low.

Policy challenge

The analysis highlights the scale of the policy challenge in reducing regional inequalities. The UK government and devolved authorities rightly recognise the economic and socio-cultural significance of the creative industries, and that they can be expected to continue growing into the future at a faster rate than the economy as a whole.

The government is also committed to narrowing the gap between London and the rest of the UK, both in relation to the creative industries and the economy as a whole, and the policy challenge can be summarised as how to maintain growth in London and the South East while ensuring the rest of the country catches up. This implies that the creative industries need to grow faster in the rest of the UK than in London and the South East and, to be meaningful. ‘Catching up’ here means not only narrowing the gap in terms of employment, but also in terms of productivity.

Catching up

This is a major challenge. As a share of total employment, the creative industries have been growing fastest in London, such that between 2011 and 2018 they increased their share of total employment by, on average, 0.26 of a percentage point each year.

In the rest of the UK, excluding London and the South East, the creative industries share of employment increased by just under 0.1 of a percentage point each year. If we extrapolate these trends, then in 20 years the sector would account for just over 18% of all employment in London, 14% in London and the South East, but just 6.4% of all employment in the rest of the UK.

So for the rest of the country to catch up to this 14% figure, the creative industries in the regions would have to grow their share of employment by half a percentage point every year for the next 20 years. That amounts to roughly five times their present rate of growth, and twice the rate of growth achieved by London in the 2011-2018 period.

Narrowing the gap

Narrowing the gap is not impossible, but it is important that policymakers recognise that growing the creative industries outside of London and the South East is a major, long-term challenge, and that relatively small, short-term initiatives will prove inadequate.

I question whether the current emphasis on ‘clusters’ in general, and ‘creative clusters’ in particular, is up to the task, particularly as the largest, strongest, and fastest growing clusters are predominantly in London, while clusters in the regions outside London (and the South East) tend to be much smaller. To be clear, I am not opposed to the current clusters-based policy. My concern is whether this will be sufficient to start narrowing the gap.

Regional disparities remain embedded in the creative industries sector too, says Bruce Tether. It is important that policymakers recognise that growing the creative industries outside of London and the South East is a major, long-term challenge...
Pay divide

Fifty years since the Equal Pay Act was introduced Jenny Rodriguez and Isabel Tavora argue for further reform.

Over the last half century equal pay legislation has undoubtedly enabled women in the UK to challenge pay discrimination and advance gender equality. Recent examples include the success of thousands of women who fought Glasgow City Council for equal pay, or the BBC journalist Samira Ahmed who won an employment tribunal earlier this year.

But the very fact that these cases still had to be taken to court highlight how the legislation has, in many ways, failed to deliver on its key objectives. Gender pay disparities continue to exist, and although the gender pay gap has narrowed, the legislation on its own has not been enough to overcome many of the underlying causes of pay inequality.

While the introduction of Gender Pay Gap reporting two years ago was a step in the right direction, companies are still under no compulsion to take action on their figures.

Challenges

Research by Professor Jill Rubery and other colleagues at the Work and Equalities Institute has highlighted that whilst pay structures may be at the centre of pay inequalities, causes are varied and multi-layered, and emanate from societal, organisational and policy arrangements.

They range from the over-representation of women in low-paid occupations (and the over-representation of men in high paid occupations), through to the undervaluing of women’s work, and the lack of transparency about pay. In particular this secrecy around pay, coupled with the onus on individuals to identify appropriate comparators, means that the challenge to overcome pay inequality seems unsurmountable because it makes individuals responsible for resolving their own structural disadvantage.

Unequal sharing of family care responsibilities also prevents employment participation on equal terms. This is visible in gendered working-time patterns that are typical in the UK, such as mothers working part-time and fathers working long full-time hours. In the absence of affordable childcare, it makes more financial sense for the parent with the lowest income, normally the mother, to reduce hours than to pay for childcare. This is further reinforced by low-paid maternity and paternity leave, and flawed shared parental leave legislation which still discourages most fathers from taking on care roles.

Changing work

Another area where we see a failure in equal pay legislation relates to changes to the nature of work and how the structure of employment has evolved rapidly, for example, through the rise of flexible working or zero-hours contracts.

In today’s fragmented labour market, the boundaries between jobs, contracting and service provision have become blurred so that flexible workers are not always neatly covered by equality law and employment protections. In addition, pay inequality is no longer just a matter of gender equality as evidenced by calls for the law to recognise multiple discrimination.

This is complicated by the fact that Equal Pay legislation relies on individuals themselves to find out if they are being unequally paid (a job made more difficult by the lack of transparency in pay), and on them having the energy and resources to make a claim.

Solutions

So what are the solutions? Whilst we’re not suggesting the legislation should be scrapped, instead we propose reforming our legal and policy framework so that it really supports equality and fair pay for all. The kind of measures that we have in mind include:

• Promoting better pay transparency by enabling and normalising pay disclosure in pay;
• Designing more open and transparent appointment processes for senior jobs;
• Making full-time childcare available and affordable for all;
• Discouraging the long hours work culture and not rewarding face time in promotions;

Such reform could help us move from the current ‘reactive’ scenario – where companies tend to only act when something happens (such as an equal pay claim) towards a more proactive approach to equal pay, in which employers actively correct existing inequalities rather than passively waiting until they are caught. Such reform could also help overcome the practical difficulties associated with taking employers to court over equal pay claims.

Brexit could also be a perfect opportunity for the UK to think carefully about what it wants its labour and employment practices to look like so that we do justice to the principles that drove the establishment of the Equal Pay Act fifty years ago.

Jenny K Rodriguez is a Senior Lecturer in Employment Studies.
Isabel Tavora is a Senior Lecturer in Human Resource Management.

Footnotes:

[1] Fifty years since the Equal Pay Act was introduced.

[2] Research by Professor Jill Rubery and other colleagues at the Work and Equalities Institute has highlighted that whilst pay Structures may be at the centre of pay inequalities, causes are varied and multi-layered, and emanate from societal, organisational and policy arrangements.

[3] They range from the over-representation of women in low-paid occupations (and the over-representation of men in high paid occupations), through to the undervaluing of women’s work, and the lack of transparency about pay. In particular this secrecy around pay, coupled with the onus on individuals to identify appropriate comparators, means that the challenge to overcome pay inequality seems unsurmountable because it makes individuals responsible for resolving their own structural disadvantage.

[4] Unequal sharing of family care responsibilities also prevents employment participation on equal terms. This is visible in gendered working-time patterns that are typical in the UK, such as mothers working part-time and fathers working long full-time hours. In the absence of affordable childcare, it makes more financial sense for the parent with the lowest income, normally the mother, to reduce hours than to pay for childcare. This is further reinforced by low-paid maternity and paternity leave, and flawed shared parental leave legislation which still discourages most fathers from taking on care roles.

[5] Changing work

Another area where we see a failure in equal pay legislation relates to changes to the nature of work and how the structure of employment has evolved rapidly, for example, through the rise of flexible working or zero-hours contracts.

In today’s fragmented labour market, the boundaries between jobs, contracting and service provision have become blurred so that flexible workers are not always neatly covered by equality law and employment protections. In addition, pay inequality is no longer just a matter of gender equality as evidenced by calls for the law to recognise multiple discrimination.

This is complicated by the fact that Equal Pay legislation relies on individuals themselves to find out if they are being unequally paid (a job made more difficult by the lack of transparency in pay), and on them having the energy and resources to make a claim.

Solutions

So what are the solutions? Whilst we’re not suggesting the legislation should be scrapped, instead we propose reforming our legal and policy framework so that it really supports equality and fair pay for all. The kind of measures that we have in mind include:

• Promoting better pay transparency by enabling and normalising pay disclosure in pay;
• Designing more open and transparent appointment processes for senior jobs;
• Making full-time childcare available and affordable for all;
• Discouraging the long hours work culture and not rewarding face time in promotions;
Studies have consistently shown that the pre-school years are among the most important in anyone’s life. The experiences that a child receives in these early years go on to play a vital role in their future development. As such nursery education has a significant bearing on any child’s development, and the measurement of a pre-school child’s performance against a range of metrics is now regarded with increasing importance by governments across the world.

Against this backdrop one UK software provider to nurseries is now playing an increasing role. North West-based Connect Childcare is a leading provider of management software solutions for up to 3,000 nurseries across the country, supplying many of the country’s leading nursery groups. These solutions cover areas such as the overall management of nurseries, the observation of children, and communication with parents. CEO Chris Reid says the business has a “phenomenal” amount of real-time data, but at the moment does not have the internal capacity to analyse it. “For instance we collate around a million observations a month on children and then share that data back to parents, enabling them to adopt strategies at home that link in with what the child is learning at nursery and which can further improve the child’s development. But we have no effective feedback loop from all this data that we collect, we need to make better sense of it all.”

Knowledge transfer

Faced with this challenge the company turned to data analytics specialists at Alliance MBS to help, and it has just embarked on a Knowledge Transfer Partnership (KTP) with the School. KTP Associate Dr Hichem Barki, a machine learning and data scientist, supported by Senior Lecturer in Decision Sciences Dr Yu-wang Chen, will now work with the company on a 30-month programme.

Adds Reid: “We will take all the various data channels we have and flatten them, leveraging data science expertise so that we can think more deeply about our data and how to make better sense of it.”

Objectives

Dr Chen says the key objective of the KTP is to establish a data analytics platform that can create, refine and automate data gathering, analysis and reporting in ways that can generate additional revenue or capability.

“The platform will enable the company and its clients to respond promptly to changes in policy and market conditions, and contribute to government policy discussions by utilising trusted business intelligence to inform the decision-making process. The KTP will also apply machine learning and optimisation technologies for data management to a legacy software system.”

Benefits

Dr Chen says there are strong benefits for Alliance MBS researchers too. As he adds: “This project has the potential to contribute to policy decision-making and engage a wide range of fellow researchers and practitioners from across The University of Manchester to establish a solid foundation for a truly influential impact case study.”

Meanwhile Reid believes the KTP will give him precisely the framework he needs as he seeks to exploit new markets. “Right now we are looking to expand internationally and the KTP will definitely help us build a data-driven analysis model to benchmark globally. We see extremely strong opportunities for our business stemming from this KTP and, as Dr Chen says, there is a significant wider societal benefit too.”

“Studies have consistently shown that the pre-school years are among the most important in anyone’s life. The experiences that a child receives in these early years go on to play a vital role in their future development.”

“The platform will enable the company and its clients to respond promptly to changes in policy and market conditions, and contribute to government policy discussions by utilising trusted business intelligence to inform the decision-making process. The KTP will also apply machine learning and optimisation technologies for data management to a legacy software system.”

“Studies have consistently shown that the pre-school years are among the most important in anyone’s life. The experiences that a child receives in these early years go on to play a vital role in their future development.”

“The platform will enable the company and its clients to respond promptly to changes in policy and market conditions, and contribute to government policy discussions by utilising trusted business intelligence to inform the decision-making process. The KTP will also apply machine learning and optimisation technologies for data management to a legacy software system.”
Applied thinking

Academics are not able to compete on scale, distribution, or product reliability, but can compete on speed, creativity, and prototyping.

César Hidalgo discusses the benefits of academics working closely with business.

I’ve spent the past 16 years at US universities, and the last decade leading MIT’s Collective Learning Group at Cambridge, Massachusetts. The campus is a highly ‘entrepreneurial’ environment that encourages academics to push out their ideas by either spinning out their own start-ups, or by working in collaborations with private companies.

Spinning out an idea from a university is a very difficult process, and it is also unlikely to happen using an academic paper as the only vehicle. Knowledge is in the authors, not the papers, so knowledge transfer requires frequent contact and collaboration among people in and out of campus. Indeed, I could recount many stories here intertwining academic labs and private sector companies, especially in sectors such as biotech, pharma, robotics, and software. Many of the most highly regarded professors, like George Church or Robert (Bob) Langer, are known for having begotten dozens of companies.

But this can only happen in an environment in which you reward researchers for having impact in diverse ways. Admittedly that impact might sometimes only be tied to publications, but sometimes there is a demand for more applied knowledge. Personally, I think some models of research are too narrowed down on the narrative aspect of research, even though I love writing. But there is much impact that also can come from refining it.

Applied thinking

Alliance MBS has a long tradition of applied thinking and being a leader in thinking about innovation and on science and technology policy. This is just one of the reasons why I am delighted to be taking up an honorary position at the School as part of a wider move to Europe that involves me also taking a Chair in the South of France at the Artificial and Natural Intelligence Institute (ANITI) at the University of Toulouse.

ANITI is a new research organisation created as part of France’s strategic plan to compete in the field of Artificial Intelligence (AI) and is focused on the fundamental and applied aspects of technological, human, and social intelligence.

My move to Europe will allow me to collaborate more closely with Manchester and researchers in other European hubs working on AI, economic complexity, knowledge diffusion, and data science. I also plan to continue splitting my time between academia and business as I get a lot of ideas for research from the interactions and lessons I learn from my business activities, and vice versa.

Data

In terms of my business activities, seven years ago I founded Datawheel in the US, a company that has professionalised my research on the creation of data distribution and visualisation systems.

The rationale behind the business is that most companies generate vast amounts of data but that data is frozen, as if hidden under an iceberg, in storage and operational platforms. Datawheel’s solutions are all about helping business leaders thaw that iceberg, making the data easier to manage, explore, and visualise.

A lot of the value of data comes from having good interfaces and being able to interact with them. On its own, data is raw and needs context. But if you take the cliché of data as the 21st century ‘oil’, then the value comes from refining it.

End-to-end solutions

In particular what we have been working on are new end-to-end solutions to integrate, organise, and visually distribute many data sets. At the back-end we have created methods to create highly expressive Application Programming Interfaces (APIs) which automatically produce every possible ‘endpoint’. We then use this hyper-specific ability to link to data to create expressive visual resources, like DataUSA (datausa.io) or the Observatory of Economic Complexity (oec.world).

These public data projects have allowed us to research different ways to organise data and helped us discover a modular stack of software that we can now use to quickly build platforms of this kind.

Power of research

Trying to do this research with private data would have been hard, but by researching the development of public data distribution platforms we’ve created a capacity that works well for the creation of private sector platforms.

Some might argue that it should be only up to businesses to develop such interfaces, but I believe academics can explore ideas that are often further ahead of the curve. The goal is to create projects with the hope that the world can catch up with the imagination, and it is at that point that research gets applied.

Academics are not able to compete on scale, distribution, or product reliability, but can compete on speed, creativity, and prototyping. That requires a creative branch of academia. Academia is simply limited to commenting and critiquing, those creative outbursts may not happen.
Getting serious

Professor Chris Humphrey was recently a member of the Advisory Board assisting Sir Donald Brydon’s independent review of the quality and effectiveness of audit which reported in December 2019. In linking the Brydon report to debates about ESG, he highlighted the fundamental importance of Sir Donald’s reframed definition of audit, which emphasises that the purpose of audit is to help to build and maintain ‘deserved’ confidence in a company, its directors and the information on which it reports publicly, including its financial statements.

“...This definition positions audit in a much broader frame, with ‘deserved confidence’ clearly not just resting on the audit of financial statements alone, and being dependent not just on auditors but also on the directors in the way they run the company and the spread of other (non-financial) information that they are required to or choose to make public."

Professor Humphrey added that the Brydon report also stresses the importance of corporate resilience and of the sustainability of the relationship between the company and the environmental and societal framework in which it operates.

Environmental, Social and Governance (ESG) standards are having an increasing impact on financial markets. During a recent lecture at Alliance MBS by Sacha Sadan, Director of Corporate Governance at Legal and General Investment Management, academics also shared their work on the subject.

Professor Marie Dutordoir, together with Professor João Guarnipusi and co-authors, has been studying market reactions to the UK Modern Slavery Act (MSA) which was introduced in 2015. She said the MSA now makes it more difficult for companies to pretend they have a supply chain free of modern slavery - because even though the Act doesn’t explicitly tell them what to report, companies that are doing nothing to eradicate modern slavery in their supply chain will find it hard to say anything about it. “So the market should be able to see that. A well-designed regulation can push companies to clean up their supply chains.”

Another area of her studies has been around Corporate Social Responsibility (CSR) and how it affects firms’ financing initiatives. One study co-authored with Professor Norman Strong, looked at the impact of off-the-shelf ESG ratings on stock price reactions to equity offerings. “We found that if a company has a high ESG rating then the market reacts more positively to its equity offerings. That seems to be good news, but worryingly we also find that the company with the high ESG rating then seems to use the proceeds in a less value-creating way such as by storing it as cash, and they also have worse long term performance.”

Professor Kostas Stathopoulos has been conducting corporate governance research for the last 20 years and says he has clearly observed companies taking ESG issues more seriously recently.

“Firms are nowadays focusing more on the needs of their stakeholders. Even though shareholder value maximisation appears to still be the main objective, corporate managers have come to the realisation that in order to achieve this they need to take into account the needs of important stakeholders such as employees.”

His recent research shows that firms that rely more on skilled employees or are strongly committed to employee wellbeing tend to hold more precautionary cash. This is because firms wish to reassure their employees that they have the resources in place for future investment on employee welfare, as well as to retain key employees when things turn badly.

In another co-authored working paper Professor Stathopoulos found that in firms with labour unions CSR spending on areas such as environment and society actually increased the risk of labour strikes, whereas spending on employees mitigates such a strike risk.
The value of patents

To most people the concept of patents and their intrinsic value remains firmly rooted in the private sector. They are a means by which individual companies can exploit scientific discoveries to then make a profit. Yet, as Barbara Ribeiro and Philip Shapira argue in a new research study, patents can also create substantial societal benefits as they encourage information sharing, further R&D investment, and the useful application of new knowledge. They say the value of patents has generated longstanding academic interest in innovation studies. But the focus to date has largely been on valuating factors that influence the market value of patents and the gains from exclusivity rights granted to inventions, which reflect the private value of a patent. However, they argue that the patent system is a socially shaped enterprise where private and public concerns intersect, and less attention has been paid to other interpretations of patent value.

Paper

Dr Ribeiro has published a new paper written with Professor Shapira, looking at private and public value propositions of patents using a case study of patents in synthetic biology. After considering the legal, business, social and political dimensions of patenting, they undertook a qualitative and systematic examination of patent content in synthetic biology. Their research was supported by, and contributes to, the Manchester Synthetic Biology Research Centre for Fine and Specialty Chemicals (SYNBIOCHEM) at The University of Manchester.

As Professor Shapira explains: “Our analysis probes the private and public value propositions that are framed in these patents in terms of the potential private and public benefits of research and innovation. Based on this framework we then shed light on questions around what this paper does is introduce an entirely new way of viewing patents, a new lens for critically looking at them. At the end of the day very few people pay attention to the full text of patents, but that’s exactly what we’ve done here, no-one has ever done an exercise like this before.”

Public value

Dr Ribeiro adds that there is now a major movement towards better understanding the public value of innovation. “Some companies and countries are encouraging investors to think beyond private value and return on investment.” She says the global debate is well illustrated by a product such as menthol which is found in mint plants and is widely used in fragrances. “This is a huge global market and the natural production of menthol, mostly from India and China, is being replaced by chemical methods. However, the latter involves the use of fossil fuels, yet menthol can also be produced from genetically modified bacteria which could limit the use of fossil fuels by avoiding the transportation of products all over the world. This kind of societal benefit is being mobilised through synthetic biology patents, like the ones we analysed in our research.”

Feedback

Dr Barbara Ribeiro is a Presidential Fellow at the Manchester Institute of Innovation Research, and Speciality Chemicals (SYNBIOCHEM) Synthetic Biology Research Centre for Fine

Public value

The paper is part of a wider theme of research on Responsible Innovation at the Manchester Institute of Innovation Research looking at how innovation, and patents, can help tackle global strategic development goals, and how they can generate public as well as economic value. Dr Ribeiro said: “This paper has broad messages for all emerging technology and innovation and is the first ever analysis of public values embedded in patent documents. The patent is ultimately a public protection which enables private investors to get a public benefit, and it has been widely forgotten that the original idea of patents was related to this social utility and the benefit to wider society. “This then leads to whether the public value of patents today can help us tackle wider societal grand challenges. It is an entirely new way of viewing patents, a new lens for critically looking at them. At the end of the day very few people pay attention to the full text of patents, but that’s exactly what we’ve done here, no-one has ever done an exercise like this before.”

Public value

Since appearing in Research Policy last year, the paper – Private and public values of innovation: A patent analysis of synthetic biology – has received positive feedback from research and policy communities.adds Professor Shapira: “Ultimately we want to stimulate researchers to look at this domain. It comes down to thinking about value in completely different terms, and what this paper does is introduce an analytical framework into the study of patenting by probing the content of patent documents in relation to their potential economic and social impacts.

Our analysis also has broader use in the context of mapping trends in discourses about, and justifications for, innovation. Such an analysis could inform, for example, new strategies in the private and public sector in terms of mapping trends in innovation discourse, target industries and applications.”

Patents embed both private and public values. Barbara Ribeiro and Philip Shapira have been investigating
Anne McBride reflects on whether 20 years of change in healthcare management has really brought new ways of working.

The beginning of my career at Alliance MBS happened to coincide with the early years of the Blair government and New Labour, a time which saw a determined emphasis on the need to introduce new ways of working across the NHS. Yet if you look back today at those once shiny New Labour plans from 20 years ago and compare them with the government’s latest interim NHS Plan from the summer of 2019, you will find a striking resemblance in the narrative.

Which begs the question, are we simply reinventing the wheel when it comes to healthcare management?

Change

What is clear is that there has been a lot of change across the health service in terms of roles, responsibilities and management over the past 20 years. Waves of policymakers will often say ‘let’s get people working differently’, but any change needs to be managed carefully and understood in the context of how healthcare practitioners work closely together, whilst also working to different limits on their practice.

For example, a recent study of skill mix changes in general practice – conducted here with colleagues and funded by CLAHRC (Collaboration for Leadership in Applied Health Research and Care) Greater Manchester – revealed ambiguity about the purpose and place of newly introduced roles in general practice, and created tensions around role definition and professional boundaries.

A key challenge was preparing trainees and practitioners to work in a clinical setting characterised by a higher level of uncertainty, pace, and responsibility. The new practitioners needed to adjust to a more autonomous style of working and this required a greater level of active risk management.

Without carefully managing the long-term planning of the funding, training and integration of all associated workers, you risk undermining the spread and sustainability of that change. And this is one explanation for why policymakers might assume that nothing is changing.

As this example shows, a number of new practitioners are now sharing some of the responsibilities in healthcare, sometimes through delegation. But the supervision of non-regulated workers (i.e. workers who are not allowed to work independently and to whom tasks are delegated) remains a particular challenge. For instance, who carries out this supervision and what burden does it place on the supervisor? Or, does the supervision even take place at all?

Even the transfer (without delegation) of tasks to regulated workers (i.e. health workers whose training provides them with a legal framework for their autonomous working) by senior clinicians is not without its issues. For instance, our research has shown that sometimes changing who does the task can lead to increased costs.

Skills escalator

One way of ensuring that these issues are not overlooked is developing an organisational-wide workforce development strategy, as opposed to looking at the introduction of isolated roles. Indeed, over the years attempts have been made to encourage staff in NHS (England) to actively step up the career ladder and seek new work opportunities, such as through New Labour’s ‘skills escalator’ drive in public services.

As well as focusing minds on developing new, intermediate roles that span the gap between regulated and non-regulated jobs, the escalator also supported a more inclusive approach to encouraging and developing latent talent outside and within organisations.

However, again the evidence here is that employers have shied away from taking a more holistic, longer-term view of workforce development. For instance, research by myself and, among others, my colleague Stephen Mustichin into seven different case study organisations found that such an approach towards employee betterment and organisational development was only truly embedded in one organisation. The pressure to meet short-term targets was a component of this reticence.

Sustainability

The latter point shows the considerable challenges around translating health research into practice. But despite these challenges it is good to be able to point to a number of examples at Alliance MBS where this bridge has been crossed. For instance working with my colleague Professor Helge Hoel and industry specialists, we made recommendations for a practical approach to diversity and inclusion in the workplace. We used examples, such as the Skills Escalator approach, to indicate how decisions about recruitment and promotion were made in the best organisations, and incorporated these findings into a new workplace standard.

Another example has been the work of CLAHRC Greater Manchester, an excellent collaboration between providers and commissioners from the NHS, industry and the third sector, which has looked at specific programmes such as end-of-life care, wound care, and helping stroke survivors, their carers and families.

This collaboration has also enabled myself and colleagues to work with others across The University of Manchester, and is now being continued through the National Institute for Health Research Applied Research Collaboration for Greater Manchester.

Anne McBride

Anne McBride is a Professor of Employment, Relations and a Director of the Institute for Health Policy and Organisation.
With practice we can all develop our reserves of resilience. But this is not always an easy or comfortable process, says Joseph Lampel.

The age of resilience

With practice we can all develop our reserves of resilience. But this is not always an easy or comfortable process, says Joseph Lampel.

We live in an age in which our awareness of the future is more intense than ever before. Whatever we are doing in our day-to-day lives, we all understand that change, both in our individual lives and in the wider world, is inescapable.

Today we turn on the TV, visit a website, log on to social media, or read the latest tweet, to find ourselves inundated with news of change that is happening right now or may happen soon. And when we contemplate the broad range of possible futures we are pressed to decide which ones to pursue and which to discard.

Inevitably, when making decisions we are caught between hope and anxiety, and it is resilience that projects we are starting will succeed, and anxiety that unforeseen difficulties will be in the way. So while change offers opportunities, it is also stressful and challenging, even when the intended outcome is positive.

Resilience

To live successfully in such a dynamic, rapidly changing environment, it is essential that we know and grow our resilience. Resilience is encapsulated by the idea of bouncing back while sustaining a sense of purpose.

A resilient decision-maker engages with change and is determined to forge ahead, while maintaining the flexibility of mind to adapt as necessary.

This is the subject of a new book in which I and my co-authors, Aneesh Banerjee and Ajay Bhalla, discuss the different aspects of resilience in today’s society. One of the reasons we wrote the book was to move beyond conventional notions of resilience. For instance it is not uncommon to hear the word resilience described in purely reactive terms, usually equated to coping with adversity. But if you study people who are making major decisions in their professional lives you find that they exercise resilience both reactively and actively, depending on the challenges they face.

Challenges

People who make major decisions in their professional lives need to be resilient almost by definition, and resilience allows these individuals to confront challenges that can stretch them to the limit.

Sometimes these challenges are ‘reactive’, consisting of unforeseen problems such as having to recall products, new regulations, sharp falls in revenues, financial and political crises, or natural disasters.

But, crucially, very often challenges are just as likely to be generated by the very pursuit of strategic goals, such as new ventures or ambitious efforts to reshape business operations – so-called ‘active’ challenges. Decision-makers therefore need a different type of resilience when dealing with reactive as opposed to active challenges.

Some decision-makers have the resilience to excel when confronting reactive challenges, others when they have to deal with active challenges. Some excel at both and are subsequently much sought after. But some have difficulties dealing with both types of challenges too.

Decision-making

It is fair to say though that most decision-makers have the resilience to deal with either reactive or active challenges, which is why we find them gravitating towards different areas within an organisation – for example, operations versus project management.

On the other hand, decision-makers who do not have the resilience to confront reactive or active challenges are often sidelined into positions where challenges rarely occur – if they can keep their job at all.

It may seem self-evident that resilience is essential to decision-making. But the surprising thing is that organisations usually notice resilience only after a challenge has been dealt with, successfully or otherwise.

Our view is that resilience is not valued as much as it should be because organisations emphasise rationality and foresight as the path to success.

I have spent a lot of time working with senior executives who come to my classroom because they want to understand how to make better decisions. Many believe that the path to making better decisions lies purely in rational analysis of situations, leading to clear, well-defined recommendations. Sadly, however, there is a gap between this neat theoretical picture of decision-making and the messy reality.

Messy reality

The 2008 financial crisis is a notable example of how messy reality can challenge long-standing business practices. Following the crisis my colleagues and I began to study how organisations and their leaders responded to the recession that followed. We looked into the differences between organisations that dealt well with the recession, and rebounded quickly afterwards, and those that continued to struggle, even after market conditions improved. We found that the primary distinction was that organisations that recovered quickly and developed a route toward a sustained upward curve were more resilient than those that didn’t.

The good news is that, with practice, we can all develop our reserves of resilience. But this is not always an easy or comfortable process. Only by regularly engaging our resilience can we see what a difference it makes to our daily lives.
Chatroom perils

A paper by Sung Hwan Chai, Brian Nicholson, Robert Scapens and Chunlei Yang has looked at how new forms of surveillance facilitated by digital platforms can emerge without strategic planning or explicit management decision-making.

The paper was built around extensive interviews with employees of a luxury hotel in Vietnam over a three-year period, and looked at how employees’ participation in group chatrooms allowed them to experience greater freedom and control over their work.

However they did so without realising that they were also strengthening management’s surveillance over them. Furthermore, the surveillance extended outside working hours and blurred boundaries between private lives and work lives.

The findings illustrate how surveillance practices in modern organisational settings are no longer confined within organisational boundaries.

Smartphones

The hotel opened in 2012 and initially managers prohibited employees from using their personal mobile phones. But in 2015 circumstances arose which led to the widespread use of employees’ personal smartphones for communication at work and to the adoption of mobile platforms in the hotel.

Sung Hwan Chai, who was the main author of the paper and collected the data through a series of interviews, explains: “At that time management had only allocated all the available walkie-talkie and radio channels to the golf cart drivers who transported guests around the hotel site. Consequently, other employees experienced severe difficulties in communicating with supervisors, and each other, when undertaking their day-to-day tasks. To deal with these difficulties employees began to use their personal smartphones and messenger apps.

“Although the hotel’s rules had strictly prohibited employees from using their personal mobile phones, management now allowed, and even encouraged, them to do so, as it significantly improved communication around the hotel site. As a result, smartphones and messenger apps, enabled by mobile platforms, crossed organisational boundaries despite previously being prohibited.”

Service

The paper highlights that over time these changes enabled both managers and employees, rather than just the managers, to take responsibility for the organisation’s service performance, by looking for potential performance issues and raising them with other employees and managers.

“In other words, the distinction between the role of managers and employees become blurred as the latter gained more freedom and control over their work,” says Sung Hwan Chai. “However this increased freedom put employees under constant surveillance, which sometimes extended outside the workplace.”

He says what is particularly interesting is that, when interviewed, none of the employees expressed particular concerns or frustrations about increased surveillance more generally in the hotel, and didn’t see anything wrong in what they were doing.

Further research

The paper raises fascinating questions about the potential moral implications of digital platforms that enable surveillance practices.

Brian Nicholson, Professor of Information Systems, added: “We hope to now inspire further research on the impact of digital platforms and other technologies on organisational surveillance practices. For instance future research could explore how technologies, such as cloud computing and artificial intelligence, could cross organisational boundaries in various industries and have unintended and potentially harmful consequences.”
User consent

Hands up if you’ve ever bothered to read the interminable small print of privacy policies when downloading your latest mobile app? If not, you are certainly not alone.

Concerns around the growing uptake of mobile apps and, specifically, their implications to end users’ personal information privacy, was the inspiration for Sophia Kununka’s PhD in Business and Management.

As she explains: “The privacy policies provided by mobile app service providers have been critiqued as difficult to understand by users and not providing any degree of control over personal privacy. This is not surprising because privacy policies are written by service providers and come from their perspective. The legal and technical details presented in privacy policies are motivated by requirements for compliance rather than the end user’s ability to understand.”

Research

Despite these findings, research into the design of alternative privacy policies has had limited end-user involvement. As she adds: “My research aimed to contribute to the development of more effective privacy policy representations by incorporating the end user’s perspective into the design of policies.”

Her research found that users expressed a clear preference for alternatives that were more structured and visual in nature. “The main contribution of my research was in establishing an understanding of the privacy policy information domain, establishing end user understanding of privacy policies, and the design of a mobile application privacy policy representation that incorporates the end user perspective. This then allows the creation of privacy policies which facilitate informed user consent and control over personal information.”

Kununka now hopes to publish the work across the wider research community and translate the findings into a more market-ready product that mobile applications can engage with. “I think that my findings will positively impact on privacy policy representation to mobile app users, enabling greater user awareness and control over personal privacy,” she adds.

Background

Kununka is from Uganda and has long had a strong interest in technological research. Prior to her postgraduate studies she worked as an IT officer with the Capital Markets Authority in Uganda, and then wishing to further her professional development she applied for The University of Manchester’s Equity and Merit Scholarship which enabled her to pursue an MSc in Management of Projects. After completing her masters she returned to Uganda to spearhead technological developments in the securities industry, but soon realised she wanted to further improve her research skills so applied for an Alliance MBS Doctoral Studentship scholarship to pursue the PhD.

Legal tech

Having now completed her PhD, Kununka plans to further develop her profile in technology-related research and teaching, and ultimately wants to return to Uganda to “give something back” to her home country.

Sophia Kununka used her PhD in Business and Management to probe the privacy policies of mobile app providers.
Markos Zachariadis has written a major report on the future of banking.

Technology and data advances will enable banks to provide customers with a hyper-personalised and largely automated service within the next decade, but evolution of the model will be dependent on banks’ ability to find the right balance between innovation and risk management.

A report written by Professor Markos Zachariadis for global bank HSBC, "Banking of the Future: Finance in the Digital Age," details how customers will start to take much more control of their own personal data through digital ID profiles. At the same time, banks will aim to become “trust brokers” in the management, development, and safeguarding of these digital IDs.

By mastering new data sources and analytical technologies, banks will also be able to build up a deeper understanding of customers’ needs – and how they can help them – as well as unlock new revenue streams.

Opportunities

Professor Zachariadis said: “Financial services has traditionally been slower to digitise than other industries, but we’re now seeing a real period of change and there will be a number of significant opportunities for successful banks over the next decade.

“By leveraging technology to better organise and analyse the data, as well as by using their trusted position to build a closer relationship with consumers, banks could expand their role at the centre of a more platform-based financial services model.”

Managing risks

However the report adds that managing risks which are growing in the new digital economy, like data privacy and cybersecurity, will be essential to the development of this future system and building consumer trust.

For example, further steps needed to be taken to standardise work in Artificial Intelligence, and how information is collected, presented and explained to consumers. And much greater international coordination will be required to truly take advantage of new technologies – which are by and large borderless – to avoid regulatory arbitrage.

Josh Bottomley, HSBC Global Head of Digital, Data & Development, added: “The journey towards banking of the future will accelerate considerably over the next decade and customers can expect a highly personalised service determined by their individual requirements.

But for this to become a reality, banks will need to strike the right balance between what technology and data can enable to meet customers’ expectations, with the need to actively address risks to their wellbeing, as well as protecting the financial system.”

A £2.5m donation has been made by Greensill, a leading British fintech company founded by Alliance MBS alumnus Lex Greensill, towards a new Chair in FinTech as well as other key academic posts and PhD scholarships over the next five years at The University of Manchester.

It will also mark the 50th anniversary of the university’s Centre for Management Studies and the 25th anniversary of the University’s Centre for Information Systems.

Working capital

Lex Greensill commented: “At Greensill we are passionate about how finance and technology can change for the better the way we live and work. To that end, we look forward to developing an even closer relationship with Alliance MBS. We are delighted to be able to give back to an institution that was so important to the foundation of our firm.”

Professor Fiona Devine, Head of Alliance MBS, said: “It is an honour to receive support from Lex Greensill as an MBA alumnus and the donation marks a significant milestone in the development of fintech in the North West.”

Professor Dame Nancy Rothwell, President and Vice Chancellor at The University of Manchester, added: “This generous donation is very forward looking and will enable the University to spearhead the understanding and sharing of fintech expertise across business communities locally, nationally and globally.”

Professor Markos Zachariadis is the Greensill Chair in Financial Technology and Information Systems.
A live consultancy project with the third sector lies at the heart of the full-time MBA.

During the first term of a full-time MBA at Alliance MBS students work on a live consultancy project with a third sector organisation (the Not-for-Profit project or NfP). Working in small multinational teams to build cross-cultural understanding and explore new ways of working, the project also gives students a foundation for two other live consultancy projects during their MBA, one with a commercial business and the other with an international company.

Full-time MBA Consultancy Projects
Director Dr Mike Arundale oversees around 20 partnerships a year between Alliance MBS and various third sector organisations, each project looking at a business decision situation in which the client requires evidence-based advice. Often the particular issue being studied relates to income generation, covering questions such as how a museum can generate more income from a café, or how an organisation can demonstrate in order to increase visitor numbers. The Museum felt it was under-utilising its online channels, and was therefore missing opportunities to engage with the public, and promote events and activities.

Research
A team of five MBA students set about surveying various museum stakeholders and researching local competitor attractions. In particular they reviewed the social media accounts of museums which have the best online performance to find out what practices they were adopting.

What they found was that the Museum had a relatively low performance in terms of the online hits you would expect. As Mayo adds: “Our frequency of posting was high but the impact the posts were making was not being optimised.”

Among key recommendations were for the museum to develop a detailed social media management plan, develop a content creation strategy, and consider launching a mascot in order to attract families.

Mindset
Dr Arundale says instilling in students the research skills they need to assist clients with the business issue is paramount. “Quite often the students will be looking at a general strategic question that the organisation has not previously asked, so they need to be adept at looking for information that no-one has gathered before.” Because of this strong research mentality that students have to adopt, he says the programme is hugely valuable for their wider learning and development.

“If you are interested in finding out about consultancy projects contact phil.galvin@manchester.ac.uk

Dr Mike Arundale
Lecturer in Strategy and MBA Consultancy Project Coordinator.
A major report co-authored by Frank Geels was launched at COP-25, the UN climate change conference in Madrid. The report, Accelerating the Low Carbon Transition: The Case for Stronger, More Targeted and Coordinated International Action, was commissioned by the UK Department for Business, Energy & Industrial Strategy and supported by the Energy Transitions Commission.

The report brings together a historical understanding of how technology transitions happen (such as from horses to cars, or from wells to piped water); lessons from the experience of international cooperation in security, trade and environment; and practical knowledge of the sectors that must be decarbonised. It identifies points of leverage for coordinated international action to accelerate low carbon transitions in ten of the highest emitting sectors, and highlights the urgent need for institutions that can support such cooperation to be strengthened. In comparison with previous reports, what is new is a focus on the processes of change, rather than on the end goal.

**Key findings**

• Stopping emissions requires fundamental innovation, rapid diffusion of new technologies, and the reshaping of markets and socioeconomic systems. This requires actions far beyond simply putting a price on carbon or adopting bold emissions goals. A more targeted, hands-on and strategic approach to policymaking is required to reconfigure the technologies, business models, infrastructure and markets in each of the greenhouse gas-emitting economic sectors.

• It is within economic sectors or systems that new technologies can be created and diffused eventually to reshape the social and economic activities of which they are a part. This process depends on the actions of policymakers, firms, consumers and civil society actors who, in today’s economy, are connected globally.

The report says much more effort is needed to convene the key players in each sector in order for the goals of the UN’s Paris Agreement to be met. Alongside the policy actions for decarbonisation, a strategic commitment to institution-building is therefore the single most important activity that can be undertaken by any government wishing to lead the global response to climate change.

**Influence**

Professor Geels also recently contributed to a landmark report on the state of Europe’s environment which featured a whole chapter drawing on his work around how societies can transition towards more sustainable futures. He has worked extensively with the European Environment Agency which recently published its latest five-year State of the Environment Report. It features a whole chapter on sustainability transitions in mobility, energy, and food systems which uses Geels’s theoretical framework (the so-called Multi-Level Perspective) as an organising framework.

**Award-winning paper**

A paper by Professor Anne Stafford entitled Lifting the Lid: The Private Financing of Motorway PPPs in Ireland has been jointly awarded the Miriam Hederman O’Brien 2019 prize. She co-authored the paper with Professor Eoin Reeves and Dr Donal Palcic from the University of Limerick.

The Miriam Hederman O’Brien prize is awarded by the Foundation for Fiscal Studies in association with The Irish Times to recognise outstanding work in the area of Irish fiscal policy. The aim of the prize is to promote the study and discussion of matters relating to fiscal, economic and social policy, particularly among new contributors to these fields, and to reward those who demonstrate exceptional research promise. Professor Stafford’s paper addresses the complete absence of detailed information on, and analysis of, the financial aspects of Ireland’s road public–private partnership (PPP) programme to date. You can read her paper on the Economic and Social Review website.

Frank Geels is a Professor of System Innovation and Sustainability

Anne Stafford is a Professor of Accounting
Indian conglomerate Tata is probably best known in the UK for its ownership of Jaguar Land Rover. But closer to home in the North West its chemicals division also owns British Salt which produces around half of the UK’s pure salt from its factory in Middlewich, Cheshire.

Until recently British Salt was primarily a B2B company, but its Indian owner was keen to expand its reach into the UK consumer market and mirror the success of its Tata Salt operation in India, where its packaged iodised salt is the biggest salt brand in the country.

Iodine, which is found naturally in milk, eggs and seafood, is known to have particularly strong health benefits. In particular, it is regarded as essential for the growth of children, cognitive development, thyroid health and hormone production.

Market research

With this in mind British Salt was keen to launch a salt product fortified with iodine, and turned to academics at Alliance MBS to help research the market and wider attitudes towards such a product. As such, it began a Knowledge Transfer Partnership (KTP) with the specific aim of launching a salt product in the retail market before the 30-month KTP was completed.

Today, as the KTP nears completion, the company has already begun selling the product via Amazon, while in future months it is meeting retail buyers with a view to getting the product onto supermarket shelves.

The KTP has been headed by Elle Perschke (pictured above) who after completing a Masters in Marketing at Alliance MBS was brought on board by British Salt and appointed Brand Development Manager at Tata Chemicals Europe.

She says the KTP has really delivered on its key objectives. “It’s been a fantastic partnership and to get the product to market before completion of the KTP has been a great achievement.”

Meanwhile, the KTP has also been shortlisted in the Business Collaboration and Partnerships (University sector) category at the forthcoming Educate North Awards.

Disaster standard

Last year we wrote about how an international disaster response standard initiated by Professor Duncan Shaw was gaining increasing traction across South America.

The standard provides guidelines on how groups can make best use of enthusiastic volunteers who jump to the assistance of affected communities during disasters such as flooding, hurricanes or man-made catastrophes, and provides organisations and services with crucial guidance which could make the difference in the event of a major emergency.

Recent trip

Shaw recently returned from a trip to South America; this time to Argentina where he headed up a delegation to the province of Neuquén which has encountered several disasters in recent years, including volcanic eruptions, forest fires and floods. In each catastrophe hundreds of spontaneous volunteers became involved and determined to participate.

During his trip Professor Shaw held a meeting with Argentina’s Minister of National Security who talked about the work her office is doing on spontaneous volunteers and the national plan they developed using the work of Alliance MBS. Separately he also met with the Governor of Neuquén Province who has now launched a provincial plan for spontaneous volunteers.

Duncan Shaw is a Professor of Operations and Critical Systems.
Contemporary businesses are frequently challenged to invest the profits from their commercial successes into projects that benefit society. Yet the idea that the pursuit of competitiveness should also promote the common good is not a new one. Indeed, its origins can be seen in the Middle Ages. England in the late thirteenth century had a dynamic economy. Legal advances created a lively property market and commodity trade, cutting-edge technologies improved transport and manufacturing, and towns grew dramatically, both in number and size. The period from c.1200 to c.1350 is now recognised as a period of commercial growth that was as significant as the later Industrial Revolution. Using recently discovered documents on medieval Cambridge this book investigates how money was made through property speculation, and how the profits of successful speculation were spent. However, 13th-century expansion was not based on individualistic capitalism. Family bonds and community loyalty were strong and 36 family dynasties were active in the Cambridge property market, and many were successful in establishing, maintaining, or even expanding portfolios.

The movement of money between individuals, organisations and governments is crucial to the world economy. The payments industry has undergone immense transformation with new regulations, technologies and consumer demands prompting significant changes to the tools, products and use cases of payments, as well as presented lucrative opportunities for entrepreneurs and FinTech professionals. As payment technologies become faster and more efficient, companies and investors are increasingly favouring PayTech innovation due to better customer experience, increased revenues and manageable risks.

For the first time this classic textbook has been co-authored by a Manchester professor, namely Hongwei He, Professor of Marketing at Alliance MBS. As he comments: “I was really thrilled and honoured to be invited to co-author this new edition. We’ve thoroughly revised the textbook to reflect the major trends and forces that affect marketing in this digital age of customer value, engagement, and relationships.”

To help students understand how to create value and build customer relationships, the authors present fundamental marketing information within an innovative customer-value framework. They have also added numerous European examples, practices, and cases throughout the text. Adds Professor He: “An interesting and valuable feature of this latest edition is that many marketing scholars and instructors from leading UK and European business schools have contributed a wide range of interesting cases, which provide invaluable additional learning resources to the students.”