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Ethics and social value in the professions

5th annual symposium on developing socially responsible professionals

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Key:

Social value can be abbreviated to "**SV**"

ESG – Environmental, Social and Governance

CSR – Corporate social responsibility

SMEs – small and medium-sized companies

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Welcome and opening address

Social value constantly interacts with political action and professional bodies

Professor Sir Anthony Finkelstein
President, City, University of London

City University is *the* university for business practice and the professions.

City builds leaders for the world of work. City is a learning, changing and evolving organisation, the opposite of an ivory tower. It is open and willing to engage. All of those attributes make it particularly appropriate that City is hosting this important conference that is close to both our mission and hearts.

Social value lies at the very core of what it means to say that someone is a professional person. It is a particular irony when you hear of some organisations engaged in the delivery, directly or indirectly, of professional services, who otherwise fail to exercise social value in the work that they undertake.

We have had many talks about this subject, but now is a particularly sharp moment for this symposium.

The whole understanding about how social value interacts with political action, interacts with the responsibilities of commercial, industrial and professional organisations, is something that lies at the very heart of much public debate. So it is very important that this forum talks about issues such as social value and what the responsibilities are to ESG of large organisations, and professional actors working within them.

Professor Finkelstein regretted that he could not attend and looked forward to the output of the conference.

> *"Accenture is proud to sponsor this important symposium on developing socially responsible professionals, in all professions, for the third year running"*
>
> **Andrew Vautier Senior Managing Director, Accenture Technology.**

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Programme

Theme: Ethics and social value

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SOCIAL VALUE

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Panel debate	**Could the fintech sector deliver social value in the UK?** In favour: **Madush Gupta,** Innovation and Fintech for the Capital Markets at Lloyds Banking Group In opposition: **Alex Hindson,** Partner and Head of Sustainability at Crowe UK LLP Audience Q&A
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Panel debate	**Ethics and professions** Chair: **Professor David Leslie,** Director of Ethics and Responsible Innovation Research, The Alan Turing Institute **Dr Carwyn Hooper,** Reader in Global Health Ethics and Law, and Head of the Graduate School at St George's, University of London **Dr Rhys Morgan,** Strategic Projects Director for Skills and Inclusion at the Royal Academy of Engineering **Professor David Stupples,** Professor at City, University of London **Emma Crichton,** Innovation Director at Engineers Without Borders UK **Professor Corinna Haenschel,** Professor at City, University of London
Summary and close	**Professor Raj Roy,** Executive Dean, School of Science and Technology, and Social Responsibility Lead at City, University of London

Setting the challenge

The role of technologies in creating and supporting social value

Professor Rajkumar Roy Executive Dean, School of Science & Technology 'Social Responsibility' Lead, City, University of London

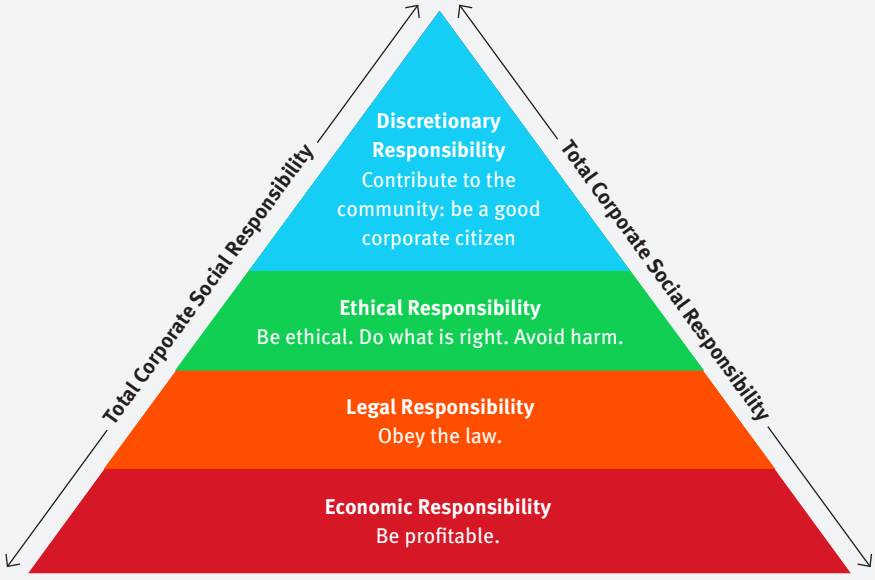
Professor Rajkumar Roy started by setting the challenge for the 5th national symposium on Developing Socially Responsible Professionals. Here, he discussed the role of social value and ethics in professional practice and business.

He also highlighted how multiple technologies can help and support society and the environment, beyond pure economic benefit. Co-creating economic and social values is a challenge for all professions.

Carroll's pyramid of CSR (corporate social responsibility) shows that economic responsibility is necessary for society. Companies must make money to create a system that supports the higher layers. Ethical and social responsibility comes higher up. Today, increasingly people are becoming more responsible for both.

How is the public perception of the professions and business changing, and why? There have been multiple serious and scandalous corporate incidents – the Post Office Horizon software scandal, the Grenfell Tower fire, "Dieselgate" emissions and others. Horizon was not formally investigated for c. 15-years since doubts were made highly public. Individual software engineers could not speak about the faults in the software due to company pressure. The key question is: *what were the other involved people doing?* Society should not look for scapegoats but greater collective responsibility. (see talk by Mike Adamson). Between 1999 and 2015, convictions changed the lives of 700 people. Public perception matters: why did the company not do this 15-years ago?

Behaviour is equally, if not more, important than technical solutions in ethics conversations. Intellectuals should challenge the onerous behaviours of corporations. Creating social and economic value has been thoroughly researched, as well as research into how we create both values in tandem. City, University of London is running a new PhD course, sponsored by SUEZ Waste & Recycling UK, focused on the accurate measurement of social value. Why is this important? In the literature review, this is the prominent factor: over



Reference: Carroll International Journal of Corporate Social Responsibility (2016) 1:3 . DOI 10.1186/S40991-016-0004-6

60% of the papers reviewed by City showed measurement was the biggest challenge in social value initiatives.

The Social Value Act 2012 put this into legislation. Now there is a requirement for minimum 10% contribution for public procurement contracts to deliver social value. But contractors often challenge how this is evaluated. City research can help define this.

Many companies are trying to be more socially responsible, and they need formal tools. Companies like Suez, investors, charities and other organisations are looking to invest in and engage with companies that demonstrate high levels of social value.

Currently there are too many separate metrics for social value; one estimate is there are over 700 metrics and companies have to select a few from this list, a ludicrous number if companies have to progress this work. The challenge is to bring this back to real, practical, universally accepted measures. One needs to understand what is possible and not possible in measuring social value.

Professor Roy has three big challenges for the SRP 2024:

1. **Why do 6/10 journals on this topic say measurement is a problem?**
2. **Is a one-size-fits-all approach correct? Should different approaches apply to different professions**
3. **Can the three key elements – People, Planet and Profit – be traded?**

Professions

Medical ethics considers four key aspects:

Autonomy
respect for the patient's right to self-determination

Beneficence
the duty to 'do good'

Non-Maleficence
the duty to 'not do bad'

Justice
to treat all people equally and equitably

These examine the direct effects of behaviour and practice of these professionals on their patients. There is a need to better understand the disciplinary differences in ethics, the similarities and differences between how professions apply ethics.

An example in engineering is the growing use of composite materials. We need to challenge how this may affect the health and safety of workers using the material. Are these products recyclable? What is the cost to the planet if not? How can we recycle this in a cost-effective manner? This is a technical not a behavioural challenge.

Public perception and pressure

Consider the effect of public perception. Everybody has an opinion and that drives actions by individuals and by the Government.

Research shows 43% of the British public perceives corporate tax avoidance is the biggest issue in society. How do you teach people not to bribe or accept bribes, other than their professional code of conduct? There are clear gender and age group differences in the perspectives of trust. Also we should look at the perception of AI. There is increasing evidence that the public see AI as an ethical threat.

(Last year) the UK Information Commissioner warned that 2024 is when the public will lose trust in AI. There is a growing body of research on ethics in AI. But trust and accountability are not just about AI, privacy and data security is a challenge across all professions.

Professor Roy is working in a CIRP (The International Academy for Production Engineering) Collaborative Working Group on "Ethics in Manufacturing". It is observed that philosophers have a strong view about the ethics of maintenance, engineering maintenance, in different activities, from how our public buildings are maintained to how military equipment is maintained. There is a huge difference between an engineer's mindset and a philosophers' mindset, but there is opportunity to cross-pollinate both.

Society needs to create next generation of professionals who are trained to think about the ethical implications of their decisions and have tools to assess the impact in a timely manner. Curricula in the undergraduate, postgraduate and doctoral levels must include ethics and social value considerations. Sharing knowledge and practices among disciplines to accelerate the change is essential.

Keynote 1: Social value and fintech

Human-centric fintech 5.0 and social values

Professor Rajaran Mutthukrishnan Assistant Dean of E-learning, City, University of London

Fintech is moving very fast. It can benefit and penalise society. The lines between for-profit and non-profit fintech approaches to social challenges are blurring. This will require more creative forms of funding and a new focus on the value of investing in solutions for financially vulnerable people.

The fintech industry is developing fast. As of 2023, the global fintech industry is estimated to be valued at $305.7bn.

Research shows that 60% of consumers want to transact with financial institutions that provide a single platform, such as social media or mobile banking apps. Mobile payments are growing. In 2024, 90% of users will make a mobile payment with their smartphone.

Peer-to-peer digital lending (often called "P2P") was worth $43.16bn in 2018 and is expected to rise to $567.3bn by 2026. Robo-advisors (a digital platform that provides automated, algorithm-driven financial planning and investment) are expected to manage $2 trillion in assets by the end of 2024.

Artificial intelligence (AI) will power 95% of all customer interactions in the next five years, with consumers expected to prefer interaction with bots over humans! Blockchain and regtech are two of the fastest-growing segments of the fintech industry.

Sustainability: Digital wallets can reduce carbon emissions

Conventional checkout methods, such as cash and plastic credit cards, produce an average 3.78g of CO_2 per transaction.

Digital wallets can be an eco-friendly payment alternative to reduce paper and plastic waste and offer many convenient features. Many digital payment systems offer incentives and rewards for choosing eco-friendly transportation options such as public transportation, cycling, or walking to work, which can encourage individuals to use more sustainable modes of transportation.

Recently, carbon-offsetting mobile payment solutions have emerged as a trend. These enable users to offset the carbon emissions that result from their transactions by supporting renewable energy projects or reforestation projects.

Inclusive fintech

The most talked-about fintech start-ups share the same vision: they are challengers to the traditional banks. Financial services such as buy-now-pay-later (BNPL) aims to achieve financial inclusion, for example DirectID that shows the true financial profile of your customers in real time.

In developing countries consumers are qualified for microloans by doing a deep data dive on their mobile phones for their transaction history and unrelated things such as what mobile games they play. An example is *anytimeloan*.

DirectID

Social Responsibility & Impact

The significance of social responsibility in fintech is closely linked to young generations. Future customers will consist of millennials and the succeeding Gen-Zers, who will prioritize social consciousness.

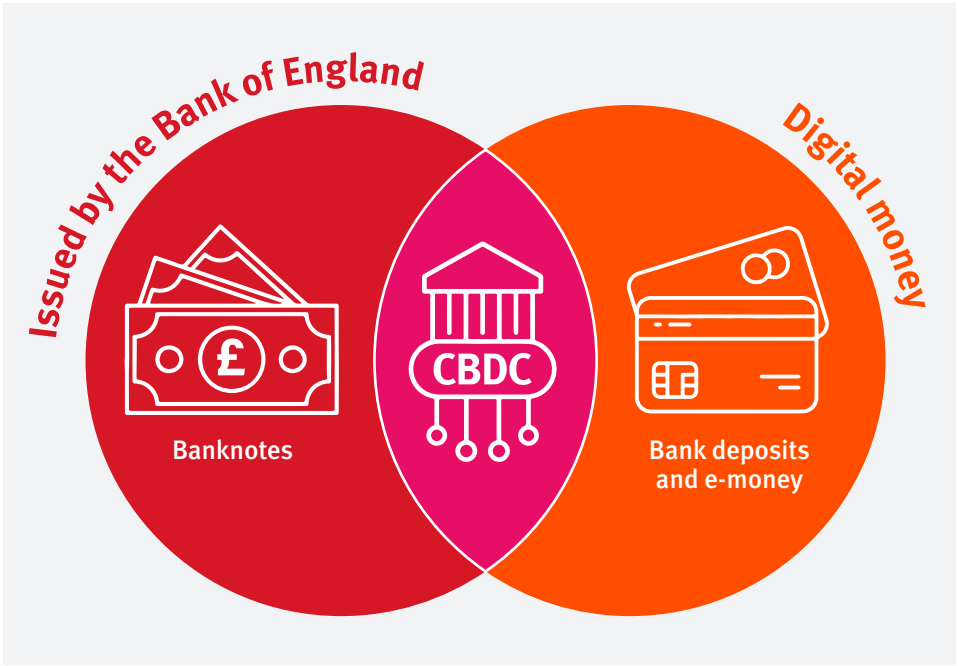
Research shows that 90% of millennials would like to spend their money on businesses that support a social or environmental purpose (source).

These young people have grown up with a sustainable and socially responsible consciousness and want to make consumption choices based on societal values.

Central Bank Digital Currency (CBDC) will promote inclusion

Globally, the average fees for retailer acceptance amount to approximately 3%-5% of the total amount sent. Having a CBDC, like a standard currency, could be an opportunity for the financial sector to develop further innovative payment services beyond traditional services offered by banks.

The global average cost of cross-border payments remains very high at 6.25% of the amount sent. This is more than double the United Nations' Sustainable Development Goal target of 3%. A well-designed CBDC could bring positive effects to society and the broader economy. It could improve payments efficiency and safety, but more importantly could contribute to social inclusion. It will reduce the cost of remittances for migrants, and foster interoperability in the financial sector.



The need for disruptive innovation

The lines between for-profit and non-profit fintech approaches to social challenges are blurring. This will require more creative forms of funding and a new focus on the value of investing in solutions for financially vulnerable people.

Many offer cash back rewards for spending at socially responsible businesses. Some fintech's have started to provide a "Plant Your Change" feature to collate purchases to the nearest whole pound or dollar, using the change to plant trees as part of its sustainability commitment. As part of its £100bn Climate and Sustainable Funding and Finance ambition, NatWest is offering SMEs digital tools to help them go green.

Mastercard, Finaro and GoTo have joined together to plant one million trees by 2025 as part of their joint ESG initiative.

Note: City, University of London and WCIT, The Worshipful Company of Information Technologists, produced a white paper in 2023, launched at the symposium. "Environmental, Social and Governance for Fintech SMEs" is a 34-page paper that provides research and guidance for how to measure and apply ESG in fintech SMEs.

Download copies here:
wcit.org.uk/papers

Social value and fintech panel debate

Can the fintech sector deliver social value in the UK?

Panel Moderator

Chair: **Dr Indranil Nath,** Secretary, Financial Services Technology Panel at Worshipful Company of Information Technologists

For the motion

Madush Gupta (MG), Innovation and Fintech Leader, Lloyds Banking Group, City of London Councillor, Innovate Finance and CFIT Board Member

Against the motion

Alex Hindson (AH), Alex Hindson, Partner, Head of Sustainability, Crowe LLP

Opening Statements

MG: The integration of financial technology, commonly referred to as fintech, has become an indispensable element of everyday life, profoundly transforming the global financial landscape. This transformative power of fintech has universally impacted the lives of individuals, underscoring its role as a pivotal force in modern society. For over two decades, fintech has revolutionized the way financial services are delivered, serving both individual consumers and businesses alike. It encompasses the systems and processes that empower financial institutions, whether they are established banks or emerging challengers, along with payment companies, to provide technologically advanced solutions. These innovations not only offer enhanced customer experiences but also ensure widespread accessibility, affirming fintech's status as a ubiquitous and transformative presence in the financial sector.

AH: Alex's position had rhree main arguments:

1) Fintech doesn't tackle the root cause, which is structural, about affordability, access and the ability to understand what these tools are.

2) We don't understand the broader social and environmental impacts of the technology. Just as an example, every time you ask a query on ChatGPT it uses 500nl of water in data centre cooling.

3) The strongest argument is that in technology we often race ahead and then regret it. Fintech potentially perpetuates biases in some of the issues of accessibility.

Q: Do you believe fintech's are driving sustainable finance and apartment toward responsible investments in general?

MG: Fintech will not be a game-changing mechanism for sustainable finance, just an enabling framework that will make it more cost effective. Asset managers are pulling back on ESG investments. BlackRock, the biggest single investor in the world with $10 trillion assets under management, has withdrawn its ESG investment criteria. This has impacted the weight of money in the sustainable investments market. We should be thoughtful about linking socially driven impact investments and fintech.

AH: Studies suggest that by 2022, 5.8 million people in the UK had access to fintech, and our population will be excluded, or feel excluded, for various reasons.

Rural communities, gender, age and particularly disability, all contribute here. In fact, income is the main issue. I was shocked that my research showed that Northern Ireland and the Northeast are particularly bad compared to the Southeast. 3.7 million out of that 5.8 million are over 75 years old as well. But fundamentally, one in five adults lack the skills to be able to use this technology and one in 20 households still don't have internet access.

Q: Can fintech contribute to building better financial institutions?

MG: The India (tech) stack is a terrific example. India had a population of 1.291 billion in 2013, circa one fifth of the planet, 82% did not have access to a bank account, making most people dependent on a village elder, third parties and cash. Foundational equality starts with controlling one's finances. Today, every Indian citizen has a digital ID (Aadhaar) and can open a bank account. Today, more than 85% of eligible Indians have a bank account, with control of their finances. Social security payments now go directly to the person caring for their children. Inclusion has gone statistically from 15% to 85% in 10 years. It's a miracle. The story is similar in sub-Saharan Africa, due to mobile telephony and mobile payments.

Recently, I have been walking in the fields in the shoes of people who are less physically able; It makes one appreciate how non-inclusive physical banking is. Today, you can do most of the things you need to do on your mobile phone and at a computer wherever you live and whatever your circumstance thanks to fintech.

Software engineers and indeed all engineers today, unlike 10+ years ago, genuinely consider the user journey, test products with diverse members of society, whether you're blind, you're Asian, a woman, a child. It is very inclusive.

AH: This provides a compelling argument for fintech in India and Africa, which is great.

My concern is around the biases that are built into the system.

So for example, can people raise a mortgage on their credit rating, or is their credit card status fairly represented by fintech providers? My own favourite is biometrics in terms of medical information, identification and recruitment. Perhaps we need to reread The Minority Report by Philip K Dick. The book says we can now predict with a 99.8% accuracy who is going to commit a crime, so we should shoot them before they do it.

If all this financial technology is safe, why is the European Union implementing the EU AI (artificial intelligence) Act. Politicians are quite scared that that they will lose control.

Q: Do fintech companies empower users to have more control over their financial data and decisions?

MG: Personal control and transparency had changed immeasurably. In 2000, credit data was controlled by incumbent banks like Lloyds and credit agencies like Experian; Credit Decisioning was not transparent. This only worked for citizens with great credit records.

The world is changing in an emerging Smart Data Economy, heralded by European Open Banking Directive, PSD2. This required financial services firms to share your financial data with third parties if the account holder gave permission.

I am personally committed to delivering Open Finance and the Smart Data Economy in the United Kingdom as City of London Corporation elected Policy Lead for Innovation and technology and board member of HMT funded CFIT, who is leading this work nationally . The development of open banking, APIs, Open Finance and Smart Data will give citizens ever more control over their data.

AH: AH referred to banking regulations: In insurance, there is growing interest in the rules around treating customers fairly. Think why the regulator as put so much effort into that. It's because of all the mis-selling scandals, would you return to endowments, white label insurance products that were incentivized for selling by banks and retailers.

He said: Looking back to my MSc dissertation on environmental regulation, I recall that every single regulation and environmental law at the time was brought in to solve yesterday's failure.

Responding to a delegate question about the risk of open banking being preyed on by digital loan sharks, Alex said the concern is not the technology, which may make the service better, but consumers don't know the standard of the product they are buying, which is much more fundamental.

> *"Risk is not what we do with the technology, but whether we understand what it can't do and the issues with that."*
>
> **Alex Hindson**

Consumer duty

MG: FCA Consumer Duty is one of the most significant consumer regulations to come out in decades, placing an obligation on the c. 65,000 financial firms supervised by the FCA to deliver the best outcomes for customers. It enshrines the Consumer Principle to deliver good outcomes for retail customers.

Incumbent domestic banks were hit hard by the 2007-9 financial crisis and PPI credit card insurance mis-selling. Lloyds' mis-selling fines total more than £24 billion – its market capitalisation is about £27bn. Large incumbent FS are now extremely risk-averse. Start-ups and fintechs, regulated by the Consumer Duty, operate with higher standards because they are more conscious of the consequences of errant behaviour.

AH: In his former role as chief risk officer at a large insurer, Alex said that risk is not how we use technology – *we understand what it can do, but do we really understand what it should not do or what it cannot do?* In environmental management there is a precautionary principle – if you don't understand the outcome, maybe be a little bit cautious. Robert Oppenheimer (atom bomb inventor) remarked something like, "you argue what to do with the technology only after you've achieved the technical success". Alex's concern is that we are very risk-averse until the next shiny product comes along.

Q: Are fintech platforms effectively educating users to improve financial literacy and make better decisions?

MG: Financial technology companies are working in several ways to improve financial literacy. Most of us own a phone, and a digital finance service on our phone. We are testing and improving these individually all day long. GoHenry is a great application, a pre-paid card for children. Operating in a digital world with little cash, your child has a card with e.g. £20 loaded on it. GoHenry has an app on your phone or laptop where your child can do 25 or 30 missions to learn about finance. My child has learned about credit, small investments, being an entrepreneur, and thinking about saving. He earns 50p or £1 from Daddy for each mission he completes and other parents choose to can incentivise or not. It's a learning journey in a digital way they understand.

Keynote 1: Social value

Measuring social value contributions, industrial challenges

Sarah Ottaway Sustainability and Social Value Lead at SUEZ Recycling and Recovery UK (SUEZ)

Sarah is a social value (SV) associate practitioner, the chair of the Environmental Services Association's Social Value Working Group (ESA EV WG) and has decades of experience in and around the circular economy. She shared some of the perspectives and challenges with measuring SV.

SUEZ is one of the largest resource and waste companies in the UK, employing almost 6,000 people at around 300 sites across the country and it handles c. 10.5 million tonnes of resources every year on behalf of the public and private sectors. Its purpose is to put this waste to the best use, whether that's through reuse, recycling or energy recovery.

Social value (SV) has been a metric for SUEZ since the original Social Value Act was passed in 2012, at a time when SUEZ was starting to understand how to be a responsible company. The company introduced its triple bottom line approach to its operations in 2020, providing a clear strategic focus, based on the key pillars of social, environmental and economic impact.

SUEZ has measured its SV since 2018, helping it understand what the business is doing well and what can be done better and having different conversations with employees, customers, and suppliers. This is the where quantifying SV's impact is most effective, as conversations help to unravel layers of understanding. These discussions, more than other actions, has influenced the narrative around social value.

Reuse: When SUEZ started measuring its SV, it quickly understood how valuable reuse was. Reuse can be valued up to £13,500 per tonne, compared to just £52 for some recycling, but getting to those numbers changed the conversation. It unpicked all the social, environmental and economic benefits that come with reuse, and it has changed SUEZ's approach to reuse. For example, reuse is now embedded in its on-site operations, and reuse is being far more proactively pursued than it was previously.

SUEZ now has reuse shops and its first "hub", a centre for repair, upcycling and working with social enterprises and local organisations, helping and supporting different local people. It is taking reuse to a whole new level; in part due to the changing conversations SV is generating.

SUEZ has three key challenges, drawn from the ESA's SV WG industry chair and similar feedback in the wider SV space. This was framed clearly in the "SV2032" project, where SUEZ worked alongside Social Enterprise UK and partners such as PwC, Siemens and others last year.

Understanding what social value means to us (at SUEZ)

We are working towards a world without waste

Key figures

~25,000
Public and private sector customers

11m
tonnes of waste managed per year

~34%
of UK receives direct or indirect services from R&R UK

1.6m
tonnes of waste recycled[3]

~6,000
employees

2 TWh
energy and heat production

300+
locations across the UK
98% with a dedicated sustainability champion

£2.05
social value ratio

1. Data

- What are businesses trying to capture? Social value. Trying to understand the change created and the impact that has had on an individual or a group of people.
- Meaningful and relevant data is not easy to capture, especially from multiple sources. SUEZ tried to overcome this by installing its P&P app about four years ago, designed to capture key data related to SUEZ's ESG impacts nationwide, and provide a standard way to report to its customers locally. Bonus objectives and other actions have benefited the P&P app, but challenges remain, especially the accuracy of the data and quantitative output.

  Qualitative vs Quantitative
  There are pros and cons of collecting both types of data and feedback. Quantitative is allows analysis and is cost-effective. Qualitative tells you more but can take longer and is not empirical.
- There is little consensus in the SV space on good practice between balancing the two types of approach or using qualitative data to inform quantitative measurement. But SV practitioners are searching for "What does good look like?" Meanwhile there is inconsistency, and this is likely to prevent the wider adoption of SV accounting.

2. Different SV frameworks and tools

- The social value tool used by SUEZ is Loop.
- Every framework and tool are different. Trying to support different customers and stakeholder groups is a challenge. It is unregulated, as anyone can set up a tool, but how do users know if they are effective?
- Consistency: e.g. bidding for work with the public sector. Unless a tool is specified how can a customer compare the different SV quantitative bids they have been provided?
- Leads to preferences for tools, which doesn't necessarily give the customer the best outcomes (gamification of the system – work to the highest value provided by the tool)
- **Need:**
  - More trust in tools needed – a quality assurance scheme, providing trust to those wishing to measure their SV to be assured they are using a tool that is effective and accurate.
  - Understanding – easy isn't always the best approach. Lack of understanding and conflicting priorities means that SV often fails to receive the attention it deserves.

3. Proxies for tools

- Linked to frameworks and tools are estimations of impact based on what should be robust data from trusted providers to create an average.
- But real/true averages don't exist when it comes to impact! While averages are the best advocate for effective representation of the impact, the numbers they generate are not trusted because the impact can be so varied within one metric. But they are still important, as practitioners cannot perform a detailed qualitative analysis on everything their business does.
- Some of this is linked to the differences between tools and frameworks, as it is dependent on who created them (previous point) and there is no standard provided by a trusted, not-for-profit body, or standards-setting process that can provide that reassurance
- Carbon is way ahead of the game – wide variety of emissions factors (their proxies) depending on the regulatory / reporting framework or scheme. But there are government level factors e.g. DEFRA that can provide a standard and can be used to provide reassurance that the carbon figures you see have been calculated using this level of trusted resource.
- **Need:**
  - Government level proxies for important areas of impact e.g. employment that is not linked to a commercial body, and/or
  - Standards to enable different proxies to prove they are measuring the right thing, for example SROI (Social return on investment) can be considered a proxy. Here, practice around metrics is developing so quickly that SROI isn't keeping up.

Summary

As the social value measurement space continues to develop fast, to overcome the challenges of capturing and using meaningful data, companies need frameworks and proxies based on a more assured approach, meaning that the measures have consistency and comparability. To do this companies need a more regulated approach, to build trust in seeing the world through a social value lens. This in turn it will help inform decision-making that balances the needs of people, planet and profit.

Keynote 2: Social value

An overview of ESG research

Professor André Spicer Executive Dean, Bayes Business School at City, University of London

The positive attitude to ESG metrics and practices is cooling. The media has driven some of this, perhaps reflecting a wider view that "ESG" is greenwashing and corporate lip service. There is a small correlation between ESG investment and financial performance. ESG initiatives need a push from multiple sides, internal and external, to work.

One of the most widely circulated buzzwords in business is ESG (environmental, social and governance).

Many firms have developed ESG strategies. Investors are tracking ESG performance and allocating funds on this basis. Despite this recent popularity, ESG is currently facing a backlash, indicated by recent headlines in the Financial Times. These include "ESG ratings: Whose interests do they serve?", "The real impact of the ESG backlash", and "ESG is beyond redemption: may it RIP". These negative headlines have been matched with changes in government policy, particularly in the United States. Despite this apparent negativity, interest in ESG-related practices in business continues to be an important part of everyday activity.

While the acronym of ESG might be new, the practices associated with it are not. There is a long history of ESG related practices stretching from the first seeds of modern capitalism all the way to today. Often, how these socially and environmentally responsible practices are labelled has changed. For instance until recently they were labelled as "corporate social responsibility" or CSR. Only in the last few years has ESG become a more popular label.

Small correlation between ESG and performance

Throughout this time there has been constant reflection on the case for ESG. There are strong emotional, ethical and legal cases for ESG. However, one of the most widely debated questions is about the business case for ESG practices. Literally, thousands of empirical studies have explored this question. Recent meta-analysis, which combine the results from all these studies, have revealed a fairly consistent pattern: on average there is a small positive impact of good social and environmental performance on corporate financial performance. However, there are lots of contextual factors that seem to create different outcomes. The bottom line seems to be that it usually pays off a tiny bit to do good. But not always.

The studies of the impact of ESG investing show another pattern – investing in companies with high ESG performance seems to give you above average returns only if people have not already paid attention to the ESG issues (which is not the case today). In most cases, ESG performance is already priced into companies. There is an interesting twist, a skew of the low hanging fruit: ESG ratings could be encouraging people to invest money into easy-to-fix industries, those with an already low carbon footprint, like IT or business services, while discouraging investors from putting money into industries with a high carbon footprint that could potentially make much more difference if they were cleaned up – such a s energy or mining natural resources.

Many people are asking themselves the question that if there is a strong case for ESG, how can they push it forward – either within their company or in other contexts. The answer to this seems to be a mixture of "internal activists" as well as "external activists" working to push ESG issues. Internal activists are most successful in pushing ESG issues when they are "tempered radicals" – people who push a progressive agenda but use the existing structures and accepted processes in a company. External activists can push for change externally – this can help to get customers' attention as well as engage investors. Whipping up anger can be effective in mobilising people, but it can also make it difficult to ultimately work with companies to make a change.

Increasingly, we know that shareholders can influence companies through not just the shares they own but also through creating dialogue with companies and supporting wider ideas of change within an industry.

Ultimately, ESG is not a new term or phenomenon. It is just a set of (good) practices of companies and investors which get relabelled every few years. Being responsible seems to have only a small economic pay off – if any. However, there are strong risks that come with being an irresponsible company. And besides, often the ethical case for change is more compelling than the economic one. If we want to push these socially responsible initiatives forward, then it often pays to create pressure from investors and activists as well as champions of change within a company. It is often by having all three groups working together that real change happens.

Keynote 3: Social value

Socially responsible leadership will not be enough for the challenges of the day

Michael Adamson, Honorary Visiting Professor at City, University of London

Mike has worked in the social impact sector for 30 years and a further 10 years in commercial and public sectors. Most recently he stepped down after nine years as CEO, British Red Cross, but he has worked across many causes, from health to international aid and development, disability to refugees and asylum seekers and more.

None of these challenges could be effectively tackled by one organisation or sector working on its own.

Over that time the challenges have got bigger: populism; culture wars; revolutions in how we see inclusion following the murder of George Floyd; surge in inequalities nationally and globally; geo-political instability; the cost-of-living crisis; the housing crisis; food crisis; immigration crisis; the NHS crisis.

And, of course, the grandaddy, the climate crisis. And all the while gaining ground, the opportunities of a digital and technological transformation accelerated by AI.

On all these issues, there are many actors across all three sectors – private, public and not-for-profit. And in a way that is good because none of these challenges can be effectively tackled by one organisation or sector working on its own.

Maybe a thousand flowers blooming is the right way to go.

But are they blooming? And more to the point do they make a beautiful garden?

Or are there overgrown bits, bare patches, flowers competing for the same sunlight and nutrients?

Whichever sector that is discussed, it is critical to lead in an ethical way, and it is critical to lead in a socially responsible way.

But that will not be enough.

The challenges are too big and too cross-cutting. We need to embrace our interdependence. As leaders, we need to be curious about adjacencies – and the better overall outcomes that might be possible through collaboration – while still meeting our own individual organisational goals and performance metrics.

We need to practice our leadership differently.

Leadership requirements

It seems to me that the requirements of leaders now in every sector are very different to what they were. And many organisations in the private section have mission statements setting out social and governance goals.

Businesses have a track record in taking things to scale – and increasingly they see the business case for engagement on the big, cross cutting issues as part of their ESG agenda. They want to be on the right side of history, optimise talent attraction and retention and get ahead of growth opportunities and mitigating risk.

We require systemic perspectives and leadership to tackle these challenges using all the talents.

And that has consequences.

Even in the social impact sector, while the individual organisations that Mike worked with could never be faulted for their passion and commitment, some of the systems they worked in were dysfunctional.

Multiple organisations pursuing the same goals with little deep collaboration – a lot of overlaps, duplication and gaps. In Mike's

> *"The challenge with these wicked problems is who is in charge of the system – its everyone's and no-one's responsibility. So, actions fall between stools."*

experience this is prevalent in health, in disability, in refugees, and emergency response.

During most of his career, he thought about social change and impact through the lens of the leadership of organisation he worked for, rather than how, by working with other leaders across all sectors, they could collectively change the system.

In the public sector there is very mixed ability to think in this way – local government is often excellent at this, central government less so. It's well-known that health leadership is often dominated by professional and clinical silos.

And on climate, we can see the scale of the collaboration challenge in the recent COP 28 conference in the UAE.

> *"It is not enough to lead ethically or lead with social responsibility. The challenges are too big and too cross-cutting. We need to practice our leadership differently."*

Learnings from the Red Cross

The Red Cross' leadership began to recognise this from learnings from events like the Grenfell Tower fire, where issues of people and place clearly involved multiple organisations, small and large, across sectors. Mosques, youth organisations, local businesses all became emergency responders and supporters of recovery in that moment.

But these organisations and the Red Cross were not working effectively together. They realised they needed to work differently when the next big emergency came along.

So, during Covid, the Red Cross worked innovatively with the private sector, with companies like Tesco and Aviva where the partnership was not purely a financial transaction. It sought out cross-sectoral value exchange harnessing Tesco's network and reach, and Aviva's role in supporting people at a moment of great distress. This took curiosity and leadership commitment beyond a traditional donor partnership.

The Red Cross also helped found new collaborations to help build collective approaches.

The VCS Emergency Partnership with more than 250 organisations came together after Grenfell to work towards local and national resilience – from Cabinet Office to business In the community to national and local voluntary organisations.

Wicked problems

But the challenge with these wicked problems is knowing who is in charge of the system. It is everyone's and no-one's responsibility. So, actions fall between stools.

And it would be easy to blame government for that. But are we humble enough to admit that sometimes it's all our responsibilities? And anyway, many of these problems are too big or too complex for government on its own.

Leadership

So where does this start?

Mike's contention is that the leaders of every organisation who express a desire for social impact have a responsibility to think and act systemically and with ambition.

Collectively, we need to be action oriented beyond the boundaries of our own organisation towards the bigger issues where our organisational competence can contribute in combination with others.

To work in this kind of way requires the practice of a different kind of leadership in **which we leave our organisational baggage at the door**.

This kind of leadership needs:

- Individual and collective humility
- Recognition that we all need to change if we are to achieve better outcomes
- Curiosity about adjacencies; Deep listening to others' personal and professional theories of change in your space
- Sensing skills – what patterns can we see and what is coming down the track? How can we co-create a different future?
- The presumption of good intentions, acting with courage, patience and compassion

Trust is often raised as an issue here. It is critical to pay attention to it, but it is an outcome.

And the Boards of all organisations need to buy into this too – to see a bigger picture than the boundaries of their own organisations and hold their leadership accountable for a blend of system impacts as well –as classic organisational performance.

This is not straightforward work, but as Harry Truman said: "Isn't it amazing what you can achieve if no-one cares who gets the credit?"

> *"Isn't it amazing what you can achieve if no-one cares who gets the credit?"*
>
> **Harry Truman**

Keynote 4: Ethics

Generative AI and the future of the professions

Professor David Leslie Director of Ethics and Responsible Innovation Research at The Alan Turing Institute, and Professor of Ethics, Technology and Society at Queen Mary University of London

www.turing.ac.uk/people/researchers/david-leslie

More and more people are considering how new and emerging AI technologies, like large language models and generative AI, will impact their personal and professional lives. Professor Leslie discussed the ethical questions around the effect of AI on professions

Thomson Reuters' 2023 report, *The Future of Professionals*, found that 91% of professionals surveyed believed that the emergence of generative AI would have a moderate, high or transformational impact on their professions in the next five years, and 87% believed that new professional skills and training regimes would need to be put in place to cope with the transformation at work. About one third felt they'd experience a demise of their profession over the next five years due to skills redundancy and automation.

Other surveys (KPMG and McKinsey) showed people had concerns about the effect of AI on job security and several areas of AI-related risks including inaccuracy, cybersecurity issues, intellectual property infringement, regulatory compliance challenges, model opacity, privacy violations, labour displacement and algorithmic discrimination. Perhaps most troublingly, of the McKinsey study respondents who reported that their firms were using generative AI, only between 15 and 30% were working to mitigate this range of risks. Despite these risks, companies are still in the "move fast and break things" stage of adoption.

The symposium explores the common ground for social responsibility across the professions. For AI technologies, identifying a common ground involves identifying the common crisis. It involves developing a shared understanding of the common hazards and adversities that professionals face as we enter the rapid industrialization of advanced AI technologies. Professions will first face the practical crises triggered by the broadly unregulated adoption of generative AI long before widespread social responsibility protocols and governance regimes place constraints on the race for competitive advantage that is currently driving the adoption of these technologies. We must therefore think common crises first.

A "crisis first" approach has implications. Much relevant research and policy analysis on the relationship of AI to the transformation of the workplace and the professions, has been characterized by a focus on the so-called Fourth Industrial Revolution and the meteoric rise of big tech, big data, and platform capitalism. This is symptomatic of what we might call "AI-epochalism": the assumption that, for better or worse, our own epoch of rapidly accelerating digitization and "informatization" is unique, unparalleled and worthy of undivided attention. From this standpoint, we must think about the social responsibility implications of AI-induced transformation, from the digital technology outwards; this is the idea that when we come to crises from an AI-epochalism standpoint, we're thinking from the technology and the problems that they pose outwards, as opposed to thinking about how broader social contexts are drawn into the production of a new set of technology.

While it is useful to interrogate the degree to which present day digital innovation has brought the professions to a dangerous inflection point, a sense of AI-epochalism can also lead to myopic modes of information centrism and tech-centric short-termism that impair our vision of past, present and future. It can impair understandings of the past, by concealing from plain sight, longer term socio-historical patterns of inequity and discrimination, and that therefore directly and indirectly influence the socio-technical contents of the digital transformations of the professions. It can impair understanding of the present by limiting the levels of analysis to areas circumscribed by the narrow set of ethical and legal issues that are seen to serve specifically in the current constellations of AI and data collection practices, rather than embedding these practices in the complex social, cultural, political, and economic histories that have shaped it.

And it can impair visions of the future by creating a false sense of the insurmountably, revolutionary momentum of current technological change, leaving critics and those who are analysing the technology feeling disempowered in the face of a creeping technological determinism.

To avoid this kind of short sightedness, we should place our understanding of the challenges posed by AI technologies to the professions in the broader historical context of "the heritage of democratic inequity", a heritage in which norms of basic corporate social responsibility and the basic dignity of work are anchored. The heritage of democratic equity is the range of contemporary practices, norms, and identity formations that ensure the full and equitable participation of citizens in collective life. It is predicated on the egalitarian principle that all people possess an intrinsic moral worth and a common dignity that entitle them to membership in a moral community, where every person can regard themselves as having equal value and can participate in common labours and a democratic future.

But the history of the heritage of democratic equity tells us is that over the centuries of societal modernisation of how modern democratic societies have formed, we have learned that the capacity for full and equitable participation in democratic forms of life is dependent upon universal realization of interdependent elements of individual autonomy, social solidarity, and of communal integration, which taken together form the interlocking preconditions and normative anchors of social responsibility itself.

So to better understand the current crisis faced by the professions in the wake of generative AI industrialization, that must therefore widen our analytical periscope about how these and other related AI-technologies are impacting individually formative aspects like: personal autonomy, identity formation, and physical and psychological integrity on the one hand, as well as societally-formative aspects like solidarity, communal integration, and infirmity, information integrity, and communication.

The individual level

At this level, risks arise from the incautious spread of genetic technologies as a kind of force multiplier of already existing induced hazards. For nearly a decade, researchers have recognized at the level of identity formation, the proliferation of individual-targeting algorithmic curation has tended to impoverish autonomy and across a range of human activities. For instance, in the domain of e-commerce, strengthening regimes of consumer surveillance have fuelled the use of large-scale behavioural technologies that have enabled incessant practices of hyper-personalized demographic profiling, consumer curation and behavioural nudging. Such technologies intended to exploit the emotive or emotional vulnerabilities and psychological weaknesses of targeted people instrumentalizing them as monetizable sites of behavioural surplus and treating them as manipulable objects of prediction, rather than as reflective subjects worthy of decision-making autonomy and moral regard.

The collective level

There are a similar range of risks at the more collective level. Over and above these threats to basic dignity, autonomy and identity formation, researchers have long shown the risks to processes of social integration posed by the proliferation of AI-driven behavioural steering at the collective level.

In digital communication environments, for example, social media and search engine platforms have mobilized opaque computational methods of relevance ranking, popularity sorting and trend predicting, to produce algorithmically curated and calculated digital publics, devoid of any participatory social or political choice. Rather than stewarding informational plurality and the deliberately achieved political will of interacting citizens, this vast meshwork of connected digital services shapes these computational publics in accordance with the drive to commodify monitored behaviour and to capture user attention.

And as this manufacture of digital publics is ever more pressed into the service of profit seeking by down streaming the algorithmic mechanisms of profiling, engagement-driven filtering, and covert behavioural manipulation, democratic agency and participation-centred social cohesion will be increasingly supplanted by insidious forms of social sorting and digital activism. Generative AI today promises to be a force multiplier of these risks and potential harms.

The irresponsible or malicious development and use of generative-AI technologies could lead to the scale of production of disinformation, propaganda and false but true sounding information, potentially flooding the Digital Public Square with misleading and non-factual content. This could undermine social trust in information ecosystems and tear at the fabric of reliable public communication on which modern democratic ways of life rest.

Conclusion

There is a broader landscape of common crises at individual and societal levels.

It is in the interdependent relationship of individual autonomy, inter-subjective communication, informational integrity, and collaborative social reproduction, that we find this deeper wellspring of democratic equity upon which modern free and open societies rest. A community of dynamics, bonded with democratic society, placed the burdens of reproducing the world together collaboratively, evermore exclusively on the interactive relationships forged by mutually accountable individuals, who are thereby able to form their identities as rational, autonomous and responsible agents through precisely such processes. Processes of shared problem solving, of creative self-expression, of consensus building. All these processes require a kind of sphere of information integrity, autonomy and objective communication.

Keeping the ship of society afloat through the unique contributions of each actor to the sustainment and advancement of all, becomes the common project, and potential for self-realization and individual flourishing likewise comes to be intertwined between every person involved in these cooperative and social endeavours.

David had further conclusions. Contact him at QMU for more insights.

Keynote 5: Ethics

Global health ethics – future trends

Dr Carwyn Rhys Hooper Reader in Global Health Ethics and Law, Course Director (MSc Global Health) and Head of the Graduate School St. George's, University of London

Dr Carwyn Rhys describes himself as an activist within the academic environment, trying to shift healthcare professionals, in medicine specifically, to focus more on global health and increasingly on climate change.

Fast facts / summary

- The world is missing climate change targets, by any measure.
- The impact of climate change on global health is already significant and will be devastating later this century.
- Healthcare professionals, students, and the regulators need to be far more engaged with climate change mitigation than they currently are.
- Global health and sustainability must be at the forefront of medical/healthcare education, research and practice.

Global health can be defined as "those health issues that transcend national boundaries and governments and call for actions on the global forces that determine the health of people' (Kickbush 2006). It can be measured using metrics such as child mortality, distribution of doctors, (life-threatening) disease prevalence and, from 2020, Covid vaccination distribution. Most healthcare professionals, especially in high income countries, were woefully unprepared for a pandemic that was entirely predicted. More pandemics will come.

Global health is not prioritized at all in the education of healthcare professionals. This criticism seems harsh to those working clinically in a very difficult environment, but it also applies to governments, health departments, policymakers, NHS managers, and so on.

Historically, there has been a huge focus in healthcare professions' ethics and professionalism on what is described as clinical ethics –i.e. doctor-patient, nurse-patient, healthcare professional-patient relationships, which are important. This covers issues about the importance of confidentiality, and patient autonomy, the lessons of beneficence in the one-to-one if you like, interaction between patient protection is critically important.

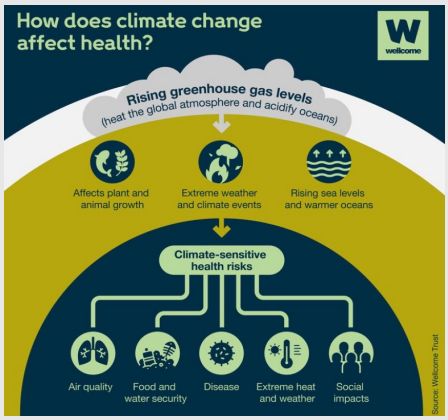
But the biggest challenges facing healthcare systems has very little to do with those individual, patient-doctor relationships. The biggest challenge is global health.

The language of global health has only been around since the end of the 20th century. Global health is inherently an activist discipline, meaning that people who work in global health are usually committed to change and addressing inequities, more than pure study. It is primarily about addressing some of the worst inequities in health globally. This presentation does not tell you the real picture, the death, suffering and trauma that is caused by premature death. The most difficult deaths to experience are in low-income countries, where particularly children and pregnant women die unnecessarily when it is often (not always) incredibly simple to prevent those deaths.

This is in stark contrast to rich countries that put huge resource and effort in preventing children from dying. For child mortality, for every 1,000 live births in Iceland, one child will probably die. Compare that with Afghanistan with about one in 10. Many countries are still in the 40-60 range – astronomically high child mortality. Part of the reason for this is the distribution of healthcare professionals, doctors specifically. In Kenya, a healthcare training professional remarked that 90% of the nurses she's training, fully intend to move to the US and UK to practice on qualification. People have the right to freedom of movement.

The covid pandemic exposed a good example of changing health systems. As soon as vaccines were available, vaccine

Climate change – impact on global health



Between 2030 and 2050, climate change is expected to cause approximately 250,000 additional deaths per year, from undernutrition, malaria, diarrhoea and heat stress alone – World Health Organization (2023)

nationalism came to the fore. Supplies were consumed quickly. The thought of distributing scarce, life-saving vaccines to those who clinically need it first was ignored. This was catastrophic for developing countries. In part, this was the failure to engage with global health as an ambition. Regardless of which normative discipline, framework or theory you're coming from, there is agreement that global health inequities need to be addressed as a matter of duty, not a charitable action.

Climate change squeezes the problem

While already bad, these metrics are getting significantly worse due to climate change. The educated odds are that the world will hit 1.5°C by 2025. The planet is on an awful track. The impact of that on global health is already terrible and will get far worse. But once again, healthcare professionals and those who regulate and govern them, are failing to engage with this subject. Generally there is a huge focus on treating disease and a huge focus on the nation state where people are working. The near total failure to engage beyond that with these huge issues is going to affect all of us, including, citizens of high-income countries. It's critically important that healthcare professions firstly engage with our health, and secondly, engage with climate change – meaning radical steps to change the way they practice health.

The impact on health is already here. The World Health Organization has already taken the view that climate change will have the greatest impact on human health this century and beyond. There is lots of evidence to suggest that climate change is having an horrific impact on mortality, Between 2030 and 2050, climate change is expected to cause approximately 250,000 additional deaths per year, from undernutrition, malaria, diarrhoea and heat stress alone (Source: World Health Organization, 2023). But healthcare professions are barely engaging with the topic.

In 2023 The General Medical Council published the new Good Medical Practice, the primary document that govern the practice of doctors specifically in the UK.

Healthcare professionals have a powerful role to play in response to global health issues. Consider that 4%-5% of all of carbon emissions globally come from the health sector. Some of that is difficult to cut, anaesthetic gases for example. Running ambulances and heating hospitals are big contributors.

The health sector is well placed to lobby governments for change and have a strong duty to do that. Part of the explanation for the ambivalence may be the scale of the problem is so vast and complicated. Certainly some of the philosophical issues are extremely complicated, especially in intergenerational justice. But complexity only gives you half an excuse for not engaging in this.

Most healthcare professionals and medical students are focused on the individual interaction with patients and a technocratic approach to healthcare: either they are unaware of global health and climate change or are disengaged from it and see it as other people's problems. This is a huge failure of medical ethics. This industry should be making waves here like the World Health Organization tries to do.

Ending on a positive, NHS England, for example, does have ambitious plans in relation to net zero. Some of this is within the NHS's control, some of it is outside of their NHS control. But at least at a policy level there is a serious engagement.

Summary

- The next quarter of a century will be critical in the fight against climate change and its impact on global health.
- Health professionals and students have an extremely important role to play in global health generally and a key role to play in ensuring that healthcare, and society more generally, becomes more sustainable (e.g. to ensure that net zero emissions are achieved in good time)
- The current speed of engagement, however, is glacial. This must change as a matter of urgency.

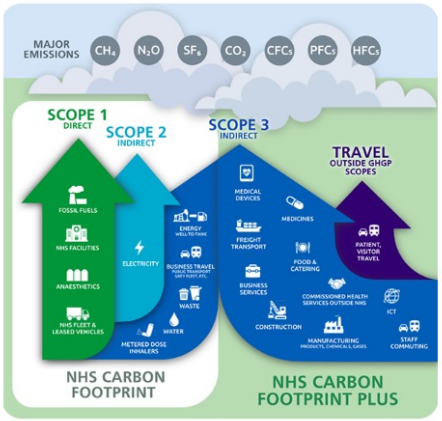
NHS (England) – at least the vision is there...

NHS England – Greener NHS

Our aim is to be the world's first net zero national health service.

We have set two targets:

- For the emissions we control directly (the NHS Carbon Footprint), we will reach net zero by 2040, with and ambition to reach 80% reduction by 2028 to 2032;
- For the emissions we can influence (our NHS Carbon Footprint Plus), we will reach net zero by 2045, with an ambition to reach an 80% reduction by 2036 to 2039.



Keynote 6: Ethics

Engineering ethics

Dr Rhys Morgan Director of Engineering and Education at the Royal Academy of Engineering (RAEng)

Rhys gave an overview of what the engineering profession has been doing about ethics in recent years, how the RAEng thinks about ethics in engineering differently to other professions, the reality of applying ethics at the shopfloor level, and standards.

The Royal Academy of Engineering and the Engineering Council, the two leading bodies in the profession, have been working in ethics for about 20 years. They co-wrote The Statement of Ethical Principles for engineering in 2005. There are four core ethical principles.

1. Honesty and integrity
2. Respect for life, law, the environment and public good
3. Act with accuracy and rigour
4. Leadership and communication of ethical behaviour to the wider community

These principles are very much a core part of professional engineering standards in the UK.

In 2017 the principles were brought up to date, as the working group believed that little progress on ethics had been made over the last decade. This led to the creation of a new joint committee on ethics between the Academy and the Engineering Council chaired by Professor David Vogel, an eminent chemical engineer and teacher of ethics at University College London.

In 2022, that committee published its first report, to help maintain society's trust in the profession. Some conclusions include that, firstly, public confidence in the profession is very high. The Ipsos Mori veracity index in 2022 had engineers second only to nurses, ahead of doctors, philosophers and clergy, and of course politicians. The report also acknowledged that we can't be complacent. There have been several high-profile instances of questionable ethical behaviour by engineers in recent years, including the Boeing 737 Max hardware failures, following software failures a few years ago, and the tragedy of Grenfell Tower. The report provides a roadmap for the engineering community to improve its ethical practices, and the Academy is already making some good progress, working with the Engineering Professors Council and Engineers Without Borders to develop new pedagogies and frameworks for the teaching of ethics.

What are the important questions we had to ask ourselves? The question is, how well is the profession doing ethically now so that we can measure progress in the future? In 2023, we commissioned a consultancy to undertake an independent audit of ethics

The role of the individual engineer

- Does the 'average' engineer think about ethics?
- What can we do to support them?
- Education and training on global responsibility

in UK engineering. Some of the highlights: engineers and technicians report good ethical practive and culture within their organizations, more so than the workforce in other sectors. Engineering firms identify safety, health, the wellbeing of workers in the business and cybersecurity as some of the most relevant ethical concerns that they face.

But there are worrying signs in the data as well. Many engineers and technicians feel dissuaded from raising concerns in the workplace. There is little professional support including from professional bodies and engineering institutions. These are only now beginning to explore ethical issues, and event then in an unsystematic way.

Another headline is there's seems to be a lack of support for engineers and technicians in small firms. Given that over 90% of UK engineering companies have fewer than 50 employees, that is the majority. The report shows the profession has a sound ethical base, but it cannot be complacent.

Engineering vs other professions, and shopfloor reality

Is ethics in engineering different from other professions?

Engineers may think in different dimensions or scales compared to other professions. In medicine, the primary ethical relationship is between the doctor and patient. In engineering, the work may have implications for 10s of thousands or millions of people, directly or indirectly. There are both short term and long-term consequences of our actions. Building infrastructure is incredibly disruptive to society, it may take several years or decades to complete. It may also last for hundreds of years, and so has multi-generational consequences in terms of the timescales – there are working bridges that are almost 2,000 years old.

So professional engineers must consciously think about these different scales of impact of their work. Computer scientists Professor Stuart Russell in the BBC Reith lectures a few years ago asked if the technologies that software and AI engineers develop will bring about changes in human behaviours, values and societal norms. If people can only draw on our values today, how do we future-proof ethical considerations when those values might be outdated later? Should we even consider the values of future generations in our ethical considerations today? He went on to say do we even have the philosophical models of how we make decisions now for our future different selves? This is a very interesting question.

Let's also consider the poor individual engineer in all of this. Many engineers working on the shop floor are expected to just get the job done. Early in his career Rhys worked at a water meter manufacturing company in Luton and he questioned the ethics of making water meters; should products be produced that make people pay for what should be a fundamental human resource?

But the reality is the business needed to make the water meters – so often engineers don't have the time to think about these ethical questions. Some of the ideas are quite abstract and disconnected from the real daily job, much more so than a doctor who works on the patient in front of them. This a failure of the education of engineers, where we have not provided the space in our curriculum to cover this thinking. This is changing.

Education of engineers needs to change

Fundamentally the nature of teaching of engineering has tended to on convergent thinking, the mathematical solutions to e.g. the building of a bridge over the river. Professor de Milo at University of Bath wants us to teach engineers in divergent thinking, ask questions like "Do you really want a bridge? How often you're going across the river? And have you thought about the impact on communities, and ecosystems?" Educators do not give our engineers enough space to ask those questions.

Now with the help of Engineers without Borders, we are helping academics and educators to frame engineering differently in the context of what we call global responsibility, ethics, inclusion, and sustainability.

Standards and trust

Engineering has high levels of trust is partly that the work involves a risk to life. Engineers know this. Over time, independent practicing engineers outside companies have developed professional standards, who work with our professional bodies to perfect these standards. These cover everything from domestic wiring regulations to decommissioning nuclear power stations. Ethical, competent engineers, we call for these standards and sensible governments listen, recognize their importance and enshrine it in law. Individual engineers working on the shop floor don't need to think about their ethical responsibility every minute of the day. They just need to ensure that their products have the right fit and tolerance or it fails the safety inspection.

The problem is, when the standards are removed in the bonfire of red tape, and the checks and tolerances slip, and nobody is checking. Or worse, people are encouraged and willingly cut corners and use inferior materials. When new technologies like AI come along these may encourage less checking.

As our technologies and engineering grows increasingly complex and interdisciplinary, it brings subjects like behavioural science, behavioural psychology, economic neuroscience, global health, and other disciplines together. So engineers need to broaden our ethical thinking to adapt to that interdisciplinarity and be at the table.

Ethics panel debate

Ethics and the professions

Chair: **Professor David Leslie** Director of Ethics and Responsible Innovation Research, The Alan Turing Institute

Panel

Dr Carwyn Hooper, Reader in Global Health Ethics and Law, and Head of the Graduate School at St George's, University of London

Dr Rhys Morgan, Strategic Projects Director for Skills and Inclusion at the Royal Academy of Engineering

Prof David Stupples, Professor at City, University of London

Emma Crichton, Innovation Director at Engineers Without Borders UK

Prof Corinna Haenschel, Professor at City, University of London and chair of the university ethics committee

Each panellist summarised the position in their profession:

Dr Carwyn Hooper

Fifty years or more ago, medical ethics and law was barely part of formal medical professional training. Most medical professionals were, no doubt, practicing ethically and legally, but the importance of ethics and law education within the healthcare professions was not formalised. That has changed radically in recent decades. Thanks in part to the regulators (i.e. the General Medical Council) and other organisations, ethics and law and medicine is now very much embedded in medical education. It's a requirement, for example, that ethics and law are taught and assessed. However, while the commitment to clinical ethics is strong, and some commitment to public health ethics is evident, there is still a disengagement with global health ethics (and law). For the curricula of the future, we need a greater commitment to global health ethics, especially in relation to climate change.

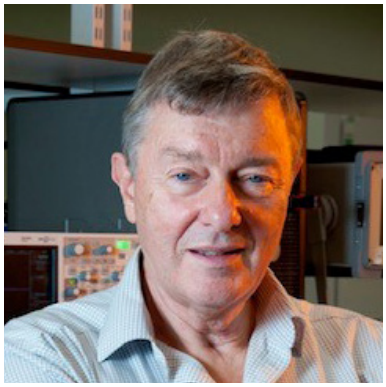
Dr Rhys Morgan

Two additional points: 1. Standards. The question is, should standards be used as a baseline minimal acceptable requirement, or should they be set at the highest expectation (to include ethics) for delivery? At the moment they are more likely set at the minimum requirement and we just expect engineers to do better than that. And 2. The point about practical, factory-floor engineering. There's conflict for the individual engineer to both uphold those ethical principles and the pressure they get from their senior bosses on cost-effective delivery, that is the best outcome for the business. There is work that professional bodies must do to support individual engineers to be ethical in their role and to challenge the pressure they feel.

Emma Crichton

Engineering must be reshaped to deliver a safe and just future. As we recognise the challenges of our age that are highly complex, that the world is changing fast, engineering is a mechanism for humanity to help create a future that we want to live in. EWB talks about “globally responsible engineering” – the recognition that to achieve and build things within the limits of our planet should be at the heart of why we do engineering. Having diversity, generative practices, being purposeful and being responsible for the environment and community, are very important parts of what it means to be an engineer.

But this is not reflected in day-to-day practice, nor in the space and time engineers are given to explore this and put these principles into practice in their jobs. All professionals need support to understand and consider the wider impact of the decisions they make. If we are given this power, it could help attract more people into the professions, with wider and different skill sets, such as creativity and critical thinking, as well as maths and logical thinking.



Professor David Stupples

Satellites are taken for granted but without PNT – position, navigation, timing – satellites, the electricity grid, telecoms, transport systems, online bank transfers, would all stop.

In space engineering in the 1980s to 2000s, ethics was not really practiced. In 2001, the cube sat was invented, which completely democratised space. Cube sats are 10cm3 – very small and very versatile. This has put a huge amount of junk into space: 25,000 objects of $10cm^3$ and larger, 50,000 of $1cm^3$ to $10cm^3$, and about 100 million pieces that are smaller than – equating to c. 9,000 metric tonnes of metal junk in space.

Ethically, how do we reduce the rubbish in space? Two methods 1. It can be collected, brought to a lower earth orbit and it can burn up on re-entry. 2. Repair the defunct satellites using robots. This requires AI because the space craft needs to be autonomous. Ethics has been an afterthought, but here at City University the space courses now have ethics built into them. Students must learn to become responsible for what we do in space.

Professor Corinna Haenschel

The City University Ethics Committee guides courses on ethics best practice, covering integrity, being truthful, being honest, being able to admit to mistakes, making changes in order to correct their mistakes. The committee is involved in policy making and governance. It’s important that on individual research projects we ensure that best practice is applied and, at the bigger level, what principles we need to apply. In governance, we must ensure that an ethics research application is written in the correct way. The university covers issues with data protection, covering how do we transfer data, how do we access and open data. There is a sub-committee here that looks at ethics around AI and where there is no human intervention.

Corinna’s research has involved a crossing-cultural study, where UK architects and engineers go to different countries including Italy to see if certain “empty cities” with high migrant populations can be redeveloped by “reorganizing the life” of these spaces, allowing engineers to help develop better communities. There is also societal ethics: how can engineering be more inclusive? There are still bias assumptions in this profession. There is increasing diversity, people from different countries and more women are included in our research projects. This must be sustained.

with **Professor David Leslie** and the audience

David Leslie: There is growing pressure to do research impact assessments before a research theme is approved, and greater expectation of a return on what researchers are doing. How does this effect ethics?

CH: Writing an impact statement used to be seen as a tick-box exercise but increasingly its used as a training tool to improve professionalism and it is more vital to the research, because it covers e.g. data protection and the risk of private research and data being hacked. The message is training, training, training.

RM: Engineering has seen a big shift in the culture around health and safety. H&S is now very engrained into every part of an individual engineer and technician's life. It's about practice, repetition, and continual messaging. You can do this with ethics as well and engrain it.

Q: David Leslie (DL): Interdisciplinarity in the professions and your areas. The challenge is to integrate other perspectives into the way that technical practices are undertaken. In AI, when we create situations where public is involved in co-design a project or assessing risks, we must deal with different vocabularies – technical, civic and general. Now we must integrate philosophy, humanities, and social scientific vocabularies. Can these all be accommodated?

EC: In an engineering module at university, a lecturer asked who agrees with nuclear power; every student put their hand up. Engineers think differently. The way we are trained, our background and values focus on the practical's, its a narrow perspective. But more people have a right to know how the world around them is designed. Our work will affect most humans. The idea of engineers working alone is scary. We need to involve other cohorts of skills and the public. We must embrace the idea of speaking in other languages, including social science.

DS: Most engineering is done through contracted projects, so there is a cost limit to what we do. If we took on some of these ethical projects, there would be a cost overrun that would impact the company. So there needs to be a change at the very top on how project specifications are written. If we don't do that, we will produce the same engineering, same criteria, as we have done for decades. On the Boeing MAX 9, parts of the fuselage were outsourced, and corners were cut in the pursuit of cost-savings alone. We must think about procurement with ethics integrated.

DL: Bringing social scientists into the room, with a big technical /engineering project, is often an afterthought.

CH: Clinical research is often co-produced; we bring service users in to collaborate to explain the user experience.

DL: We need to think more about Science for Society and practice this for real. It would necessitate cultural transformation in the professions.

(After a third question, David opened the questions to the audience):

Audience member 1: Two points: 1. A major healthcare ethics issue is more black and ethnic minority women dying in childbirth. 2. History shows cases of qualified doctors who have allowed patients to die by not changing their practice because they had the cushion of professional training and were above reproach (Hungarian physician Ignaz Semmelweis).
CH: Maternal mortality is far higher in sub-Saharan Africa, but even in high income countries the death rate is considerably higher amongst some demographic groups than others. We teach the impact of structural racism within healthcare. This has become more embedded in the discourse. However, there is a long way to go to rectify inequities as the Covid pandemic demonstrated. Secondly, yes – there are many instances of abuses of medical authority and resistance to medical innovation. An essential way to tackle this is to embed global healthcare ethics in medical education.

Audience 2: How do you protect people in training who see malpractice and report it – the whistle blower? Consider the Lucy Letby (rogue nurse) case. People must be protected if they raise issues.

Also its pleasing to see more professionals consider the holistic impact of their work on society now and engage locally. Consider Practical Action who go into local communities and devise solutions for them that can be maintained locally, rather than a Bog Foreign Aid solution that is too technical.

DS: (giving credit to a colleague's research) You cannot change cultures, but you can change behaviours. Behaviours will eventually change the culture. It's the duty of educational facilities like City to change the behaviour of students as they train and study. The problem is where young people with new ideas hit old professionals with engrained practice and hit resistance – but this cohort are retiring.

CH: On the whistle blower question, we teach students to first raise concerns and have the confidence to do so, to know who to speak to. But healthcare education is very hierarchical, and students often don't feel comfortable raising issues. There are still many instances where people see very poor behaviour and do not feel able to challenge it. There is a rise in the number of cases raised by students, but they do not always wish to raise a formal complaint and many have concerns about the impact that raising concerns will have on their careers. Despite "changing of the guard", progress is too slow.

EC: EWB is interested in how "change makers" can be helped, full stop. Engineering funding bodies tend to have a bias towards funding technological advances, such as AI and greening aviation. But we need to finance the human beings behind those changes and the people who will shape our practices far more broadly.

(More comments from other parties were made in this panel debate)

Sponsor view

Engineers Without Borders UK

Emma Crichton Innovation Director

For a moment, to focus on the "E" in STEM, approximately a quarter of a million new engineers will be educated at UK universities between now and 2030. If they become engineering practitioners, they will work until 2065-2070 contributing over 2 billion days actively "doing" engineering and we all know the decisions they will make can have positive and negative impact.

That's why since 2021, Engineers Without Borders UK supports the drive behind City's Social Responsibility Symposium. This year, it felt it was critically important to explore the pressing need for global ethics as a core part of educating healthcare professionals, the growing role for 'tempered' radicals to shift practices within companies and the opportunities for collective and cohesive leadership to address 21st century challenges. The sessions had a mix of theory and practical examples e.g. hearing from Suez on how a focus on social value can inform strategic decisions, of how to best inspire cultural changes towards more globally responsible practices.

Engineering Without Borders UK is a sponsor as part of our partnership with City, University of London. The highlights of our work together includes:

- Since 2016, nearly 2,400 students in City's engineering department have participated in the Engineering **for People Design Challenge**, as part of their degree. The Engineering for People Design Challenge is run in 47 universities in South Africa, the UK and USA, reaching over 12,000 students. The design challenge simulates real-world scenarios in a supportive environment using a project-based learning approach, helping students grasp their impact on both people and the planet.
- This year Engineers Without Borders UK is working to enhance the "Engineering for Society" module to guide engineers on how to ensure the decisions they can influence have positive consequences for people and the planet.
- City, University of London is also a part of the Systems Change Lab that Engineers Without Borders UK and the Royal Academy of Engineering has been convening, to explore and test how and why to integrate global responsibility as a central feature within university engineering education across the UK.

Find out more at **www.ewb-uk.org**

Engineers Without Borders UK is working to reach the tipping point where we put global responsibility at the heart of engineering. Part of a global movement of over 30 Engineers Without Borders organisations, we inspire, upskill and drive change within how we teach and practice engineering.

Competencies of Global Responsibility

The Global Responsibility Competency Compass is organised around four guiding principles of global responsibility. Each principle has three associated competencies (one **Knowledge**, one **Skill**, one **Mindset**).

City's tradition of providing high quality education relevant to business and the professions dates back 160 years. For many of our graduates, time spent at City laid the groundwork for leadership, innovation and excellence that have changed the world we live in.

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