



The Scottish Parliament
Pàrlamaid na h-Alba



Scotland's Futures Forum
Fòram Alba air Thoiseach



Data Vultures Destroying Democracy?

Our phones and laptops harvest information on everything from our habits to our likes and medical issues.

Information is collected and shared without our awareness or permission by data gathering companies and so-called 'data vultures'.

Who is regulating this mass surveillance and how can we protect our privacy and democracy from a trend that is undermining equality?

SATURDAY 13 AUGUST 2022, at the Scottish Parliament

Introduction

This event, which took place as part of the Scottish Parliament's 2022 [Festival of Politics](#), explored the increasing role of data collection and use in our society.

In an open question-and-answer session, the expert panel reflected on technological innovation and its impact on us as individuals. They also explored the challenges of public understanding and regulation, as well as the implications for democracy.

This report outlines the key points arising from the debate and was produced by Rob Littlejohn, Head of Business at the Futures Forum.

Key messages from the event

At the moment, data collection is largely unconstrained: "It is a huge data ecosystem—almost a wild west

Political campaigns can target people through behavioural micro-targeting, using the profiles of them that are built up online.

MORE HERE

Other resources

[Big data: why should you care? – Video in The Guardian](#)

[Recommendation on the ethics of artificial intelligence \(unesco.org\)](#)

[Artificial Intelligence and Accountability | Scotland's Futures Forum \(scotlandfutureforum.org\)](#)

Partners



Panel

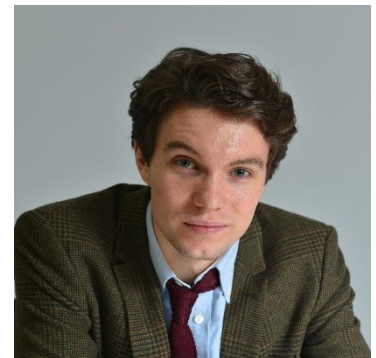
Professor Ewa Luger is co-Director of the Institute of Design Informatics at the University of Edinburgh, Fellow of the Alan Turing Institute, and Director of Research Innovation at ECA. Her research explores social, ethical and interactional issues in the context of complex data-driven systems, particularly AI.

Ewa is an expert adviser to the UK Department for Culture, Media and Sport, a member of the Leadership Circle for the Scottish Government's AI Alliance, and she works with the World Economic Forum on issues of data and trust. Her forthcoming book is titled "What Do We Know and What Should We Do About AI."



Dr Sam Fowles is a barrister specialising in public and constitutional law. He has worked on many of the most significant political cases of recent years including Miller/Cherry v The Prime Minister ("the prorogation case") and Hamilton v Post Office ("the Post Office appeals").

Sam is Director of the Institute for Constitutional and Democratic Research and a lecturer at St Edmund Hall, University of Oxford.



Professor Charles Raab is a political scientist, a Professorial Fellow at the University of Edinburgh, and a Fellow of the Alan Turing Institute. He conducts research and publishes on privacy, data protection and ethics, surveillance, and regulatory policy and practice.

Charles is a Director of CRISP (Centre for Research into Information, Surveillance and Privacy), and is a member of the Home Office Biometrics and Forensics Ethics Group.



Chair

Esther Robertson is on the board of directors of Scotland's Futures Forum. Esther is currently the chair of Fife Cultural Trust and a Director of the Fife Housing Group, having previously served as interim chair of NHS Lothian, senior governor at the University of Aberdeen and chair of NHS 24.

Esther was actively involved in the campaign to secure Scotland's Parliament as Co-ordinator of the Scottish Constitutional Convention and as a member of the Consultative Steering Group that developed the standing orders for the Parliament.



Discussion

What is happening now?

WHAT IS DATA AND WHERE DOES IT COME FROM?

The discussion opened with a question on what data is, how it is collected and how it is used. Professor Charles Raab noted that lots of data can now be captured that can be very useful in policy-making debates, in relation to the environment for example. However, the issues are mostly around personal data, which can be very sensitive data about someone's identity: the facts of their behaviour, movements, shopping and entertainment habits, likes and dislikes, gender, social class, location, health and so on.

Data on people can be collected through their interaction with devices connected to the internet: not just mobile phones and tablets, but smart equipment, which are real-world things linked to the internet.

At the moment, Professor Ewa Luger suggested, data collection is largely unconstrained, not just large companies like Facebook and Google but smaller companies that build the devices we use and create the applications on them: "It is a huge data ecosystem—almost a wild west".

An example is the development and use of cookies on websites, which can collect information on your behaviour not just on that website but on any website that you go to afterwards. And, Professor Luger noted, the collection is likely to increase in the future: "As more sensors are developed on your phone and the systems that you use all the time, more data, and different types of data, are collected."

WHAT IS DATA USED FOR AND HOW?

As Professor Luger said, companies can build a profile of individuals through these technologies: "That data is brought together with other types to predict specific types of things about you as an individual and your behaviour." The results of this analysis can then decide what happens to us in our professional, personal and economic lives.

Much of this data analysis is done through artificial intelligence (AI), itself a new and developing field. Professor Luger described AI as a group of different methods that try to replicate a sense of intelligence. Most of the AI methods that are discussed are machine learning, which is an algorithm-based set of methods, but there is another class of machine learning algorithms called deep neural nets, which are self-learning. These are more complex and provide outputs based on ideas about how the human brain works.

HOW DOES THE ONLINE WORLD WORK?

When we do things online – or use smart equipment, which are real-world things linked to the internet – we are experiencing a world very carefully created for us.

Professor Luger outlined how the devices and systems we use are designed to make things personalised, convenient and immediate: "When we design systems ... we are trying to attract your attention and keep it—that is the goal of pretty much all the services that you interact with. The longer we keep your attention, the more data we get, and the more likely you are to buy stuff."

However, Professor Luger noted that everything is simplified to the point at which it is binary: “To some extent, politics has always been binary, but it is more so today, with the extreme polarisation of different perspectives that almost, through the mediated internet-based environment, look like warring factions.”

Designers also seek what we call “habituation”—an interface that is supposed to train you to use it in a particular way. Companies such as Microsoft create software that looks very similar across all the packages, so that, over time, people know how to use all those packages.

Habituation can be used for more nefarious purposes, not just in software but in online experiences. We check tick-boxes online all the time, and research has shown that we are more likely to agree to something if it is framed as a tick-box than we are if it is framed in a different way.

These systems train people to do stuff, and lots of complex and problematic tasks sit below the design rules. As Professor Luger noted, once companies have someone’s online attention, they have their data, and then that person can be known in ways that nobody has been able to know them before, by companies that they would not recognise.

WHAT DOES THIS MEAN FOR HOW WE COMMUNICATE?

Most people online gather their information about the world, and about politics and current events—whether they intend to, or whether it is a by-product of online engagement through Facebook or Twitter—through soundbites and abridgements of wider information. Research has shown that very few people actually click on a news story.

Many of our individual decisions are therefore being made on the basis of incredibly scant information and headlines. As Professor Luger said, “A lot of the time those are impossible decisions, yet we reduce them to quick clicks—we take just a top slice of information because that is what is presented to us, and we make those decisions.”

From a democratic point of view, Dr Sam Fowles pointed out how political campaigns can target people through the profiles of them that are built up online. He referred to this as behavioural micro-targeting, which allows organisations not just to control how we see the world but to specifically target people who are receptive to particular messages. This means that political actors can tailor messages for particular consumers to alter how they might see the world or vote.

Overall, data impacts on the prism through which we see the world. We now interact so much online: we get our news, speak to our friends and date online, and even when we are not actively online, we are transferring data online. Dr Fowles suggested that it is now increasingly possible to control what a population believes about things through control of that online space.

What are the main issues from the mass collection and use of data?

PROTECTING PERSONAL DATA

The potential for harm from the misuse of data is enormous, on a personal level and on a national and global level of democracy.

Professor Raab noted that online profiles can mean differential pricing and different offers being made to different people. Online, someone might be charged more than another person because the seller knows certain things about them that leads them to think that they are likely to pay that price.

On an even more personal level, some companies have told women to delete their menstrual tracker since the overturning of Roe v Wade in the United States. Such apps not only collect information about them, but share it with other apps and therefore other companies. Indeed, it was suggested that women in some US states are now terrified to look at anything about abortion online, because they fear they will be tracked and seen to be breaking the law.

As Professor Luger said, “It takes only a tiny change in the political climate for what you think is benign data collection to become heavily politicised and problematic. You never know what side of the law you are going to be on.”

EXPLOITING THE BENEFITS PROPERLY

Professor Raab pointed out that there are key potential benefits from the collection and use of policy-related data in areas such as the economy, the environment, energy, climate and transport. However, he said, “there needs to be some oversight and control to make sure that the use of data ... is ethical and legal, and that it is done in accordance with democratic and other values.”

This is particularly important as the majority of AI, for example, is fed on historical data that is drawn from our past behaviours. As Professor Luger said, “Historically we have been racist and sexist, so the outcomes from those machines are racist and sexist.” It will be important to combat in-built bias in the use of data in machine learning and AI.

FRAGMENTING DEMOCRATIC DEBATE

In politics, data is used by political parties and other groups to campaign, target messages and influence voting. Professor Raab noted that the micro-targeting of different segments of the population is often used to provide messages that they already want to hear, which creates or reinforces bubbles of people who supposedly think alike. That process “interferes with the general public’s ability to scrutinise those messages and to assess what is going on in the polity and the public realm.”

In particular, if digital micro-targeted campaigning increases the circulation of fake news and disinformation, it will erode democracy by exacerbating divisiveness and the absence of dialogue across the divides. Indeed, Dr Fowles suggested that behavioural micro-targeting can facilitate a world where individuals make decisions on the basis not of what is true or false but of the parallel reality they are increasingly fed. That makes it impossible to engage meaningfully as a citizen in a democracy.

Professor Luger agreed, noting that “A functioning democracy requires an informed population—you need to understand what you are agreeing to, and to understand some of the wider debates in order to be able to reach public judgment, whether in an everyday context or at the point of making a decision during an election.”

LACK OF ACCOUNTABILITY

The prism through which we experience our reality and engage with our society is increasingly controlled by unaccountable individuals.

We, as citizens, have no way of controlling the decisions that are made about our data. We cannot elect the people who are controlling them, and we cannot fire them. In a lot of cases, we cannot even take them to court when they break the law. That is problematic for democracy because decisions are being made about how we can discharge our powers as citizens by people over whom we have no control.

When we talk about democracy and debate, what we are looking for is collectivism, representation of broad views and reflection—the complete opposite of the online world.

All the issues that we have talked about—behavioural advertising; tracking people and ensuring that they stay with the systems that they are engaging with; and polarisation and lack of governance—create a situation within which personalisation, convenience and immediacy guide our political discourse.

COPING WITH COMPLEXITY AT SPEED

Professor Raab noted that very few elected representatives will have expertise in data and information technologies. This makes it harder for them to evaluate what is going on. We therefore need to ensure that the right support is available to elected members so they ask the right questions of data to make good policies on climate, health, social services and so on.

As an example, Professor Raab noted the recent report from the House of Lords Justice and Home Affairs Committee on the advent of new technologies in the justice system. This showed that pointed to how a group of elected representatives with no expertise can mount investigations into highly technical topics.

This complexity feeds into the the ability of existing systems to respond. Dr Fowles suggested that we are not ready and that there is a difficult balance to strike: scrutiny of proposed regulation is helpful, but existing systems move more slowly than the innovation. Even well-meaning Governments can take a very long time to get legislation through.

More broadly, Professor Raab asked how people in organisations – public and private – who are procuring these systems can evaluate the slick and effective sales pitches from the companies selling them. As with policy making, procurement needs appropriate support to ensure that those procuring can ask the right questions of new technologies.

How can we stay ahead of technological innovation?

There is no simple fix, but all these things—the design rules and the behaviours in which we currently see companies engaging, such as the massive collection of data and the combining of data to make predictions about people as individuals—need to be controlled more than they currently are.

AN INDEPENDENT REGULATOR

All speakers suggested the importance of a regulator who is not only competent, but motivated and powerful enough so that, as Professor Raab said, they can “go after companies and levy significant fines”. Regulators do not replace the need to update legislation, but they can fill some of the gaps. Any regulator should also be accountable to someone other than the Government. One suggestion was for individuals to be answerable to Parliament, with appointment perhaps subject to a two-thirds majority, and therefore unable to be sacked by a Government minister.

EFFECTIVE LEGISLATION

Dr Fowles pointed to the benefits of the General Data Protection Regulation (GDPR), which regulates the use of data at the point of collection and use. He suggested that the GDPR provides a degree of protection and gives citizens a course of action against people who break the rules. It is based on what is almost a principle of contract: “You want to use my data? You have to follow the rules about how you do”.

In Dr Fowles’s opinion, proposed legislation before the UK Parliament reverses that approach. By working on the principle that companies have a right to use people’s data, with the ability of individual to control its use being a derogation, it reduces individuals’ rights over the use and reuse of their data, which Dr Fowles saw as the wrong approach.

More generally, Professor Raab suggested that, rather than legislation that tries to keep up with technology, we need legislation that recognises where technology comes from—decisions made by people who work in technological industries who design and deploy things, and by those who ultimately use its end products.

A DATA LITERATE PUBLIC

A key part of responding to these technologies is for us all to be aware of how they work. Professor Raab suggested that companies and Governments, in particular, need to explain their data practices to the public and to their elected representatives. Such transparency, he said, is absolutely essential.

This is a question for all society. Schools have an important role to play in supporting data literacy: even at primary school level, young kids are learning how to do things and may not be aware of the downsides.

BEWARE THE BIG TECH FIRMS

Professor Luger reminded the audience that large tech companies are in the room when regulation is discussed. The big companies have worked for years to lobby national Governments and at the European Union level. As she said, “these decisions are shaped not by bureaucrats, but by people who have skin in the game”.

Engagement is needed to ensure that proposals are fit for purpose from a practical point of view, but people from these companies have been making economic arguments in discussions on regulation.

IMPORTANCE OF ETHICS AND ASSESSMENTS

Professor Charles Raab noted that all the issues raised are not just a matter of law, but a matter of ethics. Are these tools used to do the right thing?

While “the right thing” may be subjective – and Professor Luger suggested that big tech firms are clear that they are doing the right thing – an open approach to the question can help public debate and understanding.

At the moment, ethics is often dealt with by a legal person, not a moral philosopher or a sociologist or somebody else who thinks widely. That tells us companies are thinking about compliance, not about how they are doing the morally right thing.

How do we get people in decision-making positions to think about the ethical dimensions of what they are doing? Professor Raab pointed to a practical technique called an ethical impact assessment, which is being used in Governments and elsewhere. It deals with where the data comes from, how it is obtained, who else has access to it and what it done with it. It also asks whether the user can explain how, in lay terms, the algorithm works and what impact it would have on minority groups, such as disabled people.

As Professor Luger pointed out, the future is really hard to predict: when a product is created, even the designers cannot be sure how it will be developed or used by others. As such, any assessment has to be repeated as new iterations of the technology develops.



The event panel (L to R): Dr Sam Fowles, Professor Ewa Luger, Professor Charles Raab and Esther Robertson (chair)

What can we do, as citizens, to protect ourselves and our democracy?

BE AN ACTIVE CITIZEN

Professor Luger concluded that our initial priority should be to be active consumers because, she thought, that is what it means to be a citizen today: “You are not just a citizen working in the public sphere—how you consume, what you consume and the rules that you apply are the things that will keep you safe in the short term.”

In particular, she noted the importance of cookie blockers and making sure that we stay informed.

Reaching a conclusion on the question of the event, Professor Luger stated that these companies are not data vultures. “Vultures are scavengers, whereas we are talking about curators and creators of data. Platforms are not benign and neutral; they might want you to believe that they are, but there is a whole infrastructure that is designed to elicit, generate, use, reuse and apply data.” These big tech companies are the problem, and the power rests unfairly with them.

POWER STRUCTURES

In response to a question on power structures, Dr Fowles reflected that “Everything that we have talked about today is about regulation, and the balance and distribution of power.” While this is a new paradigm, it is a very old issue—the oldest debate in democracy: who has power and who doesn’t, and how is it controlled? In a democracy, Dr Fowles noted, that is really the only question that matters.

Noting that Governments work best when they are accountable to us all, Dr Fowles suggested that we need to take a broader look and reform our constitution. In particular, he advocated breaking down the fundamental power structures, in both the private sector and the public sector.

Noting that a lot of data is used for national security purposes, Professor Raab warned against it being used as a reason for unethical practices. Although politicians may frame the debate as a question of balancing our rights, freedoms and privacy against something called “safety and security”, that is a false dichotomy.

One suggestion for improving our ability to hold the state accountable was to elect the UK Parliament through proportional representation and devolve more power to local communities. However, we also need to find ways to hold accountable the concentrations of power in the corporate world. This could include giving the people who work in these firms—the employees—greater power over the sector, as well as giving citizens who are affected greater power to challenge decisions.

OUR DATA, OUR RIGHTS

In conclusion, Dr Fowles suggested that there is an asset, which is our data, and it can be used in a lot of different ways, some of which are damaging to us. He proposed that the simple thing is for us to be able to say, “Don’t use it in those ways.” The way forward is to have simple rules and to hold all those with power accountable for following them.