Background and Reading List

The Government by Algorithm Debate
BCS Law Specialist Group & Society for Computers and Law

Online Webinar: Thursday, April 15th, 2021, 18:30-20:00

The Motion
"This House would prefer to be Governed by Algorithm direct, than by Politicians who are not ICT Professionals and who have never coded software to deliver a functionally useful Algorithm for any customer or user”.

Motion Proposed by: Dr Stephen Castell  Motion Opposed by: Dr Nigel Young
Seconder to Proposer of Motion: Matthew Lavy, Barrister
Seconder to Opposer of Motion: Shobana Iyer, Barrister

Please note: If it seems that criticism is made, or doubt cast, on the competence, honesty, or intellectual capabilities of politicians, this is not meant to be insulting or offensive to any particular person, Party, MP, Minister, or Policy, past or present. And if radical digital ideas, which some may consider wild-eyed or revolutionary, are proposed, this is not designed to promote, encourage or plot sedition, treason or insurrection. This Motion, and its Proposing and Opposing, are intended to be cast without rancour or irritation into the field of ideas, analysis, and the 'envisioning of beneficial futures', to identify professional issues and insights, and for robust collegiate consideration, development and discussion.

The Context and issues
In mid-August 2020, the UK media trumpeted ‘The Algorithm is Dead’, referring specifically to the then ‘hot’ news story of the UK Government’s canning of the infamous A-Level Grade-Assigning Algorithm from Ofqual. The subsequent BCS Policy Team report ‘The Exam Question: How do we make algorithms do the right thing?’ asserted that “Algorithms that change people’s lives - for example when estimating students’ grades - should now meet strict standards of ethics and competence”. That punchy journalistic phrase and the BCS Policy Team report together neatly highlight the important, more general topic of ‘Government by Algorithm’ and issues that go much wider than simply one Algorithm for one Application Area, ‘Decision Making in Education Policy Management’.


British Government Cabinets have rarely, if ever, included Ministers who are skilled ICT Professionals, anyone with formal education, training or experience in computer science, anyone who has ever designed an algorithm, or debugged software source code, or managed an IT project, or written a line of substantive operational software for a customer or user. The question arises: do citizens really wish to continue to see their taxes being wasted on poorly-posed, incompetently directed and algorithmically-doubtful ICT systems and projects, reliant for their conception and management on inadequately technically-competent Government Ministers, in the rapidly-arriving Government by Algorithm future?

Would it not be better simply to ‘Elect Algorithms’ and replace such human naivety with government direct by the AI which politicians themselves evidently seem increasingly, but inexpertly, to think can ‘govern better than humans’?
Some Background Reading

'To Govern is to choose'. 'To Create an Algorithm is to choose'.
To Create an operational Algorithm is to choose, and implement, requirements.

https://www.turing.ac.uk/sites/default/files/2021-03/cahai_feasibility_study_primer_final.pdf

Daniel Seng and Stephen Mason, 'Artificial Intelligence and Evidence', (2021) 33 5AClJ 241

Tackling the algorithm in the public sector By: Tim Clement-Jones 19th March 2021
Lord Clement-Jones CBE is the House of Lords Liberal Democrat Spokesperson for Digital and former Chair of the House of Lords Select Committee on Artificial Intelligence (2017-2018).
Algorithms in the public sector have certainly been much in the news .... The use of algorithms in government – and more specifically, algorithmic decision-making – has come under increasing scrutiny. ...

https://twitter.com/darrenpjones/status/1369409610105372675
Darren Jones MP 9 Mar 2021. Tomorrow at 10:30AM I have a (bit niche) debate in Westminster Hall on the legal status of computer based decisions. The law in this area is out of date but the consequences are increasingly significant.

https://themarkup.org/ask-the-markup/2021/02/23/can-auditing-eliminate-bias-from-algorithms
Can Auditing Eliminate Bias from Algorithms? By Alfred Ng February 23, 2021
A growing industry wants to scrutinize the algorithms that govern our lives—but it needs teeth.

Shaping 2025 and Beyond is a new report from Ipsos Futures experts which describes plausible, thought-provoking scenarios of what the next five years may bring, helping governments, businesses and societies strategise for 2025 and beyond. 19 February 2021

Independent report AI Roadmap Published 6 January 2021. An independent report, carried out by the AI Council, providing recommendations to help the government's strategic direction on AI.

The Fundamental Articles of I.AM Cyborg Law. Stephen Castell
Beijing Law Review, December 18, 2020, Vol. 11, No. 4, 911-946
https://doi.org/10.4236/blr.2020.114055
https://www.scirp.org/journal/blr ISSN Online: 2159-4635 ISSN Print: 2159-4627, proposing establishment of the International Cyborg Regulation Authority, ICRA.
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together by practices and institutions that are regarded as fair. What it means to be fair has been much debated

Independent report  Review into bias in algorithmic decision-making Published 27 November 2020

Preface  Fairness is a highly prized human value. Societies in which individuals can flourish need to be held

by practices and institutions that are regarded as fair. What it means to be fair has been much debated throughout history, rarely more so than in recent months. Issues such as the global Black Lives Matter

movement, the "levelling up" of regional inequalities within the UK, and the many complex questions of fairness

raised by the COVID-19 pandemic have kept fairness and equality at the centre of public debate. Inequality and

unfairness have complex causes, but bias in the decisions that organisations make about individuals is often a

key aspect. The impact of efforts to address unfair bias in decision-making have often either gone unmeasured or have been painfully slow to take effect. However, decision-making is currently going through a period of change. Use of data and automation has existed in some sectors for many years, but it is currently expanding rapidly due to an explosion in the volumes of available data, and the increasing sophistication and accessibility of machine learning algorithms. …

Nearly half of councils in Great Britain use algorithms to help make claims decisions Sarah Marsh and Niamh McIntyre Wed 28 Oct 2020

Tools used widely to inform decisions on everything from housing to school places despite concerns over accuracy Nearly half of councils in England, Wales and Scotland have used or are using computer algorithms to help make decisions about benefit claims, who gets social housing and other issues, despite concerns about their reliability. A Guardian freedom of information investigation has established that 100 out of 229 councils have used or are using automated decision-making programmes, many without consulting at all with the public on their use. This is despite one council admitting that results from one algorithm showed it was only 26% accurate in some instances. The company behind it said it was because people often entered information wrongly. …

Is the UK Government's use of algorithms missing the beat? TMT 28 Sep 2020

The pressure on governments to cut costs and increase efficiency in core governance functions is set to increase. In the UK, the covid-19 pandemic has brought a huge expansion of public spending, while at the same time posing challenges to how public services are delivered. Artificial intelligence (AI) technologies and applications could form part of the solution. They could reduce the cost of core governance functions, improve the quality and speed of decisions, and unleash the power of public data ... However, the use of AI in the UK public sector has taken a hit this summer. ... the Department for Education made a significant U-turn over the algorithm used to determine the A-level results of students ... This was an excellent example of the pitfalls of technology: what may look fair based on complex modelling may not last long in the cauldron of public opinion. ...
Not just A-levels: unfair algorithms are being used to make all sorts of government decisions. The recent use of an algorithm to calculate the graduating grades of secondary school students in England provoked such much public anger at its perceived unfairness that it's widely become known as the "A-levels fiasco". As a result of the outrage - and the looming threat of legal action – the government was forced into an embarrassing U-turn and awarded grades based on teacher assessment. Prime Minister Boris Johnson has since blamed the crisis on what he called the "mutant" algorithm. But this wasn't a malfunctioning piece of technology. In making down many individual students to prevent high grades increasing overall, the algorithm did exactly what the government wanted it to do. The fact that more disadvantaged pupils were marked down was an inevitable consequence of prioritising historical data from an unequal education system over individual achievement. But more than this, the saga shouldn't be understood as a failure of design of a specific algorithm, nor the result of incompetence on behalf of a specific government department. Rather, this is a significant indicator of the data-driven methods that many governments are now turning to and the political struggles that will probably be fought over them. ...

The government’s approach to algorithmic decision-making is broken: here’s how to fix it LORD CLEMENT-JONES, CO-CHAIR OF THE ALL PARTY PARLIAMENTARY GROUP ON AI 18TH FEBRUARY 2020

I recently initiated a debate in the House of Lords asking whether the government had fully considered the implications of decision-making and prediction by algorithm in the public sector. Over the past few years we have seen a substantial increase in the adoption of algorithmic decision-making and prediction or ADM across central and local government. An investigation by the Guardian last year showed some 140 of 408 councils in the UK are using privately-developed algorithmic 'risk assessment' tools, particularly to determine eligibility for benefits and to calculate entitlements. Experian, one of the biggest providers of such services, secured £2m from British councils in 2018 alone, as the New Statesman revealed last July. ...


To govern is to choose. By Lord William Wallace | Mon 11th February 2019

One of the first aphorisms I learned when studying history and politics was: 'To govern is to choose'. ...Good government means taking decisions, even when they are hard decisions. ...


https://doi.org/10.1016/j.clsr.2018.05.011, in which was developed Castell’s Second Dictum: "You cannot construct an algorithm that will reliably decide whether or not any algorithm is ethical".

Dr Stephen Castell

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