Final reviewed version

Auditing algorithms: the existing landscape, role of regulators and future outlook
- BCS Briefing

May 2022

BCS
The Chartered Institute for IT
3 Newbridge House,
Newbridge Square,
Swindon SN1 1BY
BCS is a registered charity: No 292786

Final reviewed version

Table of Contents

This document

This is the BCS briefing for the UK government's discussion paper[1] 'Auditing algorithms: the existing landscape, role of regulators and future outlook'. That paper is published in conjunction with the discussion paper[2] 'The benefits and harms of algorithms: a shared perspective from the four digital regulators'. BCS has produced a separate briefing to accompany that report.

1   Purpose of the DRCF discussion document

The four government regulators with a remit concerning data and algorithms are:

- CMA[3], the Competition and Markets Authority
- FCA[4], the Financial Conduct Authority
- ICO[5], The Information Commissioners Office
- Ofcom[6]

These regulators have an influential role in shaping the algorithmic processing landscape to benefit individuals, consumers, businesses, and society more broadly. The National Data Strategy[7] committed these regulators as members of the Digital Regulation Cooperation Forum (DRCF) to discuss what role, if any, they should play in regulating algorithmic processing of data in the industries that they regulate. The DRCF discussion document on auditing algorithms considers what role regulators might have around the auditing of algorithmic processes.

The document outlines the following set of possible roles for regulators, couched in terms of hypotheses for discussion in their document:

---

[1] https://www.gov.uk/government/publications/findings-from-the-drcf-algorithmic-processing-workstream-spring-2022/auditing-algorithms-the-existing-landscape-role-of-regulators-and-future-outlook

[2] https://www.gov.uk/government/publications/findings-from-the-drcf-algorithmic-processing-workstream-spring-2022/the-benefits-and-harms-of-algorithms-a-shared-perspective-from-the-four-digital-regulators

[3] https://www.gov.uk/government/organisations/competition-and-markets-authority

[4] https://www.fca.org.uk/

[5] https://ico.org.uk/

[6] https://www.ofcom.org.uk/

[7] https://www.gov.uk/guidance/national-data-strategy

1. Clarifying how external audit could support the regulatory process, for example, as a means for those developing and deploying algorithms to demonstrate compliance with regulation, under conditions approved by the regulator.
2. Producing guidance on how third parties should conduct audits and how they should communicate their results to demonstrate compliance with our respective regimes.
3. Assisting standards-setting authorities to convert regulatory requirements into testable criteria for audit.
4. Providing mechanisms through which internal and external auditors, the public and civil society bodies can securely share information with regulators to create an evidence base for emerging harms. Such mechanisms could include a confidential database for voluntary information sharing with regulators.
5. Accrediting organisations to carry out audits, and in some cases these organisations may certify that systems are being used in an appropriate way (for example, through a bias audit) in order to demonstrate compliance with the law to a regulator.
6. Expanding the use of regulatory sandboxes (where a regulator has power to do so) to test algorithmic systems in a controlled environment.

Further details from the document covering the potential benefits and drawbacks of these hypotheses are included in Section 3.

2   DCRF request for feedback

DCRF regulators are asking for feedback on their discussion document covering these questions:

- What are the advantages and disadvantages of each of these regulatory roles?
- Which of these regulatory roles would you prefer the DRCF tested and explored further?
- Are there any other actions that the DRCF should consider undertaking in the algorithmic auditing space?

3   Regulatory roles, potential benefits and potential drawbacks

This section includes further details of the possible roles for regulators in the DCRF, and the possible benefits and drawback of those roles.

Hypothesis 1: There may be a role for some regulators to clarify how external audit could support the regulatory process, for example, as a means for those developing and deploying algorithms to demonstrate compliance with regulation, under conditions approved by the regulator.

Potential benefits: Organisations gain greater certainty and clarity over how to demonstrate compliance with regulations, and greater competition in the audit market is stimulated by higher demand from those organisations.

Potential drawbacks: May reduce firms' flexibility to devise and adopt innovative approaches to audit. Further, regulators cannot always determine compliance (for example, where this is left to the courts). Thus, guidance can only make parties more likely to comply with the law.

Hypothesis 2: There may be a role for some regulators in producing guidance on how third parties should conduct audits and how they should communicate their results to demonstrate compliance with our respective regimes.

Potential benefits: Guidance that helps third parties understand what types of audit are more likely to be appropriate for demonstrating compliance could also address the requirements of multiple regimes, saving costs for audited organisations. Such guidance could also lower the barrier to entry to the algorithm auditing market by creating a level playing field.

Potential drawbacks: Regulators need flexibility to be able to adapt guidance on types of auditing that are deemed 'sufficient', to adapt to the emergence of new harmful practices as the use of algorithms evolves. In addition, guidance may be too high level and therefore risk being misinterpreted, without sufficiently demonstrative examples.

Hypothesis 3: There may be a role for some regulators in assisting standards-setting authorities to convert regulatory requirements into testable criteria for audit.

Potential benefits: Third-party auditors, whether from industry, academia, or civil society, understand how they can support regulatory compliance. Creating testable criteria also lowers barriers to entry to auditing companies.

Potential drawbacks: It may not be possible or appropriate to reduce some regulatory requirements to testable criteria.

Hypothesis 4: Some regulators may have a role to provide mechanisms through which internal and external auditors, the public and civil society bodies can securely share information with regulators to create an evidence base for emerging harms. Such mechanisms could include a confidential database for voluntary information sharing with regulators.

Potential benefits: Such mechanisms could form an important complement to formal regulation in terms of oversight of algorithms and their impacts on individuals and society. When appropriate, the information gathered by regulators could lead to the launching of more formal investigations or other actions. Regulators could also share insights from audits to the benefit of sectors understanding how algorithms can create harms.

Potential drawbacks: Information may be poor quality or opaque, thus reducing the insights that may be gathered from it.

Hypothesis 5: There may be a role for some regulators in accrediting organisations to carry out audits, and in some cases these organisations may certify that systems are being used in an appropriate way (for example, through a bias audit) in order to demonstrate compliance with the law to a regulator.

Potential benefits: Accreditation of auditors reduces the need for regulatory audits and the associated costs to organisations. Greater numbers of accredited auditors can improve the trust and use of algorithmic systems.

Potential drawbacks: Accreditation of auditors without attendant requirements about how transparent audits need to be, to appropriate parties or the public, risks undermining accountability for the impacts of the algorithmic system used.

Hypothesis 6: For some regulators there may be a further role to play in expanding the use of regulatory sandboxes (where a regulator has power to do so) to test algorithmic systems in a controlled environment.

Potential benefits: Where regulatory sandboxes are joined up, organisations developing and deploying algorithmic systems can test their systems and understand whether they align with regulatory requirements before they are deployed. This saves them time and limits costs of regulation in the longer term.

Potential drawbacks: If regulatory sandboxes are not joined up, organisations may have to approach multiple regulators to test their systems' compliance.

Who we are

BCS is the UK's Chartered Institute for Information Technology. The purpose of BCS as defined by its Royal Charter is to promote and advance the education and practice of computing for the benefit of the public.

We bring together industry, academics, practitioners and government to share knowledge, promote new thinking, inform the design of new curricula, shape public policy and inform the public.

As the professional membership and accreditation body for IT, we serve over 60,000 members including practitioners, businesses, academics and students, in the UK and internationally.

We also accredit the computing degree courses in over ninety universities around the UK. As a leading information technology qualification body, we offer a range of widely recognised professional and end-user qualifications.