Competition and Markets Authority, Open Consultation:

Algorithms, Competition and Consumer Harm: Call for Information[1]

Prepared on behalf of the **UK Computing Research Committee** by

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We are happy for follow-up contacts and nothing here is confidential.

The UK CRC is an Expert Panel of all three UK Professional Bodies in Computing: the British Computer Society (BCS), the Institution of Engineering and Technology (IET), and the Council of Professors and Heads of Computing (CPHC). It was formed in November 2000 as a policy committee for computing research in the UK. Members of UKCRC are leading computing researchers who each have an established international reputation in computing. Our response thus covers UK research in computing, which is internationally strong and vigorous, and a major national asset. This response has been prepared after a widespread consultation amongst the membership of UKCRC and, as such, is an independent response on behalf of UKCRC and does not necessarily reflect the official opinion or position of the BCS or the IET.

Section 2 of the Algorithms Paper

1. Are the potential harms set out in the review paper the right ones to focus on for our algorithms programme? Are there others that we have not covered that deserve attention?

    [1.1] While we recognize the focus of this work is on "economic harms that could be addressed by enforcement of competition and consumer law, or via new powers of the DMU" we would stress the need to consider the physical harms that may be a side-effect of many of the concerns raised in this very good report.   While the inability to access low-cost services via an on-line portal has clear economic consequences, the integration of cyber-physical systems may also prevent certain communities, for instance, from accessing sources of help and advice that might have been filtered by information providers.   We would strongly urge a joined-up approach between any regulatory agency focusing on economic harm and the wider work of DCMS on digital harm and on the risks derived, for instance, from IoT devices where other forms of regulatory market intervention have been proposed.

    [1.2] Your section 2.2 touches on some of these 'overlapping' issues and identifies a subset of the regulatory agencies but does not connect to the wider DCMS initiatives.   We would argue that the CMA explicitly recommend that DCMS consider a framework for ensuring that these agencies and bodies work together in a coherent manner.   Many of the ideas in this report have not be considered to the same level of detail as has been done here.

[1.3] One area that could be considered in greater depth is the use of "single sign on" approaches and the exchange of data between apparently unrelated sites that would compound the harms mentioned here. These exchanges and horizontal relationships reinforce oligopolistic practices that extend across markets in a manner that would not have been possible without data and algorithmic interdependencies.

2. Do you agree with how we have described each harm, and are there other examples that demonstrate them in addition to the examples we have included?

[2.1] As stated in [1.1] this is an excellent report bringing together insights into technical innovation as well as the wider impacts on individuals across society. Arguably the harms might be extended to include digital exclusion – where market access is denied to elements of society either because of limited access to the underlying infrastructure or where, for instance, through other forms of harm a credit or other rating denies individuals market access. In this latter case, we would argue that there should be a form of appeal where consumers can ask for the grounds on which they were denied access to a service. This could be seen as a special case of some of the later recommendations in this report.

3. How likely and impactful are the identified harms now, and how might they evolve in the next few years?

[3.1] This report does an excellent job of bringing together existing references and case studies of observed harm. However, some of the case studies are little more than anecdotes and have been refuted by the companies involved. This does not weaken the report but may raise concerns about the evidence base on which to justify particular conclusions.

[3.2] The report might be extended to include a table that summarizes the harms in one column, lists the existing evidence sources in another and gives an indication of the CMA's level of concern for the future threats in a third – as a means of helping the reader assess the landscape of harms addressed here.

4. Are there specific examples that we should investigate further to consider whether they are particularly harmful and potentially breaching consumer or competition law?

[4.1] One small caveat about the harms considered here is that they tend to focus on relatively simple cases within particular jurisdictions. This contrasts strongly with the DCMS proposals for the cyber security regulation of IoT devices where there is care to consider issues that arise when harm may be caused as a result of products manufactured and supplied by companies not based in the UK. This would clearly be the case for many of the case studies references by this report but nothing is said about how to deal with such concerns.

[4.2] Are the CMA content that regulatory intervention should only be needed when differential pricing applied within national borders? What happens under the Northern Ireland protocol or in the Highlands where political and geographical factors strongly influence algorithmic judgements.

Section 3

5. Are there any examples of techniques that we should be aware of or that we should consider beyond those that we've outlined?

[5.1] There are growing number of consumer-facing websites that enable "crowd sourcing" to gather evidence of harms by particular companies, see for example[2]. These are useful when the effects of algorithmic features may only be seen at the margin and yet the cumulative effect may be notices across many dissatisfied consumers.

[5.2] Some of these fora receive financial support from companies that may themselves be accused of digital harm and this is not always transparent.

[5.3] We would welcome trusted mechanisms where groups of consumers can collate their concerns that might then be addressed by the audit mechanisms and other regulatory measures identified in this report.

6. Are there other examples where competition or consumer agencies have interrogated algorithms that we have not included?

[6.1] The answers in paragraph [1.1] of our response referenced a wide range of initiatives and consultations dealing with wider aspects of digital harm but also of the security and safety implications behind the growth in IoT devices.

[6.2] These reports have proposed regulatory and market intervention, but none have taken the sustained approach to algorithmic harms seen in this report. We would encourage the CMA to ensure that the groups within DCMS have access to this report, which is firmly based on existing research.

Section 4

7. Is the role of regulators in addressing the harms we set out in the paper feasible, effective and proportionate?

[7.1]. Yes, the approach outlined seems feasible (with caveats), effective and proportionate.

[7.2] However, the harms outlined in this report are likely to evolve over time and as new forms of market manipulation/algorithmic trading develop.

[7.3] The UK Computing Science research community is well-placed to support the CMA in developing automated techniques to identify many of the harms identified in this consultation. While we possess the necessary technical skills, going well beyond those mentioned here, we lack the economic, behavioral and regulatory insights presented by the CMA.

[7.4] We would welcome a sustained dialogue between the CMA and the public funding bodies (EPSRC/UKRI) to develop a roadmap in assisting any future regulator to detect and mitigate future harms, especially from algorithms which we may inadvertently have helped to develop.

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[2] https://forums.moneysavingexpert.com/?_ga=2.69334224.1991697419.1612457376-871288397.1599919355

8. Are there other ideas or approaches that we should consider as part of our role?

[8.1] This is addressed within our answer to Question 7.