Protecting Citizens Online (PCO)

12 November 2019
Introduction from UKRI

John G Baird
Head of Digital Economy at EPSRC - UKRI
Housekeeping

- There are no fire alarm tests planned
- Refreshments are in the Fleet Room
- Bathrooms are in the basement
- You are welcome to take photos of the slides, but please do not take photos of other delegates or speakers/panel members

WiFi

Username: TLS-EVENTS
Password: EnterEvents
# Agenda

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:30</td>
<td>Arrival, registration, refreshments</td>
</tr>
<tr>
<td>11:00-11:10</td>
<td>Welcome, agenda and aims of the day</td>
</tr>
<tr>
<td>11:10-11:30</td>
<td>How can research help address policy drivers from the Online Harms White Paper?</td>
</tr>
<tr>
<td>11:30-11:50</td>
<td>Scope and concept of the Protecting Citizens Online programme</td>
</tr>
<tr>
<td>11:50-12:30</td>
<td>Panel discussion</td>
</tr>
<tr>
<td>12:30-13:00</td>
<td>Open forum</td>
</tr>
<tr>
<td>13:00-14:00</td>
<td>Lunch</td>
</tr>
<tr>
<td>14:00-15:00</td>
<td>UKRI question and answer session</td>
</tr>
<tr>
<td>15:00</td>
<td>Close</td>
</tr>
</tbody>
</table>
Aims of the day

• To share the context, importance and UKRI’s vision for the PCO programme

• To bring research communities and industrial, government and third sector stakeholders together to foster new collaborations and relationships

• To explain how the PCO programme will be delivered, timelines and specific requirements of the funding
How can research help address policy drivers from the Online Harms White Paper?

Professor Tom Rodden
Chief Scientific Adviser for the UK Government’s Department for Digital, Culture, Media and Sport
Protecting the on-line citizen
The UK government wishes to promote an open internet that enables innovation and is safe and secure for its citizen.

There is a growing need to consider the issues of safety of its citizen online:

- Concerns over the protection of people from on-line harms.
- Concerns over online security and how this is manifest including disinformation.
- Concerns over the protecting the privacy of our citizen in a way that still allows protection.

This is both a policy and a technical challenge needing close connection between technical developments and policy construction.
Handling on-line harms

- On line harms white published jointly by DCMS and Home Office
  - Consultation responses been analyzed and understood
  - Government response under development

- Addressing the issues around on-line harms requires research
  - White paper signals need for new research and a research capacity in any regulator

- Shaping a research agenda
  - What are the key challenges?
  - What research is required?
  - Who undertakes the research and how?
Framework to prioritise research

● The Policy Dilemma

“What kind of framework could we use to prioritise research given that we are unlikely to have a sufficiently robust body of data to be able to analyse harms in the short to medium term (e.g. impact of harm, ease of tackling harm, availability of research techniques). “

● Key Research questions

○ How do we better understand on-line harms
○ What is the interdisciplinary community of researchers needed
○ What are the key methods and techniques to address on-line harms
○ What are the timescales involved
Tackling the spread of on-line harms

● The Policy Dilemma

“How should we prioritise the tackling of different types of harms?
How do we distinguish between online and offline harms?
What are the best ways to tackle different types of harms? “

● Key Research questions

○ Can we demonstrate a causal link between online activity and harm?
○ What is it about the nature of online platforms that facilitates the spread, or the targeting of harms?
○ How do we identify online versus offline drivers of harms?
○ What are the overlaps in terms of the spread between different types of harms?
○ How might this change over time?
Monitoring a “duty of care”

● The Policy Dilemma

“What kind of information would a regulator need in order to be able to enforce a duty of care? How big is the Burden on organisations to provide large volumes of data, and the ability of the regulator to meaningfully process it? “

● Key Research questions

○ What information needs collected and how should it be collected?
○ What are the appropriate tools of collection?
○ What are the critical pieces of information and how should they be collected?
○ How can this be done proportionally for small organisations?
Handling sensitive data

● The Policy Dilemma

“It may be challenging to get firms to provide sensitive data. How can we overcome this and provide the right incentives?
Outside the very largest platforms, companies lack the datasets needed to train machine learning systems to recognise different types of harm. However obtaining and providing the right levels of access to these sensitive datasets is problematic. How do we overcome this? Are Privacy Enhancing Technologies a solution? “

● Key Research questions

○ How do we collect and potentially share sensitive data?
○ What are the practical problems of privacy?
○ What are the key stakeholders and how might these be supported?
Freedom of expression

● The Policy Dilemma

“.. platforms could deliver duty of care by over removing .. organisations may effectively exclude parts of the platform (e.g, using end to end encryption ..will might be more likely to adopt an "ask for forgiveness not permission" approach. What are the implications of this for the design of enforcement mechanisms? “

● Key Research questions

○ How do we balance between expression and harm?
○ How might we design technologies that allow freedom but also can support a duty of care?
○ How do we protect the privacy in a balanced way?
Innovation in on-line harms

● The Policy Dilemma

“.. Clarity is needed around the requirements of customers in the market for technical safety, and how big the potential market is to stimulate further investment? ..How international is the market? And what role can the UK play? Are there any first mover advantages for UK firms? “

● Key Research questions

○ What do users, organisation and regulators need to protect the online citizen?
○ What novel techniques and tools can be developed in this domain?
○ How would these be developed and deployed?
○ What are the target market and need for tools?
Protection from harm

● The Policy Dilemma

“how can we can make it harder to act illegally without undermining the significant positive elements (economic, societal) that the online environment brings…and what are the boundaries where illegality means nasty but legal ”

● Key Research challenges

○ How do we find and remove Terrorist Content and CSE/A material as quickly as possible?

○ How do we make it harder for this material to be generated and spread?

○ How do we best protect against economic crime?

○ How can technology be part of the solution rather than the problem?
Protecting the online citizen

- There is a growing policy and regulatory response to the problems of “on-line” harms
- We need to understand a range of new and emerging phenomena and how to respond to these.
- We need to link research closely to policy and governance
- We need a programme of research
  - Understand on-line harms, privacy and security
  - Design of appropriate responses
  - Balance between the policy objective and the art of the possible
- Need to create a research community to address the research challenges and link technology and policy
- Need to deliver the research into policy departments in government who will be creating regulation over the next few years.
Scope and Concept of the Protecting Citizens Online (PCO) Programme

Dr John G Baird
Head of Digital Economy
EPSRC – UKRI
What are we going to cover?

• Scope and concept of the Protecting Citizens Online programme

• What funding will be available

• Timeline
Scope and Concept of the Protecting Citizens Online (PCO) Programme

• Aims to establish and build a world leading, focal point of coherent UK critical mass of inter/multidisciplinary research activity focused on the mission of reducing online harms.

• It will draw on diverse approaches from across disciplines for active engagement with the PCO agenda and enable engagement with key stakeholders including wider academia regulators, policy makers, industry, businesses, Non-Governmental Organisations and the public.
The new research to be supported

Underpinning research and technology development from both a social scientific and an ethical perspective, into privacy, trust, and online harms, including elements such as fairness, transparency, robustness, redress, influence and control - as well as autonomy, data “ownership”, business models, user behaviour, paternalism, rival public benefits of various kinds, and risks of excessive central control. Privacy enhancing technologies will form a key part of this.

It will investigate social, legal, human rights and economic elements of online market design and regulation and lead to novel regulatory approaches. These understandings will in turn result in sociotechnical system design.
Privacy Enhancing Technologies (PETs)

Social and adversarial aspects are fundamental issues in making PETS usable and to also help users understand what they can/cannot.

Need to study attacks against PETS in order to understand what are their capabilities and limitations and ensuring the scalability to the large-scale information flows.

Research in a broad range of areas of clear strategic focus to the UK
What funding will be available?

UKRI is investing £18 million through the Strategic Priorities Fund to support two discrete, but interdependent, components:

- First phase: Up to £7m for a Centre of Excellence – to start August 2020
- Second phase: Up to £11m, approximately four investments to complement the activities of the Centre of Excellence. Call will be scoped after the Centre of Excellence has started and projects commence July 2021.

The Centre of Excellence will be the focus of today’s meeting
What funding will be available?

- Cross-UKRI activity – multidisciplinarity is expected
- To be funded through the Strategic Priorities Fund
  - Specific reporting requirements – regular progress reports
  - Fixed start and end dates
  - Fixed financial spending profile – grant extensions will be an exception
Objectives of the PCO Research Centre of Excellence

• Build a coherent multidisciplinary community through activities and pump-prime funding
• Drive culture change around integrating privacy preserving techniques into the academic and industrial software engineering communities
• Work with policymakers, regulators and other stakeholders to build a strong voice for research in government and to align research with regulation
• Coordinate industrial engagement
• Single point of contact for the community and key stakeholders in industry, businesses, government, regulation, policy making and the public
• Capable of undertaking cross-cutting research to complement the activities conducted within the programme
• Develop public engagement and dialogue, including schools & parents
• Central body for programme and community coordination
• Advocate for PCO research
Key features of the Research Centre of Excellence

• Investment of £7m over a three-year period.

• Hosted in an HEI and comprise a multi-disciplinary group of researchers and key stakeholders co-located

• It will focus on Privacy Enhancing Technologies (PETS) and provide a clear single engagement point with enough critical mass to engage with government, industry and citizens.

• In the first six months (August 2020 – December 2020) the centre should convene the relevant stakeholders and communities and coordinate an evidence synthesis deep dive of the current state of play of the area. The results of this will inform the scope of a call for challenge projects which will be launched by UKRI in January 2021.

• Pump prime funds for flexibility – £4m of the total £7m should be distributable funds for pump-priming through open competition
Structure of the programme

Centre of Excellence

- Evidence synthesis
- Provides coordination
- Leads on advocacy and engagement activities
- £7m in total

Second phase research project (£2-3m)

Second phase research project (£2-3m)

Second phase research project (£2-3m)

Second phase research project (£2-3m)

Pump-prime projects (£4m, funded by centre)
Approximate delivery timeline for Centre of Excellence

- Centre of Excellence call launch: January 2020
- Call submission deadline: August 2020
- Panel interviews
- Centre start date
- Scoping activity for Challenge Projects: 2021
Next steps for today

• Panel discussion and Open Forum
• Networking during lunch
• UKRI Q&A after lunch
Panel discussion
Open forum
Lunch
Summary and key points
Thank you