

Addressing Cybersecurity and Cybercrime via a co-Evolutionary approach to reducing human-related risks

Basic Information

EPSRC Human Dimensions of Cyber Security (HDoCS) 2016

£1.1m (funding amount £881k)

April 2017 – February 2020

18 researchers from 7 institutions working in 5 disciplines: Computer Science, Crime Science, Business, Engineering, Behavioural Science

<http://accept.cyber.kent.ac.uk/>

Consortium



Stakeholders Group



Advisory Board



Overall Aim

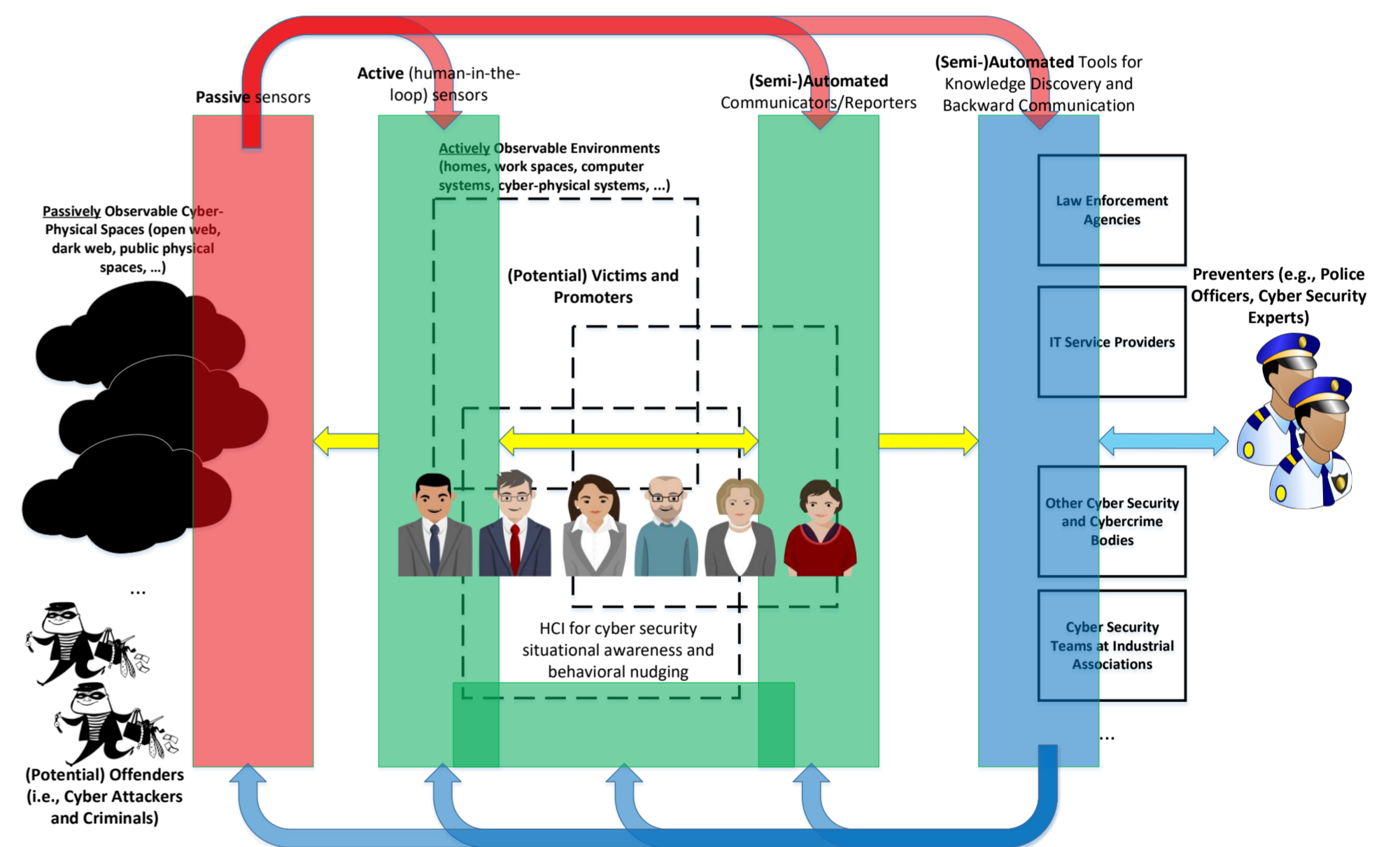
To develop a socio-technical framework and associated software tools that can help to:

- analyse the technological/behavioural co-evolution of cybersecurity/cybercrime ecosystems, and
- influence behaviours of a range of actors to reduce human-related cyber risk in the ecosystems.

Approaches

1. **Theory-informed:** Incorporate theoretical concepts from social, evolutionary and behavioural sciences which provide insights into the co-evolutionary aspect of cybersecurity/cybercrime ecosystems.
2. **Evidence-based:** Draw on extensive real-world data from different sources on behaviours of individuals and organisations within cybersecurity/cybercrime ecosystems.
3. **User-centric:** Develop a framework that can provide practical guidance to system designers on how to engage individual end users and organisations for reducing human-related cyber risks.
4. **Real world-facing:** Assess the effectiveness of the framework through user studies in real-world scenarios.

Socio-Technical Framework



Use Cases

- **Use Case 1: Human-related privacy risks within hybrid transportation networks**
Human-related **privacy** risks related to sharing **geo-location data** in the **cyber-physical** world involving multiple means of transportation
- **Use Case 2: Human-as-a-Security-Sensor (HaaS)**
Feedback-enhanced security event reporting by human users

Work Packages

- **WP1: Socio-Technical Framework**
- **WP2: Design and Development of Software Tools**
- **WP3: Validation through Use Cases**
- **WP4: Project Management & Stakeholder Engagement**

Contact Us

- **Overall Principal Investigator:**
Shujun Li
Kent Interdisciplinary Research Centre in Cyber Security (KirCCS)
School of Computing, University of Kent
Canterbury, Kent, CT2 7NF, UK
Email: S.J.Li@kent.ac.uk