THEME: Cyberspace, Privacy and Data Protection

PROJECT: Breaking barriers to criminal justice communication; a secure information system approach

Lead Supervisor:　　　　Dr Sandra Scott-Hayward

Supervisory Team:　　　　Dr Sandra Scott-Hayward
　　　　　　　　　　　　　　Professor Sakir Sezer
　　　　　　　　　　　　　　Dr Michelle Butler

Primary Location: CSIT

This PhD will combine research on the technological development of secure distributed information systems with efforts by governments to develop a more effective and efficient criminal justice system.

There has been a growing diversification of providers working with offenders in the criminal justice system. However, contracts are often awarded to providers without information sharing protocols being agreed or established. Each provider tends to have their own secure information system which is not accessible to others or designed to share information. These barriers to information-sharing have hindered efforts to reduce reoffending and improve outcomes, sometimes placing individuals lives at risk as information about risks, needs and suicidal intention are not shared with relevant professionals. Frustrations are also evident among offenders, victims and their families as they must re-tell their stories multiple times with different providers, increasing the likelihood of disenfranchisement, disengagement and their needs not being met in a timely fashion.

This project will seek to pilot the development of a distributed information system which can overcome these barriers to information-sharing, while seeking to ensure data is held and shared securely and in a manner which addresses the privacy concerns of both the individuals involved and the respective providers.

This PhD will consist of 4 key stages:

- Stage 1: Interviews will be conducted with relevant criminal justice stakeholders to identify the main obstacles to effective information-sharing, as well as the cybersecurity, privacy and system design issues involved;
- Stage 2: The findings emerging from stage 1 will be used to inform the development of a new distributed system which will facilitate the sharing of information between providers in a quick, efficient and timely manner, while nonetheless ensuring data is shared securely and respecting privacy concerns;
- Stage 3: The developed system will be piloted with two different providers. Interviews conducted to obtain their feedback regarding the usability and appropriateness of this system, as well as its ability to enhance efforts to reduce re-offending and improve criminal justice outcomes.
- Stage 4: Based on the feedback from stage 3, the system will be amended to

address any issues that may emerge during stage 3.

It is proposed to draw on Dr Butler's existing links with criminal justice agencies to recruit participants to take part in the proposed interviews, as well as recruit two different providers working within the criminal justice sector to pilot the proposed software.

Primary Academic Discipline: Network Security