Mapping booklet

Mapping cyber-enabled roles to CyBOK knowledge areas through cooperative inquiry

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Introduction

Mapping cyber-enabled roles to CyBOK knowledge areas through cooperative inquiry.

The Cyber Security Body of Knowledge (CyBOK) is a valuable resource that aims to structure established knowledge related to Cyber Security. In this funded Outreach, Adoption, and Awareness project, we aimed to map cyber-enabled roles to the CyBOK using participatory methods.

This booklet presents summarised findings from a funded Outreach, Adoption, and Awareness project for version 1.1 of the CyBOK. The project was titled 'Mapping cyber-enabled roles to CyBOK knowledge areas through cooperative inquiry' and involved the delivery of mapping workshops and the development of resources based on the findings of these workshops.

Cyber-enabled roles in the context of this booklet means anyone who uses digital technologies in their work. The term is derived from the 2022 Cyber Skills in the UK Labour Market government report. Though we did adopt a slightly broader definition in this project to avoid discouraging anyone from participating.

A mapping workshop was held at the University of Central Lancashire in Preston. This workshop was inspired by participatory arts-based research. In the workshop, participants formed groups based on their roles, and then mapped these joint roles to CyBOK knowledge areas.
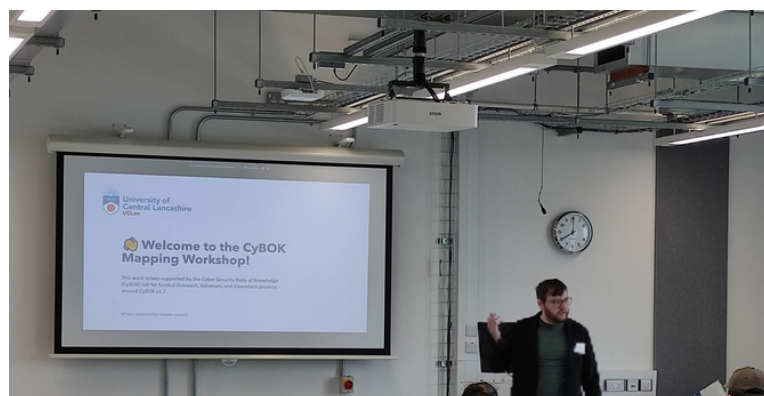
19 cyber-enabled practitioners attended the mapping workshop.

#19

The mapping workshop was held at the Engineering Innovation Centre at the University of Central Lancashire's Preston campus.

At the workshop, participants first mapped their own understanding of cyber security, and then mapped their roles to the CyBOK areas.
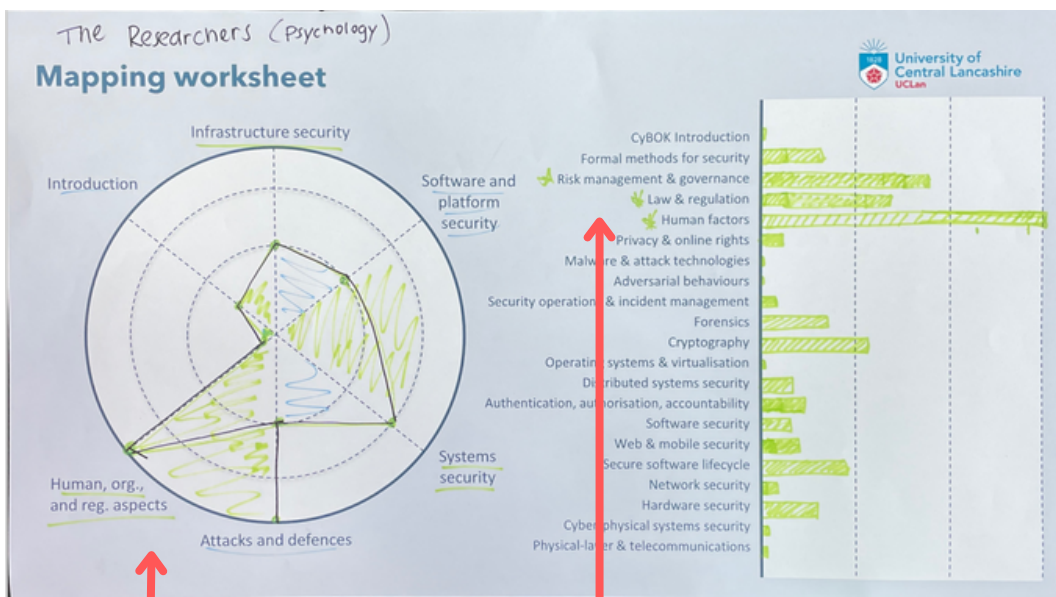
Mapping cyber security

Before participants mapped their roles to CyBOK knowledge areas (see Mapping to CyBOK) they formed groups based on their roles and responsibilities. They then worked to map their own understanding of cyber security. These initial mappings are shown below.
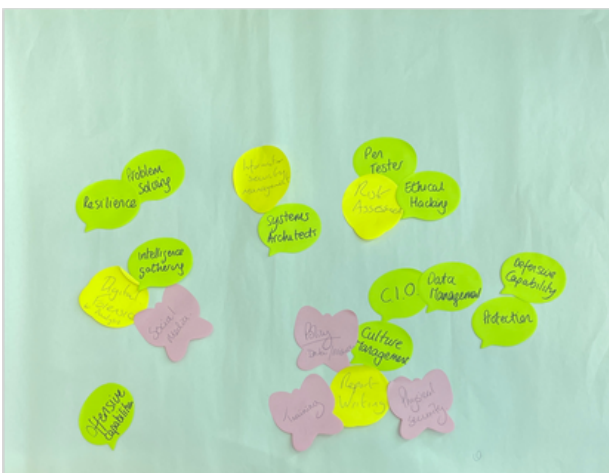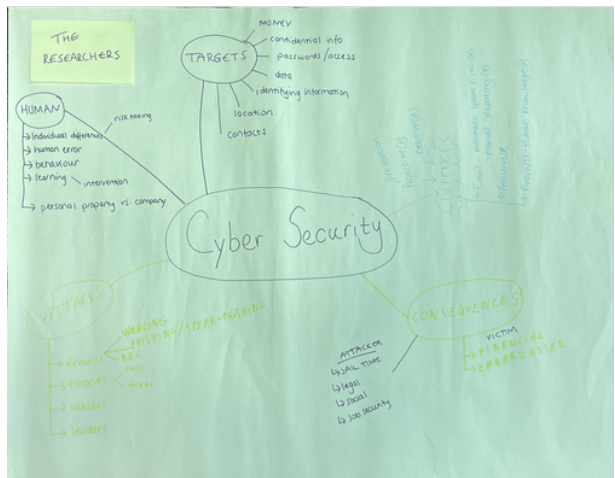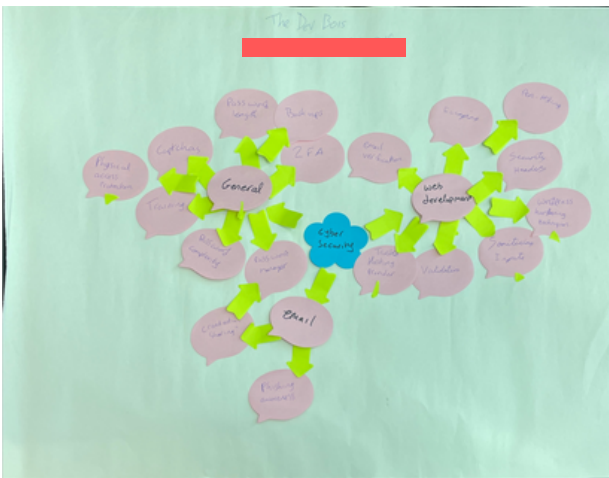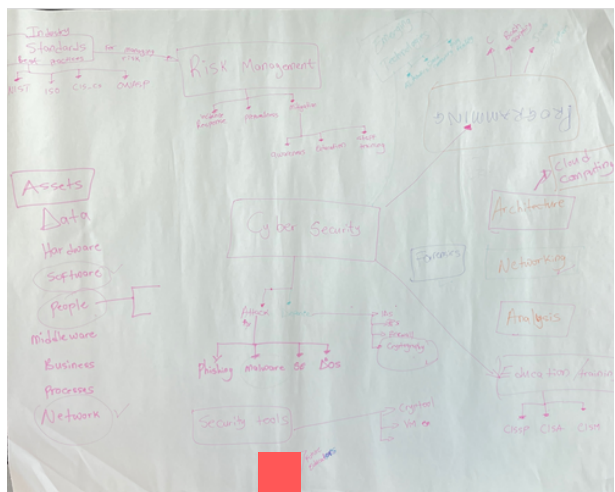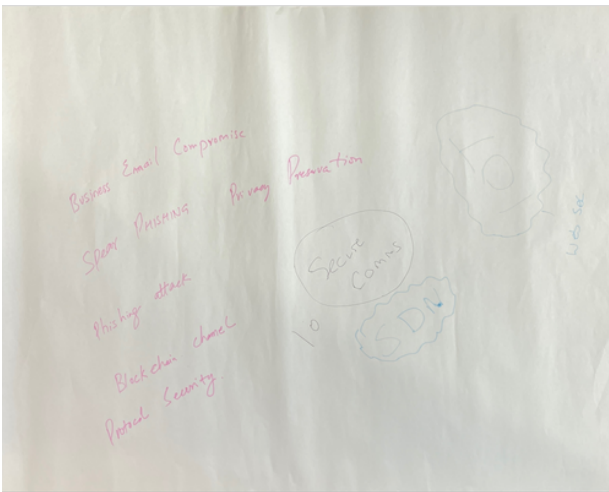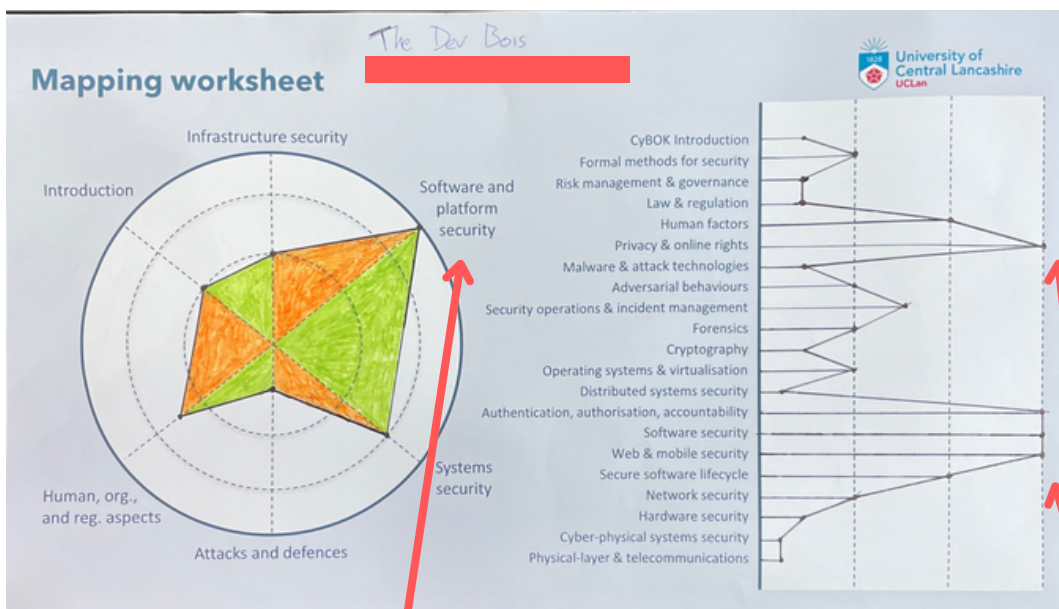
Mapping to CyBOK

Group #1: Researchers (Psychology).

This group of researchers broadly interested in psychology considered human, organisational, and regulatory aspects to be highly significant, specifically: risk management & governance, law & regulation, and human factors.
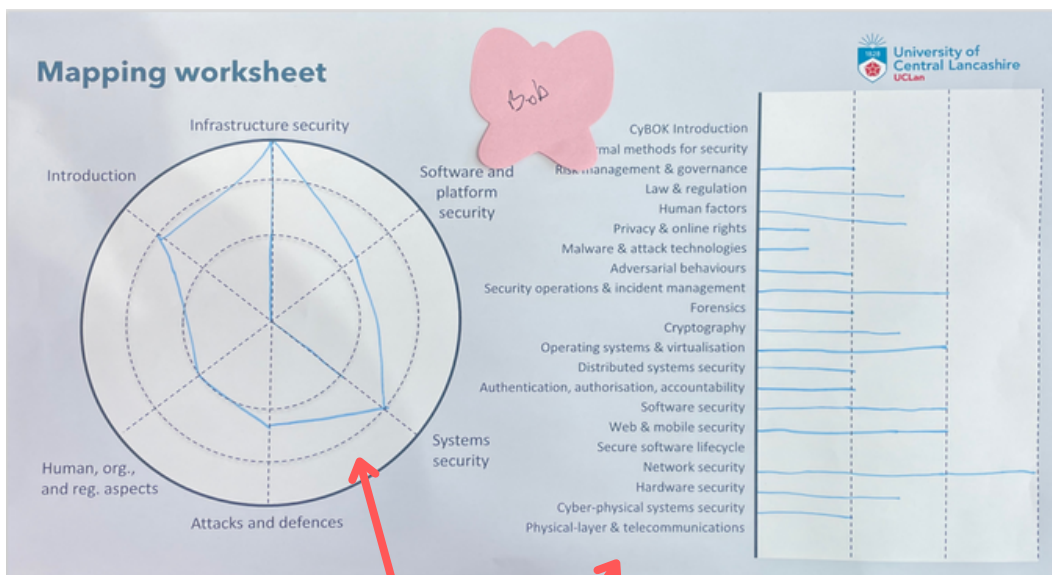
Group #2: Software developers.

This group of software developers emphasised the importance of the software and platform security knowledge group. The knowledge areas authentication, authorisation, & accountability and privacy & online rights were also highlighted as being very important to this group.
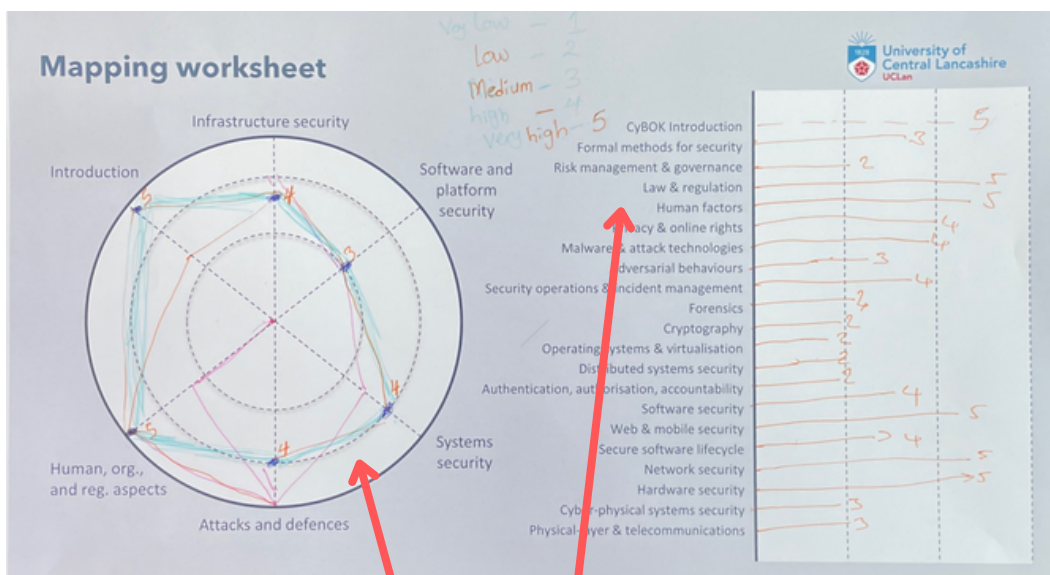
Mapping to CyBOK

Group #3: Educators (with Bob the butterfly).

Mappings to both knowledge groups and areas emphasise the importance of infrastructure and network security, the main subject this group of educators teaches.
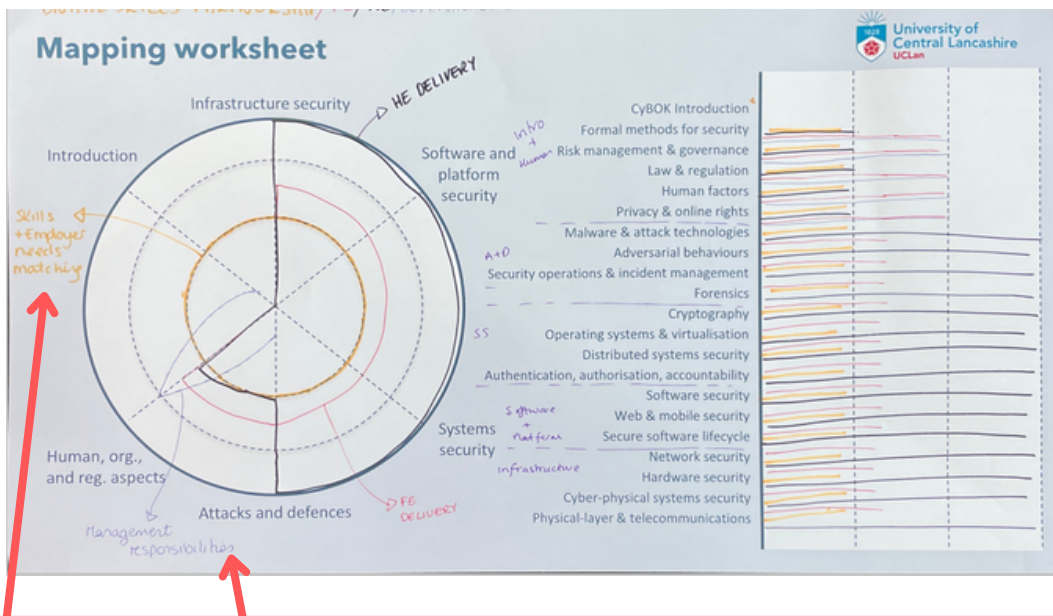
Group #4: Future educators.

Similarly to group #3, this group of educators similarly chose to emphasise the importance of groups and areas that correspond to subject they teach. However, they also highlighted human, organisational, and regulatory aspects and linked this to other responsibilities.

Mapping to CyBOK

Group #5: Education, partnerships, and management.

This group highlighted the importance of subject matter they teach and noted that a broad knowledge of all subjects is required to build partnerships with different groups. Additionally, the importance of human, org. and reg. aspects for management was highlighted.

Group #6: Industry training and engagement.
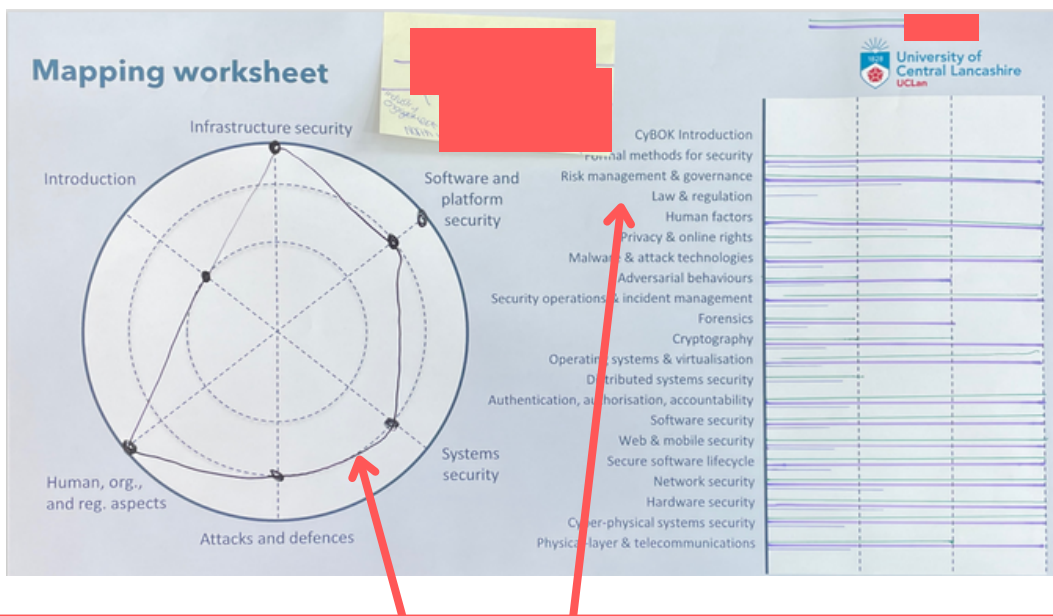
This group highlighted the importance of human, org. and reg. aspects alongside infrastructure security. Software & platform security, systems security, and attacks & defences were emphasised slightly less.

Feedback

Most of the participating cyber-enabled practitioners provided feedback on the workshop and the CyBOK itself. Overall, they found the CyBOK to be relevant to their roles and both understandable and accessible. Similarly, they found the workshop to be helpful in that it raised their awareness of the CyBOK and will help them to adopt it in their future work.

■ Strongly agree ■ Agree ■ Neither agree/disagree ■ Disagree ■ Strongly Disagree

The CyBOK is an understandable and accessible resource.
10
1
0
0
0

The CyBOK contains knowledge relevant to my job role.
5
5
2
0
0

This workshop will help me adopt the CyBOK in my future work.
6
2
4
0
0

This workshop raised my awareness of the CyBOK.
8
3
0
0
0

This workshop was helpful overall.
3
8
2
0
0

0 1 2 3 4 5 6 7 8 9 10

Acknowledgements