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EJD

WP 5 - Training Programme (Training)

LEAD PARTNER - P5 - "Mihai Viteazul" National Intelligence Academy

D5.13 - Fellows' Handbook for Research





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List of abbreviations

ESR - Early Stage Researcher





Introduction

1. Aim of the Handbook

The aim of this handbook is to provide an up-to-date overview of research methodologies coming from different disciplines: digital forensic, cognitive science, intelligence studies and law. The aim is to assist the ESSENTIAL Early Stage Researchers and other students in the field of security science find the most suitable research methodology (ies) for the work they are carrying out. Especially in an interdisciplinary context, such as the one fostered inside the ESSENTIAL project, young researchers may need to opt for a. more than one research method and b. research methods which they had not used before as they are coming from another discipline.

The handbook consists of a collection of both classical sources in the literature on research methodology, as well as contemporary work, which develop particular methodologies. The handbook includes both general-scope works as well as sources that address a particular issue in detail.

The handbook also includes the presentation on research methodologies which different ESSENTIAL supervisors have already provided the students during the project events (e.g. summer schools and skills workshops).

2. Target group

The main target group of this Handbook are the ESSENTIAL Early Stage Researchers, but also any other students from the field of Security Science.

3. Structure

The handbook is structured into five main chapters each devoted to research methodologies in a particular area of science: social sciences, security and intelligence studies, law, cognitive science and cyber security and digital forensics. While, the five chapters might seem, at the beginning, disconnected, they are actually illustrating different sets of methodologies, which ESSENTIAL ESRs need to combine in their work in order to successfully produce interdisciplinary and multidisciplinary research results in the field of security science.

The chapter on Research in Social Sciences addresses both the general topic of how to design social science inquiry and specific methods such as semi-structured interviews (e.g. elite interviews), which some of the ESSENTIAL ESRs





may decide to use in their work (e.g. carrying out semi-structured interviews with members of the intelligence community).

The second chapter dedicated to Research in Security and Intelligence Studies is divided into two parts. The first part mainly readings produced by the US intelligence community, which refer to the theoretical foundations of the intelligence process and intelligence analysis. These readings are in the second part of the chapter complemented with additional text on teaching intelligence studies and studying the profile of intelligence practitioners.

The third part of this Handbook tackles Legal Research Methodologies, while also including some key readings related to human rights and surveillance (e.g. decisions of the European Court of Justice and the European Court of Human Rights). These key texts will help ESRs acquire a better knowledge of the legal framework underpinning security science.

The fourth part of the Handbook addresses Research Methodologies in Cognitive Science and includes a description of relevant research methods such as applied statistics, experimental psychology and computational and mathematical modelling.

The fifth and last part of the Handbook is dedicated to specific research methodologies in the field of Cyber Security and Digital Forensics.





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Useful Resources

For Cognitive Science

- https://cogsci.jhu.edu/research-areas/approaches/
- http://perception.yale.edu/Brian/misc/musings/bjs-suggested-reading.html
- http://libguides.mg.edu.au/c.php?g=674334&p=4749203
- https://www.iitgn.ac.in/iitgn_new/sites/default/files/pdf/Cognitive%20Science.pdf
- http://guides.lib.umich.edu/cogsci





For Intelligence Studies

http://sourcesandmethods.blogspot.com/

For Digital Forensics

- https://www.crime-scene-investigator.net/computer-forensics-digitalforensic-analysis-methodology.html
- https://resources.infosecinstitute.com/category/computerforensics/
- www.forensicmag.com





Conclusions

The handbook provides the ESRs of the ESSENTIAL research program with the necessary resources in order to design a relevant research proposal and to conduct it in scientifically relevant ways. It aims to combine relevant bibliography in social sciences, military and intelligence studies and law in order to offer a complete overview of the necessary tools a person requires in order to complete the ESSENTIAL PhD.

