

# CYBERSECURITY AND DEEPPFAKE TECHNOLOGY

## Challenges and Educational Implications

## Introduction

**Deepfake technology** is becoming increasingly integrated into daily life, beginning from AI generated media to the technology's rising use in cyberattacks. Beyond its creative capabilities, realistic deepfake content has emerged as a significant security threat. **Cybersecurity** plays a central role in the mitigation of deepfakes in protecting individuals and the prevention of deepfake-related security incidents. Nonetheless, current cybersecurity approaches face several challenges in the mitigation and detection of deepfakes.

**By investigating these cybersecurity challenges, this study aims to highlight the need for digital security measures and the importance of education in combating deepfake threats towards establishing a safe online space free from misinformation, disinformation and deepfakes.**



## Research Methodology

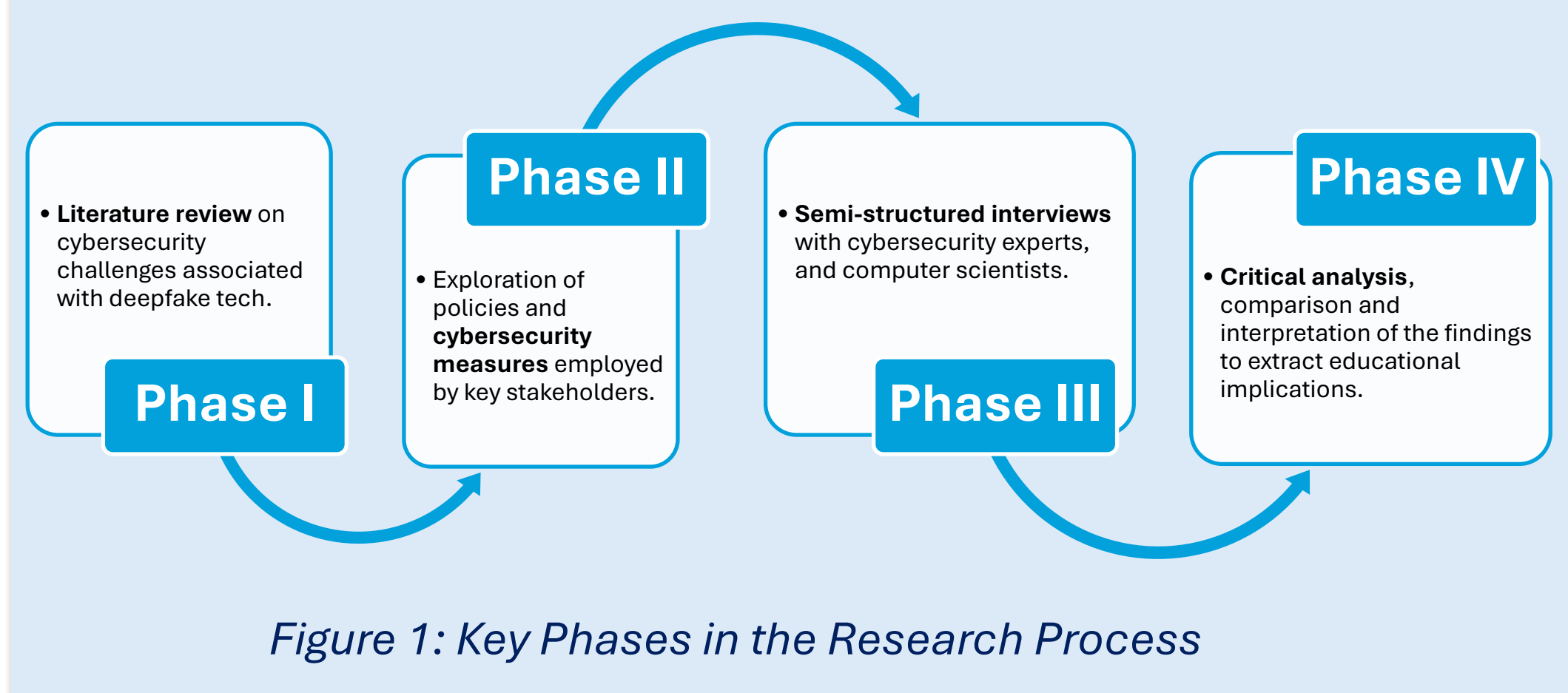
**Literature review:** Explore deepfake technology, resulting cybersecurity challenges, social and educational implications.

**Semi-structured interviews:** Cybersecurity professionals, computer scientists.

**Thematic analysis:** Discover participants' perceptions, behaviours and views on deepfake technology.

**The following research questions will be addressed:**

- What are the most significant cybersecurity threats associated with deepfake technology?
- What measures are currently in place to detect and mitigate deepfake threats?
- What is the role of education in assisting individuals and organisations combat the impact of deepfake technology?



## Research Objectives

- **Systematically review** recent developments in deepfake tech and the challenges they pose for cybersecurity.
- To identify and assess the **cybersecurity policies and measures** employed by prominent stakeholders against deepfake content.

## Company Policies

The study will involve an exploration of the policies and cybersecurity measures against deepfake content employed by key stakeholders such as **LinkedIn, Google, Instagram, BBC, Microsoft, X, and Facebook.**



## Expected Results

- **Initial insights** demonstrate the need for preventive measures against **deepfake threats.**
- Emphasis on **technology-oriented** and **human-centered** preventive measures.

**Research Keywords:**

- Deepfakes, Artificial Intelligence (AI), Generative AI (GenAI), Cybersecurity, Educational implications

