ENGLISH FOR ACADEMIC PURPOSES
PROJECT PART 2
LITERATURE REVIEW

Week 4, Lesson 1

LESSON 1 OBJECTIVE

- Learn the basic structure of literature review
- Understand the steps of the literature review
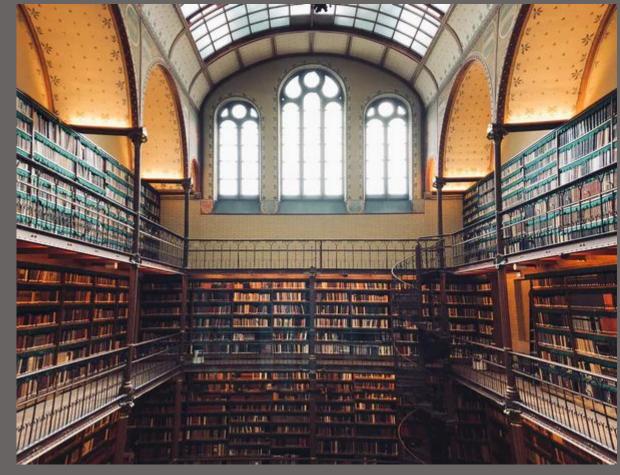
READING

- Do you like reading?

- Is reading important? Why?

- In your opinion, will reading different literature be an important part of your profession? Why?

READING IN RESEARCH

- What is literature review?

- What is the difference between reading in general and reading literature for a review?

- In your opinion, why should you read previously published literature before doing your own research?

A LITERATURE REVIEW

is a descriptive summary of research on a topic that has previously been studied. The purpose of a literature review is to inform readers of the significant knowledge and ideas that have been established on a topic. Its purpose is to compare, contrast and/or connect findings that were identified when reviewing researchers' work. Oftentimes, literature reviews are written to ground a study in a particular context of what is known about a subject in order to establish a foundation for the topic (or question) being researched (Cortland, n.d., para. 1).

PROJECT PART II: LITERATURE REVIEW PRESENTATION

General structure of Literature review presentation

- Introduction

- Body

- Conclusion

FINDING AND SELECTING SOURCES

- Search for relevant literature on your topic
  - Use the right scholarly database
  - Google Scholar
  - PubMed
  - JSTOR
  - ScienceDirect
- Evaluate and select sources
  - Scan the abstract
  - Scan the list of references
  - Pay attention to the citation count on the Google Scholar

WHICH ARTICLE IS MORE POPULAR AND WHY?

PrivateDrop: Practical Privacy-Preserving Authentication for **Apple AirDrop**   [PDF] usenix.org

A Heinrich, M Hollick, T Schneider, M Stute… - 30th {USENIX} Security …, 2021 - usenix.org

Apple's offline file-sharing service **AirDrop** is integrated into more than 1.5 billion end-user devices worldwide. We discovered two design flaws in the underlying protocol that allow attackers to learn the phone numbers and email addresses of both sender and receiver …

☆ ⠀ Cited by 4   Related articles   All 4 versions »

A billion open interfaces for eve and mallory: Mitm, dos, and tracking attacks on ios and macos through **apple** wireless direct link   [PDF] usenix.org

M Stute, S Narain, A Mariotto, A Heinrich… - 28th {USENIX} Security …, 2019 - usenix.org

… The flaws span **AirDrop's** BLE discovery mechanism, AWDL synchronization, UI de- sign, and Wi-Fi … The impact of these find- ings goes beyond **Apple's** ecosystem as the Wi-Fi Alliance … First, we dis- cover security and privacy vulnerabilities in AWDL and **Air**- **Drop** and present …

☆ ⠀ Cited by 25   Related articles   All 8 versions »

Linux Goes **Apple** Picking: Cross-Platform Ad hoc Communication with **Apple** Wireless Direct Link   [PDF] arxiv.org

M Stute, D Kreitschmann, M Hollick - Proceedings of the 24th Annual …, 2018 - dl.acm.org

… ad hoc protocol that **Apple** intro- duced around 2014 and which is the base for applications such as **AirDrop** and AirPlay … aware advertisements (eg, Bluetooth LE), user-aware security measures (eg, **Apple** Auto Unlock), peer-to-peer file transfers (eg **Apple Air- Drop**), and media …

☆ ⠀ Cited by 1   Related articles   All 9 versions

WHILE READING:

Identify themes, debates and gaps

- Take notes

- Find connections between different sources

- Look for:
  - Trends and Patterns
  - Themes
  - Debates and contradictions
  - Influential studies

Heinrich, A., Hollick, M., Schneider, T., Stute, M., & Weinert, C. (2021, June). AirCollect: efficiently recovering hashed phone numbers leaked via Apple AirDrop. In *Proceedings of the 14th ACM Conference on Security and Privacy in Wireless and Mobile Networks* (pp. 371-373).

Heinrich, A., Hollick, M., Schneider, T., Stute, M., & Weinert, C. (2021). PrivateDrop: Practical Privacy-Preserving Authentication for Apple AirDrop. In *30th {USENIX} Security Symposium ({USENIX} Security 21).*

ABSTRACT

Apple's file-sharing service AirDrop leaks phone numbers and email addresses by exchanging vulnerable hash values of the user's own contact identifiers during the authentication handshake with nearby devices. In a paper presented at USENIX Security'21, we theoretically describe two attacks to exploit these vulnerabilities and propose "PrivateDrop" as a privacy-preserving drop-in replacement for Apple's AirDrop protocol based on private set intersection.

In this demo, we show how these vulnerabilities are efficiently exploitable via Wi-Fi and physical proximity to a target. Privacy and security implications include the possibility of conducting advanced spear phishing attacks or deploying multiple "collector" devices in order to build databases that map contact identifiers to specific locations. For our proof-of-concept, we leverage a custom rainbow table construction to reverse SHA-256 hashes of phone numbers in a matter of milliseconds. We discuss the trade-off between success rate and storage requirements of the rainbow table and, after following responsible disclosure with Apple, we publish our proof-of-concept implementation as "AirCollect" on GitHub.

Abstract

Apple's offline file-sharing service AirDrop is integrated into more than 1.5 billion end-user devices worldwide. We discovered two design flaws in the underlying protocol that allow attackers to learn the phone numbers and email addresses of both sender and receiver devices. As a remediation, we study the applicability of private set intersection (PSI) to mutual authentication, which is similar to contact discovery in mobile messengers. We propose a novel optimized PSI-based protocol called *PrivateDrop* that addresses the specific challenges of offline resource-constrained operation and integrates seamlessly into the current AirDrop protocol stack. Using our native PrivateDrop implementation for iOS and macOS, we experimentally demonstrate that PrivateDrop preserves AirDrop's exemplary user experience with an authentication delay well below one second. We responsibly disclosed our findings to Apple and open-sourced our PrivateDrop implementation.

READ TWO ABSTRACTS

- What is the common theme of the papers?

- Who are the authors?

PROJECT PART II MINI LITERATURE REVIEW

- Find at least 5 academic articles about your chosen IT invention

- Provide the reference lists of the articles in APA referencing style (at least 5)

- Describe the research problems and questions of the articles

- Provide a brief description of the methodology of all the articles

- Discuss the article findings

- Literature review design: Power Point presentation

- Read and follow the rubric on the next slide

- Deadline: Sunday Week 4, upload to Moodle

LITERATURE REVIEW PRESENTATION STRUCTURE

- Title with your chosen IT invention and your name

- Outline of your presentation

- Introduction: Hook

- Titles of all your reviewed articles (in APA style)

- What are the research questions of the chosen articles?

- What methodology was used?

- What are the main findings of the articles?

- Conclusion: What did you learn about your chosen IT invention?

- Find a gap in literature: Your own opinion based on the review what should be studied more/further about the chosen IT invention?

Criteria	Score
The presentation begins with an introduction given according to the Coursera video recommendations and includes a hook, a context, an outline	10
Project part II contains: the research problems/questions, methodology, and findings of 5(B2level) or 3 (B1 level) different academic articles	30
The in-text citations and references of the articles are in the **correct APA style**	10
The presentation looks attractive, well-structured, with relevant supporting **images with sources**, **WITHOUT too much text.**	10
The presentation is delivered in an **interesting and enjoyable manner without reading** the text.	10
Student uses a **clear voice and correct, precise pronunciation of terms** so that all audience members can hear presentation.	10
The presenter makes flexible and accurate use of a wide range of simple and more complex grammatical structures of the level and vocabulary	10
Overall appearance (text, font, color, images, no conflicting backgrounds, no spelling mistakes) and organization (organized well, correct sequence of information, effective use of space) are appropriate. All the sections are with the headings	5
The presentation is 4-5 min	5
Total score	100
Does the homework have all the requirements? (1-8)	
Includes all of the items given above and they are done in a superior manner	A (90 -100)
Includes most of the items given above and they are done very well	B (75 – 89)
Includes most of the items given above and they are done in a satisfactory manner	C (60 – 74)
Doesn't include many of the items given above and they are done below a satisfactory level	D (50 –59)
Many items given above are missing or done poorly	F (49 and below)

PRACTICE

Practise identifying the research problem/question, methodology, and findings of research articles.

REFERENCES

How to write a literature review. How to Write a Literature Review | Grammarly Blog. (2020, December 9). https://www.grammarly.com/blog/how-to-write-a-literature-review/?gclid=CjwKCAjw1JeJBhB9EiwAV612 y2hegGl3EqiVQvGajaG2vO9_rsqDcZK2UwENXuNH_LNz4wGdXNcxuhoCEkkQAvD_BwE&gclsrc=aw.d s.

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Small-scale literature review assignment. (n.d.). https://web.cortland.edu/rombachk/portfolio/doc/Small-scale%20literature%20review.htm.

YouTube. (2020, April 3). *How to write a literature Review: 3 Minute step-by-step guide | scribbr* 🎓. YouTube. https://www.youtube.com/watch?v=zIYC6zG265E.