"Think secure from the beginning" – Assal and Chiasson

In "A Survey with Software Developers" [1], the authors pursue to understand the human behaviours and motivations which surround factors of software security. The authors specified a series of questions targeted towards software developers through an online survey. The research examined responses to further support the professional development of programmers, both in theory and practice. This aligns well with the research goals of "Why Do Programmers Do What They Do?", as it aims to form a theory on the influences and effects of decisions surrounding technical work.

The results outlined the following common groups:

1. **Work Motivation:** Developers did not lack motivation in their job. They performed based on self-determination.
2. **Understanding of software security:** Developers had a sound understanding of software security. They grasped the importance of securing technical work and the discussed various methods of doing so and specifying at what stages in the project life-cycle they should implement these based on "best practices".
3. **Security Issues:** Majority of the participants believed their software could be compromised, despite being comfortable with the approaches to protecting the software. The majority has also experienced a security issue, whether that be a breach, or vulnerable code.

From these common groups the overarching theme displayed was that the developers were not purposefully ignorant to maintaining security practices, the majority were proactive and willing to learn. However, it was the importance of functionality and lack of ongoing support from organisations which made working towards a more secure software challenging.

This paper was valuable to read as there are strong comparisons between the research topic developed in this and the subject of the 489 topic. The methodologies are different, however, the findings of this display a programmers personal perspective rather than a theorised view. It is a direct comparison to our project, and we can further outline questions directed to the future work stated in the article's conclusion; "to explore potential relationships between motivations,

deterrents and strategies for software security" and "investigate security procedures and attitudes in companies that have experienced security breaches and compare it to others who have not".

Works Cited

[1] H. Assal and S. Chaisson, ""Think secure from the beginning": A Survey with Software Developers," in CHI Conference on Human Factors in Computing Systems Proceedings, Glasgow, Scotland Uk, 2019.