# Article information:

LookUnlock: Using Spatial-Targets for User-Authentication on HMDs  
<https://dl.acm.org/doi/fullHtml/10.1145/3290607.3312959>

# Article summary:

1. LookUnlock is a graphical authentication technique for HMDs that uses passwords composed of spatial and virtual targets.

2. LookUnlock uses head-gaze tracking and spatial mapping to enter passwords, with three variants: Spatial Passwords, Virtual Passwords, and Hybrid Passwords.

3. A user study was conducted to evaluate the protection against shoulder-surfing attacks, which showed that Virtual Passwords were the most secure.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article provides an interesting concept for authentication on HMDs using spatial and virtual targets as passwords. The authors provide a proof-of-concept implementation and security evaluation to demonstrate the effectiveness of this technique.

The article is generally well written and provides a clear overview of the concept, its design considerations, implementation details, and security evaluation results. The authors also provide a detailed description of their user study methodology and results, which adds credibility to their claims about the effectiveness of LookUnlock in preventing shoulder surfing attacks.

However, there are some potential biases in the article that should be noted. For example, the authors do not discuss any potential risks associated with using LookUnlock or any possible counterarguments to their claims about its effectiveness in preventing shoulder surfing attacks. Additionally, they do not present both sides equally when discussing existing work for authentication on HMDs; instead they focus mainly on biometric approaches without providing much detail about other methods such as out-of-band authentication or wearable computing devices.

In conclusion, while this article provides an interesting concept for authentication on HMDs using spatial and virtual targets as passwords, it does have some potential biases that should be noted when evaluating its trustworthiness and reliability.

# Topics for further research:

* Shoulder surfing attack prevention
* Out-of-band authentication
* Wearable computing devices
* Biometric authentication
* HMD authentication methods
* Security evaluation of authentication techniques

# Report location:

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