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Article Review #2

[The cybersecurity of fairy tales](#)

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Introduction

Fairytales are a type of media that use archetypes and motifs that can be found in any society, in any part of the world. They're simple stories that feature characters making a variety of mistakes and decisions, which is why they're used to educate children on what to and what not to do. In the context of cybersecurity, the author has made the connection that the simplicity of these fairytale stories and the "cyberthreats" that they depict should be considered when thinking about how to educate non-cybersecurity professionals on cyberthreats and online privacy. The author's philosophy of using fairytale concepts as allegories to explain cybersecurity is guided by the quote, "fairy tales represent cybersecurity archetypes in their simplest and barest form, and afford us (some of) the best clues to the understanding of the processes going on in the collective psyche of the cyberworld" (Viganò, 2024).

Review

The paper reviews 13 different fairytales, and creates a table of cybersecurity notions defined by the NIST (National Institute of Standards and Technology) glossary, with terms like access control, cipher, replay attack, and more. By analyzing the plot of each of the stories and getting qualitative data from them, they can associate characters' actions with different cybersecurity concepts. The author notes that they have used films in the past to explain cybersecurity to people, making an experiment where people answered cybersecurity questions before and after watching a film trying to explain the concept. According to Viganò, these studies were effective, stating:

The answers showed a significant improvement in the participants' understanding for most notions, whereas for a few notions (in particular, anonymity and steganography) the film clips alone were not always enough but required additionally the explanations provided by an expert mediator who is able to relate the clips and the notions, and thus support the understanding.

Viganò calls *Ali Baba and the 40 Thieves* a, "fairy-tale goldmine for cybersecurity"; when Morgiana tricks the thieves by marking all of the houses in the neighborhood with a similar mark used to identify their target, the author compares this to the concept of anonymity and an anonymity set. The article is filled with comparisons and explanations like these showing how we can learn and teach complex cybersecurity concepts in an extremely clear manner. This is a vital concept in social cybersecurity, as parsimony is a major principle of science, and by creating these simple, human centered explanations that anyone of any age and any nationality can understand, we can increase cybersecurity globally. This also relates to social systems, cultures, and socialization, as fairytales are used by parents and teachers to socialize and educate their children, and are closely related to a culture's values and norms. So by connecting the two

concepts, we can socialize and educate children at an early age about what cybersecurity practices are good to do, increasing the cyber safety of families as a whole.

Conclusion

Any good cybersecurity system has to accommodate the humans using it, as we are the weakest link when it comes to security. Educating users is vital to promoting good cyber hygiene and reducing the risk and severity of an attack. This paper tries to encourage the use of comparing cyberattacks and behaviors with fairytale stories, as large numbers of people will know these stories, and can better understand complex cyber terms when compared to their simplistic fairytale counterparts. By implementing the author's idea of "cybersecurity show and tell", we could educate children, adults, and the elderly on how to be safe online in an entertaining and memorable fashion.

Works Cited

Viganò, L. (2024, April 12). The cybersecurity of fairy tales. *Journal of Cybersecurity*, 10(1).

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