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Deceptive Design Patterns in Applications targeted at Minors: An audit of App Store categories [Working title]

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Date: As of now
Type: Bachelor's Thesis, Master's Thesis
Language: German or English

Motivation:

While mobile application stores employ rigorous content rating systems (e.g. labels to show suitability for certain age ranges) to filter inappropriate content, these classifications primarily focus on audiovisual themes (e.g. violence or language) and rarely account for the structural design and behavioral economics of the software. The dominance of the "freemium" business model has incentivized the use of aggressive retention and monetization strategies, frequently referred to as "deceptive design patterns" (or "dark patterns"). These mechanics often exploit the developmental vulnerabilities of minors such as limited impulse control and lower digital literacy. This thesis examines the intersection of revenue-centric interface design and the cognitive vulnerabilities of younger users.

Goal:

The goal of this thesis is to identify, categorize, and analyze the prevalence of deceptive design patterns in mobile applications targeted at minors. The methodology of this thesis can be adjusted to the student's preferences and will either be to conduct an empirical audit of exemplary top-ranked applications to quantify and verify the prevalence of the mechanics found in the literature OR perform a more in-depth systematic literature review to synthesize current academic understanding of how these business models undermine parental mediation and child autonomy. Potential research questions include: How are deceptive design patterns integrated into Apps labeled under the "Kids" category in App Stores? What makes children more vulnerable than adult users to specific design choices in Apps and how are these exploited by App developers? How does different labeling in the App Store affect monetization mechanics of Apps targeted at minors?

References and Related Literature:

5Rights Foundation (2023). "Disrupted childhood: The cost of Persuasive Design".

DiGeronimo, L., Braz, L., Fregnan, E., Palomba, F., Bacchelli, A. (2020). "UI Dark Patterns and Where to Find Them: A Study on Mobile Applications and User Perception". *CHI 2020 Proceedings*, Honululu, USA.

Radesky, J., Hiniker, A., McLaren, C., Akgun, E., Schaller, A., Weeks, H., Campbell, S., Gearhardt, A. N. (2022). "Prevalence and Characteristics of Manipulative Design in Mobile Applications Used by Children".