

## **Beyond the Filter: Navigating the Psychological Impact of Generative AI on Self-Perception**

The advent of consumer-facing generative artificial intelligence (GenAI) tools has accelerated the presence of fake images online, boosting the number more than fivefold since 2019<sup>1</sup>. On platforms like Instagram and TikTok, idealized body types with hyper-realistic beauty filters and deepfakes fuel unhealthy comparisons, with nearly 40% of teens reporting dissatisfaction, anxiety, and depression associated with social media use<sup>2</sup>. We aim to help teens manage their technology use and foster mindful digital habits to support their overall well-being in the growing GenAI landscape.

Our Single Session Intervention (SSI), called *Beyond the Filter*, raises awareness of the psychological impacts and teaches media literacy skills to critically analyze GenAI content. The SSI supports agency and self-confidence, through advancing knowledge and measures to take command of their technology use and self-perception. By fostering a realistic understanding of media influence, it offers hope for achievable standards of self. While the framework applies broadly, this SSI was designed for 13 to 17 year old girls from any background.

Most interventions on technology take shape in the form of broader awareness campaigns, and media literacy courses. Our SSI has a focused objective on GenAI and body image, an area largely unexplored in current interventions. As one's level of involvement determines effectiveness<sup>3</sup>, our SSI stands out by incorporating interactive elements that inform and teach users to critically assess the AI generated content, while introducing strategies in setting boundaries with GenAI use. The self-testing, reflection and personalized action plan created from user responses promotes a lasting impact on discernment of visual reality and fantasy.

Understanding how a technology operates helps mitigate its power over user well being by fostering a sense of control. When individuals comprehend the mechanisms behind the digital platforms, they are less

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<sup>1</sup> Security Hero. "2023 State of Deepfakes: Realities, Threats, and Impact." [www.securityhero.io](http://www.securityhero.io), 2023.

<sup>2</sup> Krzymowski, James. "The Link between Social Media and Body Image Issues among Youth in the United States." *Ballard Brief*, May 2024

<sup>3</sup> Jeong, Se-Hoon, et al. "Media Literacy Interventions: A Meta-Analytic Review." *Journal of Communication*, vol. 62, no. 3, 24 Apr. 2012, pp. 454–472

susceptible to manipulation. Support for informed choices and mindful attention in this manner are key principles of Positive Computing, which advocates for building technological designs to support psychological well-being<sup>4</sup>.

Consistent with the Positive Computing framework, the intervention begins with a self-reflection exercise whereby participants analyze their recent media consumption and evaluate the impact on their emotions and self-perception. By encouraging awareness, the SSI will help them recognize patterns in technology's influence on their well-being. Participants will then engage in an interactive quiz to detect GenAI images. The feedback will teach users to distinguish between manipulated and authentic content.

Following the quiz, participants view a brief explanatory video on AI-generated image distortions, and learn about their psychological effects, as well as techniques for identifying synthetic content. This segment will empower participants with the knowledge needed to critically assess media, strengthening their sense of control over their technology use. After that, participants will reflect on their feelings and confidence in navigating through future content.

To solidify the intervention's impact, participants create a personalized action plan based on their immediate thoughts and future measures to be taken by selecting at least one strategy to mitigate the effects of AI-driven media on their self-perception. This step fosters a proactive approach to establishing and maintaining personal boundaries with technology.

Our SSI educates participants on how GenAI content is created thus fostering a realistic understanding of media influence and reducing feelings of hopelessness with unattainable standards. Moreover, we provide tools for users to navigate the digital landscape confidently by having them create an action plan that restores agency in individuals and sets a plan for long term benefits and behavior change. Through increased awareness, perceived control, and confidence in setting technology boundaries, participants will develop a more mindful and empowered approach to digital media consumption.

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<sup>4</sup> Calvo, Rafael A., et al. "Editorial for "Positive Computing: A New Partnership between Psychology, Social Sciences and Technologists." *Psychology of Well-Being*, vol. 6, no. 1, 4 July 2016