

Digital Wellbeing for Teens: Designing Educational Systems (DIGI-Teens 2024)

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Digital Wellbeing for Teens: Designing Educational Systems (DIGI-Teens 2024) / Ceccarini, Chiara; Prandi, Catia; Monge Roffarello, Alberto; De Russis, Luigi. - STAMPA. - (2024), pp. 1-3. (Intervento presentato al convegno 17th International Conference on Advanced Visual Interfaces (AVI '24) tenutosi a Arenzano (ITA) nel 3-7 June 2024) [10.1145/3656650.3660538].

Availability:

This version is available at: 11583/2989308 since: 2024-06-04T14:58:47Z

Publisher:

Association for Computing Machinery

Published

DOI:10.1145/3656650.3660538

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Digital Wellbeing for Teens: Designing Educational Systems (DIGI-Teens 2024)

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ABSTRACT

Recent research has identified the detrimental consequences stemming from the pervasive and excessive use of digital devices, prompting the emergence of the concept of *digital wellbeing*. This workshop serves as a platform for both researchers and practitioners to convene and delve into discussions surrounding the imperative task of *educating* young generations on digital wellbeing. Participants will engage in a collaborative exploration of innovative strategies and tools aimed at fostering a more mindful and conscious engagement with digital platforms. Through shared insights and collective expertise, the workshop aims at paving the way for a healthier and more balanced relationship with technology among today's teenagers.

CCS CONCEPTS

• **Human-centered computing** → *Human computer interaction (HCI)*; **Collaborative and social computing**.

KEYWORDS

digital wellbeing, attention economy, digital self-control tools, education, teenagers

ACM Reference Format:

Chiara Ceccarini, Catia Prandi, Alberto Monge Roffarello, and Luigi De Russis. 2024. Digital Wellbeing for Teens: Designing Educational Systems (DIGI-Teens 2024). In . ACM, New York, NY, USA, 3 pages. <https://doi.org/10.1145/nnnnnnn.nnnnnnn>

1 INTRODUCTION

Recently, researchers have been examining the unforeseen issues caused by the excessive use of personal devices and online services, especially as companies increasingly employ “attention-capture” tactics like guilty-pleasure recommendations and automatic content

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Conference'17, July 2017, Washington, DC, USA

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ACM ISBN 978-x-xxxx-xxxx-x/YY/MM

<https://doi.org/10.1145/nnnnnnn.nnnnnnn>

playback [4, 9]. These strategies exploit users' psychological vulnerabilities, aiming to boost advertising revenue, resulting in tangible repercussions on users' perceived agency and often leading to a perceived lack of control over their technology use. These problems gave rise to a new kind of psychological “digital wellbeing [1, 3, 6],” investigated in fields such as Human-Computer Interaction (HCI) and psychology.

Traditional strategies employed by practitioners and researchers involve the creation of Digital Self-Control Tools (DSCTs) [5, 10], i.e., mobile applications and browser extensions that empower users to monitor their usage patterns and implement interventions, such as timers and lock-out mechanisms, to self-regulate device usage. Yet, researchers and the users themselves are starting to warn that achieving digital wellbeing is a path of personal growth that requires education more than self-monitoring strategies [2, 7, 8].

The objective of this workshop is to establish a venue for the academic and industrial communities to discuss ongoing research and ideas at the intersection of digital wellbeing and education, aiming to promote the development of strategies and tools to “teach” users – particularly children and teenagers – to use technology more meaningfully and consciously. This objective can be achieved in multiple ways, such as by creating novel DSCTs that include educational aspects, serious games, or collaborative platforms to introduce and support digital wellbeing learning at school.

2 TOPICS OF INTEREST

The topics of interest for the workshop include, but are not limited to:

- participatory and co-design of digital wellbeing systems;
- tools and strategies to teach digital wellbeing at school;
- strategies and tools for measuring students' digital wellbeing;
- novel DSCTs that include educational aspects;
- gamification strategies for digital wellbeing;
- ethical, social, and political factors.

3 EVENT FORMAT

Table 1 summarizes the program of the workshop (half-day, 4 hours). It will generally be oriented toward discussions, hands-on sessions, and presentations. At the beginning of the workshop, participants

will be welcomed and introduced to the workshop's goals and organizers. The rest of the first half of the workshop will be dedicated to the presentation of accepted position papers. Participants will be encouraged to provide short but provoking presentations that tackle questions in line with the workshop goals. They will be provided a 10-minute time slot for presentation and Q&A. In the second half of the workshop, we will carry out an affinity diagramming phase with the aim of identifying critical aspects of the workshop themes. Then, we will perform a brainstorming activity and co-design exercises, where groups of participants deepen a theme and try to find possible solutions to the identified problems. Finally, each group leader will present and discuss the results of their work. The workshop will be wrapped up with a discussion of ways to move forward. This can include the initiation of joint publications, the organization of a new edition of the workshop, and a journal special issue on the topic. Virtual participation will be made possible.

Table 1: Workshop organisation

Time	Activity
9:15-9:30	Welcome and introduction
9:30-11:00	Paper presentations
11:00-11:15	Coffee break
11:15-12:00	Affinity diagram and co-design exercises
12:00-12:45	Brainstorming and discussion
12:45-13:00	Summaries and Closing Remarks

3.1 Target Audiences

Potential contributors and attendees are researchers and practitioners in the research area of HCI and psychology, as well as teachers of primary, middle, and high school teachers interested in the digital wellbeing topic. The workshop will be of particular interest to the AVI community, as it focuses on creating platforms and innovative interfaces that could be used in collaborative and complex settings, e.g., at school, to promote digital wellbeing awareness. We believe that the number of participants will be around 20.

4 ORGANISERS

Chiara Ceccarini is an Assistant Professor at the Department of Computer Science and Engineering of the University of Bologna (Italy). Her research focuses on Human-Computer Interaction and data visualization, with the primary goal of designing and evaluating interactive systems that promote awareness of issues of social relevance such as sustainability and digital wellbeing. She is an ACM member.

Catia Prandi is a Senior Assistant Professor at the Department of Computer Science and Engineering of the University of Bologna (Italy) and a research fellow at ITI/LARSyS (Portugal). Her research interests focus on Human-Computer Interaction and pervasive computing for social good, with a specific interest in co-design methodologies, open innovation, and game thinking to increase users' participation and awareness. She is an ACM and IEEE member. She serves as an Adjunct Chair in the ACM SIGCHI Executive Committee, and she is a Steering Committee member of the ACM SIGCAS GoodIT conference.

Alberto Monge Roffarello is an Assistant Professor at the Department of Control and Computer Engineering (DAUIN) at Politecnico di Torino, in Italy. His research targets the end-user personalization of smart devices, online services, and user's behaviors with these technologies. In his research, he investigated end-user personalization in different domains, ranging from end-user development in IoT ecosystems to novel digital self-control tools and approaches for digital wellbeing. He is an IEEE-HKN and ACM member.

Luigi De Russis is an Associate Professor at the Department of Control and Computer Engineering (DAUIN) at Politecnico di Torino, in Italy. In his research, he investigates how people can make their experiences with computers more personal. He currently works on digital wellbeing, personalization of Internet of Things systems, and human-centered AI tools. During his Ph.D., he was Department Editor of the ACM XRDS (Crossroad) student magazine and, currently, he serves as an Associate Editor for the International Journal of Human-Computer Studies (IJHCS). He is also an IEEE, IEEE-CS, and ACM member. He serves as the Executive Vice-President in the ACM SIGCHI Executive Committee.

ACKNOWLEDGMENTS

The DIGI-Teens workshop is part of the "Improving digital wellbeing with and for teens: a gamified and personalized intelligent system" project – funded by European Union – Next Generation EU within the PRIN 2022 program (D.D. 104 - 02/02/2022 Ministero dell'Università e della Ricerca).

REFERENCES

- [1] Christopher Burr, Mariarosaria Taddeo, and Luciano Floridi. 2020. The Ethics of Digital Well-Being: A Thematic Review. *Science and Engineering Ethics* (2020), 2313–2343. <https://doi.org/10.1007/s11948-020-00175-8>
- [2] Rosella Gennari, Maristella Matera, Diego Morra, Francesco Puglisi, and Mehdi Rizvi. 2022. Designing for Digital Social Well-being: a Different and Inclusive Perspective (*Desig4DWB*).
- [3] Google. 2022. Digital Wellbeing - Find a balance with technology that feels right for you. <https://wellbeing.google/> Accessed: 2022-05-12.
- [4] Kai Lukoff, Ulrik Lyngs, Himanshu Zade, J. Vera Liao, James Choi, Kaiyue Fan, Sean A. Munson, and Alexis Hiniker. 2021. How the Design of YouTube Influences User Sense of Agency. In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems (CHI '21)*. Association for Computing Machinery, New York, NY, USA, Article 368, 17 pages. <https://doi.org/10.1145/3411764.3445467>
- [5] Ulrik Lyngs, Kai Lukoff, Petr Slovak, Reuben Binns, Adam Slack, Michael Inzlicht, Max Van Kleek, and Nigel Shadbolt. 2019. Self-Control in Cyberspace: Applying Dual Systems Theory to a Review of Digital Self-Control Tools. In *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems* (Glasgow, Scotland UK) (*CHI '19*). Association for Computing Machinery, New York, NY, USA, 1–18. <https://doi.org/10.1145/3290605.3300361>
- [6] Alberto Monge Roffarello and Luigi De Russis. 2019. The Race Towards Digital Wellbeing: Issues and Opportunities. In *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems* (Glasgow, Scotland UK) (*CHI '19*). Association for Computing Machinery, New York, NY, USA, 1–14. <https://doi.org/10.1145/3290605.3300616>
- [7] Alberto Monge Roffarello and Luigi De Russis. 2021. Coping with Digital Wellbeing in a Multi-Device World. In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems* (Yokohama, Japan) (*CHI '21*). Association for Computing Machinery, New York, NY, USA, Article 538, 14 pages. <https://doi.org/10.1145/3411764.3445076>
- [8] Alberto Monge Roffarello and Luigi De Russis. 2023. Teaching and learning "Digital Wellbeing". *Future Generation Computer Systems* 149 (2023), 494–508. <https://doi.org/10.1016/j.future.2023.08.003>
- [9] Alberto Monge Roffarello, Kai Lukoff, and Luigi De Russis. 2023. Defining and Identifying Attention Capture Deceptive Designs in Digital Interfaces. In *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems* (*CHI '23*). Association for Computing Machinery, New York, NY, USA, Article 194, 19 pages. <https://doi.org/10.1145/3544548.3580729>

- [10] Alberto Monge Roffarello and Luigi De Russis. 2023. Achieving Digital Wellbeing Through Digital Self-Control Tools: A Systematic Review and Meta-Analysis.

ACM Trans. Comput.-Hum. Interact. 30, 4, Article 53 (sep 2023), 66 pages. <https://doi.org/10.1145/3571810>