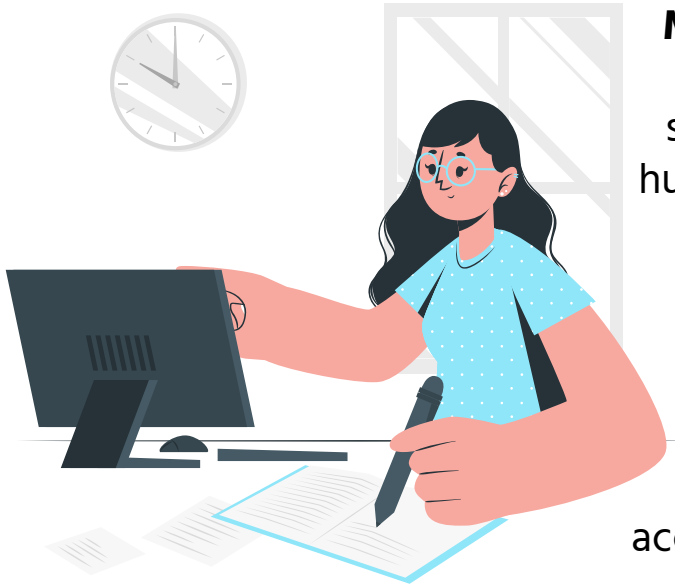
“I Don’t Even Remember What I Read”

How Design Influences Dissociation on Social Media

CHI '22, April 29 – May 5, 2022, New Orleans, LA, USA

BACKGROUND

CHI ‘22, April 29 2022



Amanda Baughan
Designs systems focusing on emotional, cognitive and social impacts in HCI

Mingrui “Ray” Zhang
Develops AI-driven systems that adapt to human needs, enhancing user interaction.

Raveena Rao
Focuses on improving user experience and accessibility in ICT design.

Kai Lukoff
Researches the effects of digital interfaces on mental health, privacy and ethics

Anastasia Schaadhart
Advances digital equity and accessibility through inclusive information systems.

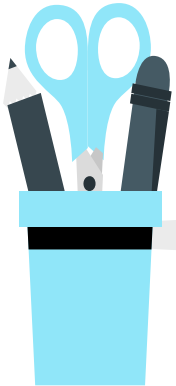
Lisa Butler
Studies technology support for emotional well being and social justice in HCI

Alexis Hiniker
Explores technology’s role in promoting healthy digital habits and well-being.

Normative Dissociation

Passive Dissociation

- Involuntary Absorption such as daydreaming
- Occurs during routine activities
- No deliberate purpose



Active Dissociation

- Planned Absorption
- Usually recreational activities
- Specific purpose / Goal oriented

ABSTRACT

01

Objectives

- How social media design affects normative dissociation
- Do people dissociate on social media?

02

Contributions

- Highlighted the set of features that influence the likelihood of normative dissociation
- Provided insights for creating social media designs that balance user engagement and disengagement.

03

Findings

- Normative dissociation offers moments of mental relief but often leads to wasted time.
- Designers have the power to encourage normative dissociation and to disrupt it

Methodology

Approaches and Research Methods

- Experience Sampling Method (ESM)
- Interviews
- Mixed-methods analysis

Data Collection Application

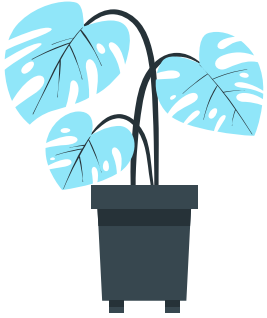
- Custom Twitter Client, Chirp

43 participants

Experience Sampling for 4 weeks

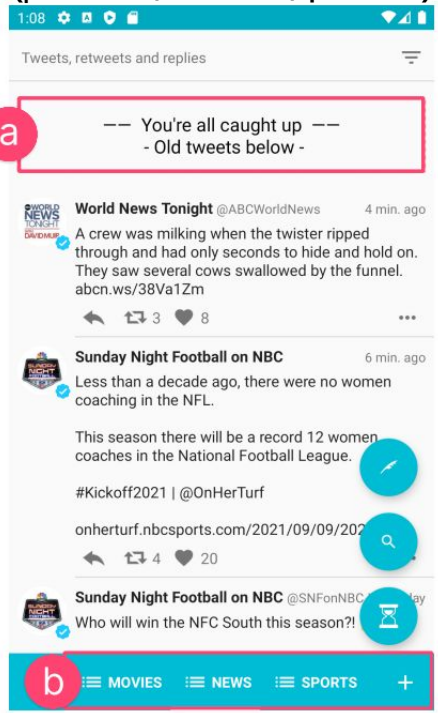
11 Interviewees Selected

Qualitative & Quantitative Data Analysis

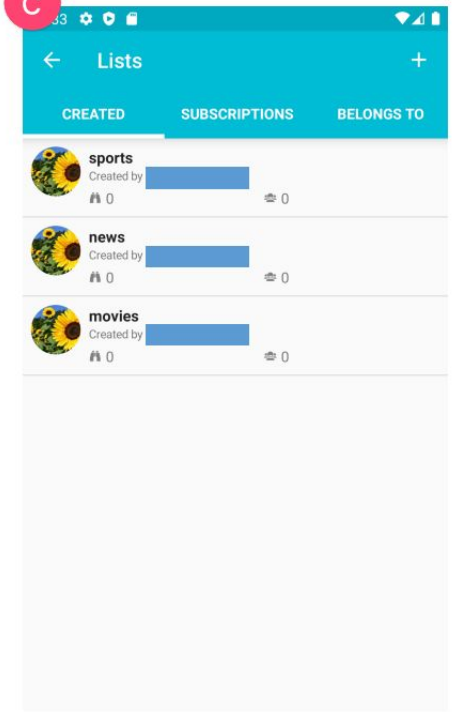


Results

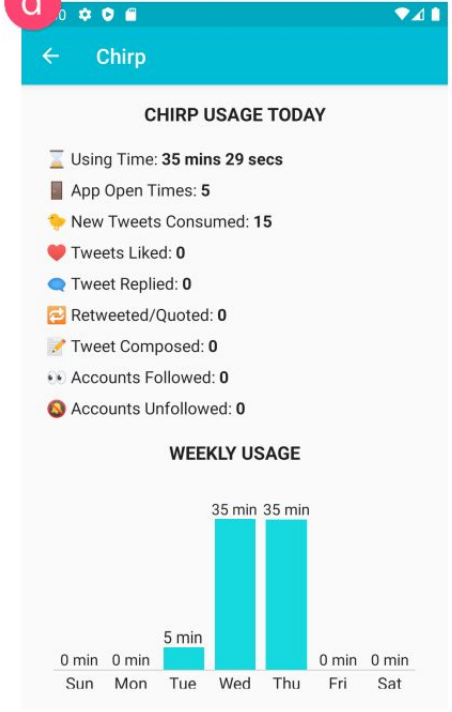
Reading History Labels a were associated with less dissociation (β=-0.046, t=-4.158, p<0.001)



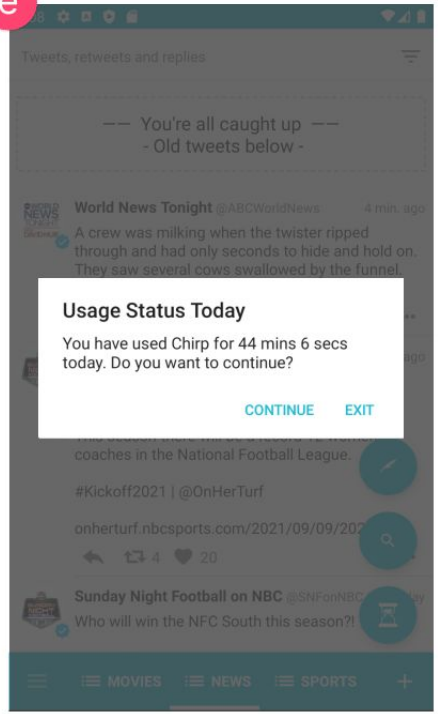
Custom Lists b, c reduced dissociation (β=-0.027, t=-4.763, p<0.001)



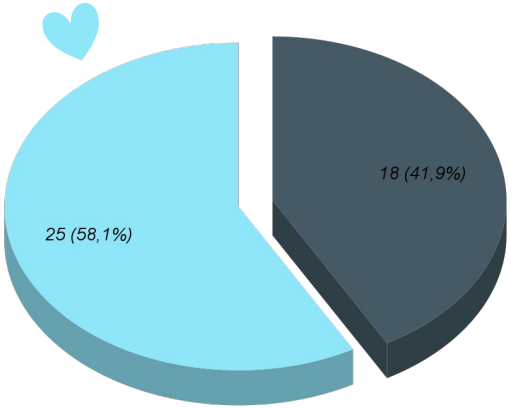
Usage statistics page d was associated with less dissociation (β=-0.016, t=-2.898, p=0.004)



Time limit reminder e had mixed results (β=-0.172, t=2.616, p=0.009)



Results

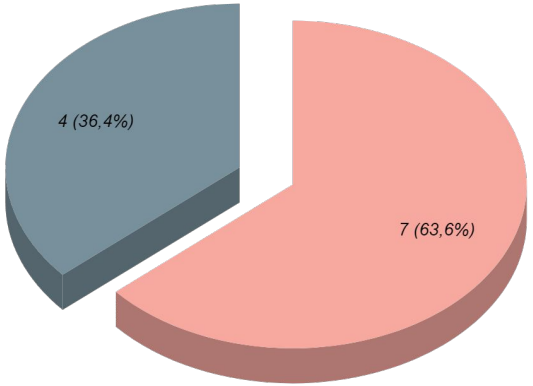


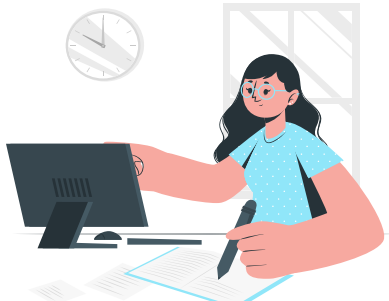
41.9%
Dissociated at least once

58.1%
Never dissociated

36.4%
No dissociation

63.6%
Regular dissociations





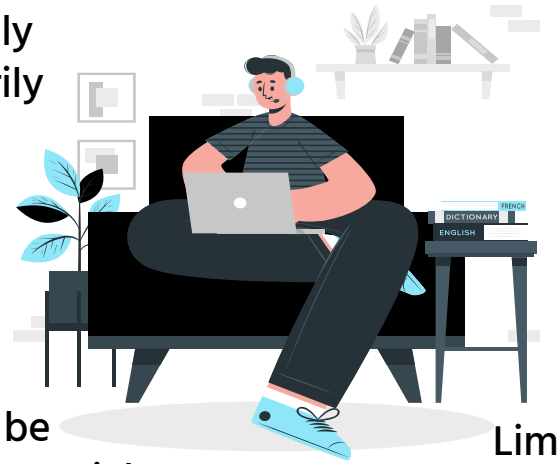
Discussion

01

Seeking normative dissociation is often beneficial and widely experienced, not necessarily harmful.

02

Normative dissociation reduces self-awareness and control, making it harder to stop using social media.



03

Normative dissociation may be a more appropriate way to frame social media overuse rather than calling it addiction.

04

Limitations include lack of content influence analysis, platform specific focus and potential bias in ESM timing

Conclusion

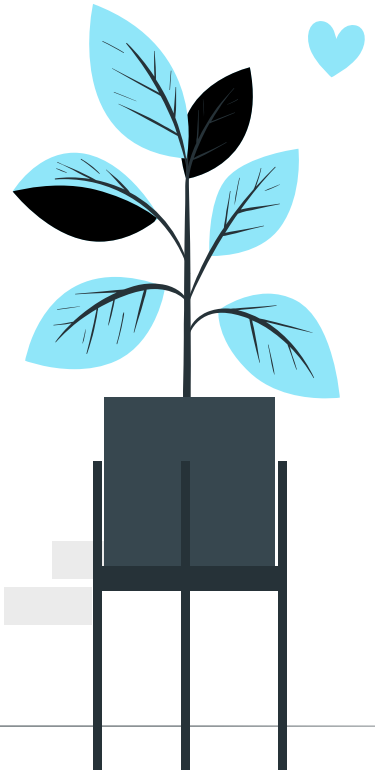
The study confirms that people experience dissociation on social media, and design plays a key role in how much they dissociate. Incorporating certain design features like custom lists, reading history labels and usage statistics can help mitigate dissociation and promote healthier habits.

These findings suggest that HCI designers can leverage this understanding to create interfaces that encourage more balanced and mindful social media use.

References

ACM SIGCHI. ""I Don't Even Remember What I Read": How Design Influences Dissociation on Social Media." *YouTube*, 3 Apr. 2022, www.youtube.com/watch?v=s8Zf8bRB1lw. Accessed 11 Sept. 2024.

Baughan, Amanda, et al. ""I Don't Even Remember What I Read": How Design Influences Dissociation on Social Media." *CHI Conference on Human Factors in Computing Systems*, 27 Apr. 2022, https://doi.org/10.1145/3491102.3501899.



A11yBoard:

Making Digital Artboards Accessible to Blind and Low-Vision Users

2023 CHI Conference on Human Factors in Computing Systems

Background

Zhuohao (Jerry) Zhang

B.Eng. in Computer Science, M.S. in Computer Science

Currently a Ph.D. student at the University of Washington with a focus on HCI and accessible technologies

Jacob O. Wobbrock

Professor of Information at the University of Washington

2021 ACM Fellow

Ph.D. in Human-Computer Interaction, M.S. in Computer Science, B.S. in Symbolic Systems

Background

Problem

Inaccessibility of Digital Artboards for blind and low-vision (BLV) users

Limitation

Screen Readers in 2D Spaces

Difficulty

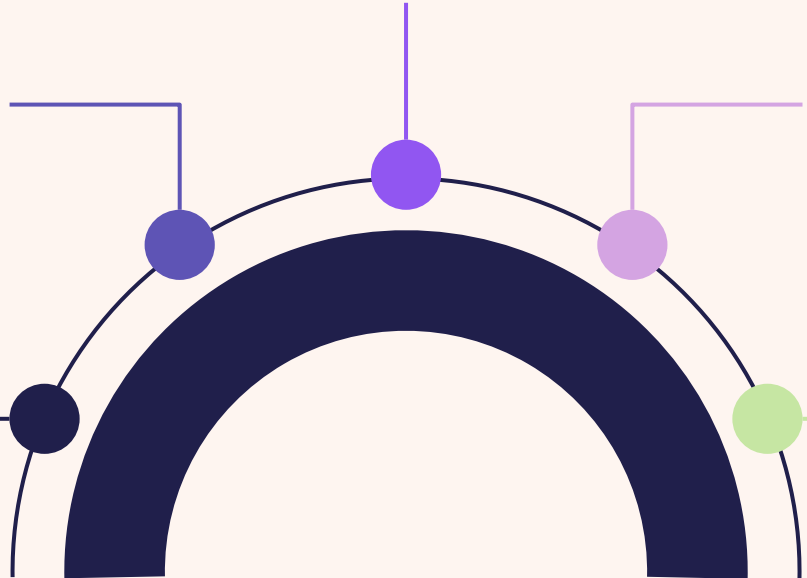
Object Placement Relationships

Overload

High Cognitive Load

Uncertainty

Success of Operations



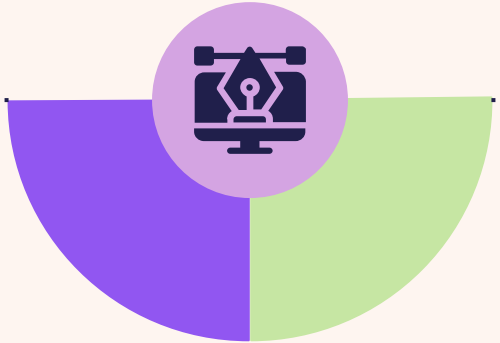
Abstract

Main Objective

Develop a multimodal tool to make digital artboards accessible to BLV users.

Findings

Multimodal tools improves interpretation and creation of artboards for BLV users.



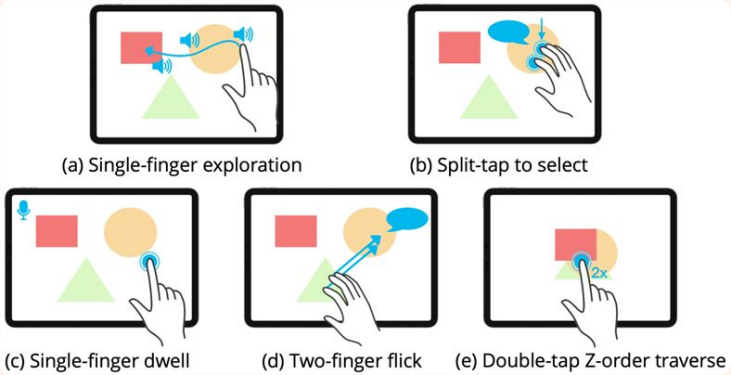
Contributions

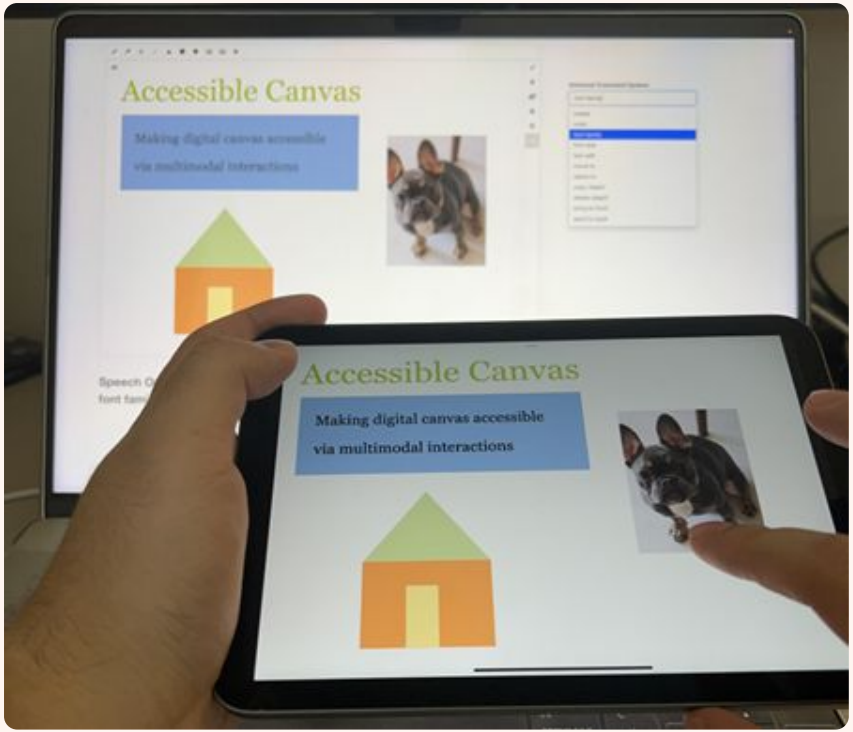
Accessibility & Inclusivity in 2D Spaces

A11yBoard

Design Implementation

Consists of a web-based artboard tool displayed on a desktop or laptop, with a mobile touch screen for interaction and a keyboard for input commands.





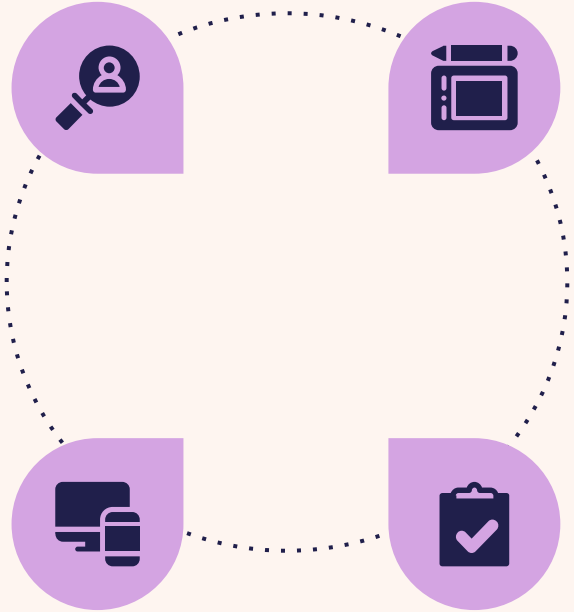
Methodology

User-Centered Design Process

Pilot Usability Study

multi-modal interactive system

Formal Usability Study



Participant Demographic

Figure 1: Age and Gender Distribution of Participants

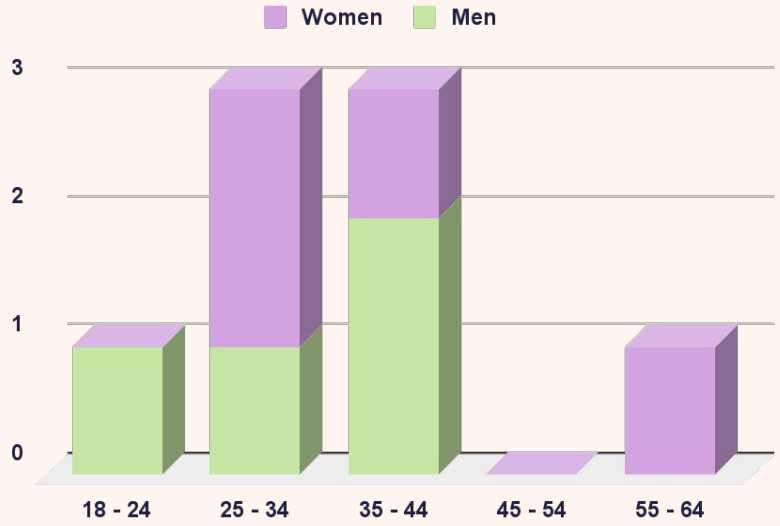
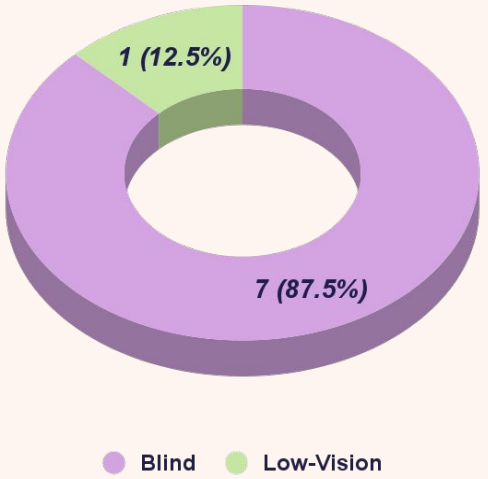


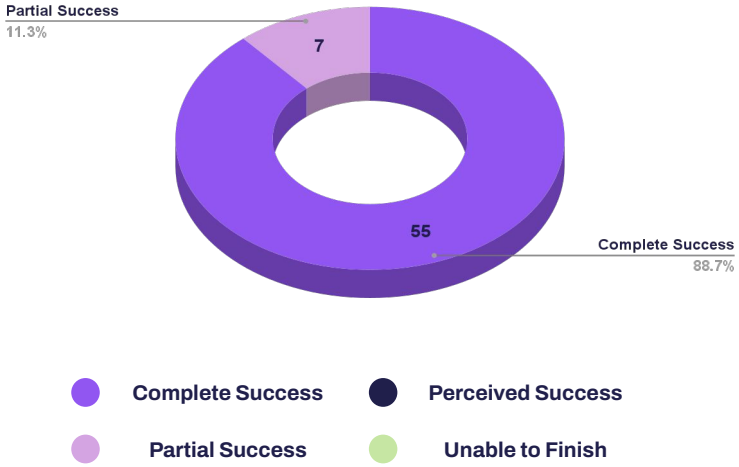
Figure 2: Vision Status of Participants



Results

- 100% were at least partially successful
- Perceived workload was relatively low
- Low frustration mental, physical, and temporal demand

Figure 3: Interpretive Task Completion Outcomes for BLV Participants



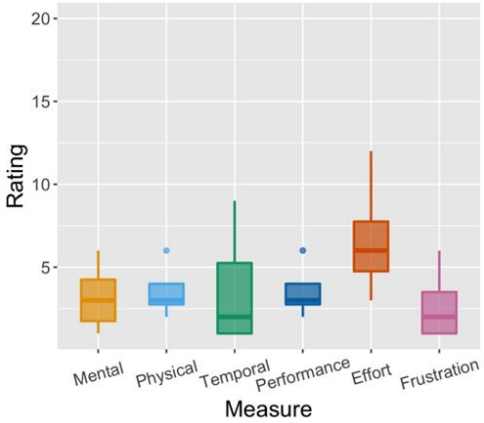


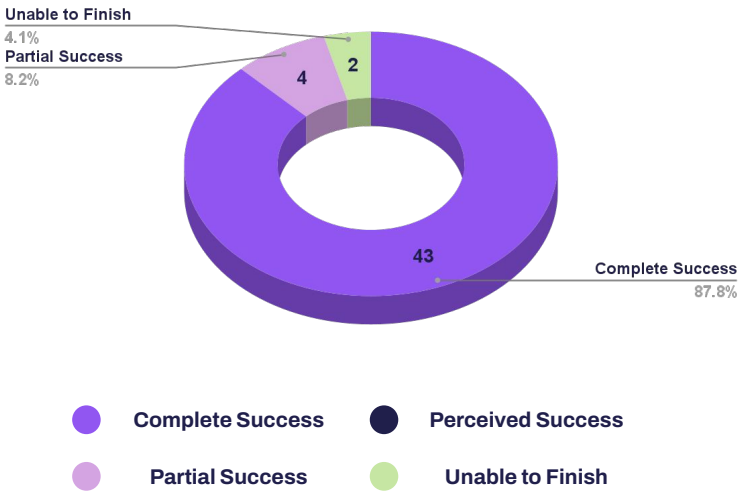
Figure 4: Box plots of NASA TLX perceived workload ratings for interpretive tasks.

[1] **Partial Success** - participants either completed the task with aid of a hint, or completed only part of the task successfully
[2] **Perceived Success** - participant thought they were successful, but they were not
[3] **NASA TLX** - scales ranged from 1 - 20. On all scales, lower is better, corresponding to a lesser workload.

Results

- 96% were at least partially successful
- Perceived workload was relatively low
- Low frustration mental, and physical demand

Figure 5: Generative Task Completion Outcomes for BLV Participants



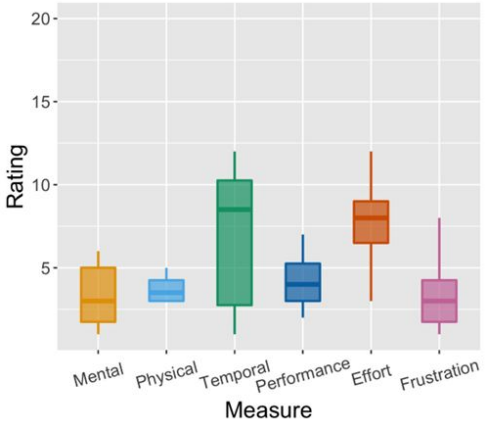
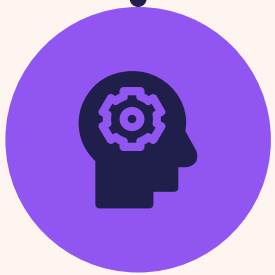


Figure 6: Box plots of NASA TLX perceived workload ratings for generative tasks.

[1] **Partial Success** - participants either completed the task with aid of a hint, or completed only part of the task successfully
[2] **Perceived Success** - participant thought they were successful, but they were not
[3] **NASA TLX** - scales ranged from 1 - 20. On all scales, lower is better, corresponding to a lesser workload.

Discussion - Findings

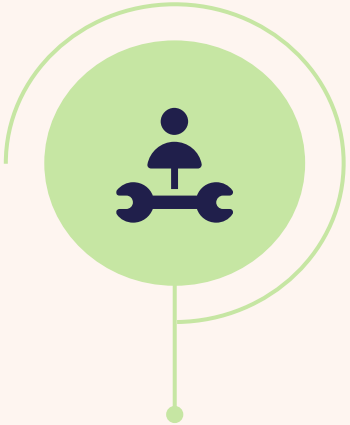
Intuitive Spatial Reasoning



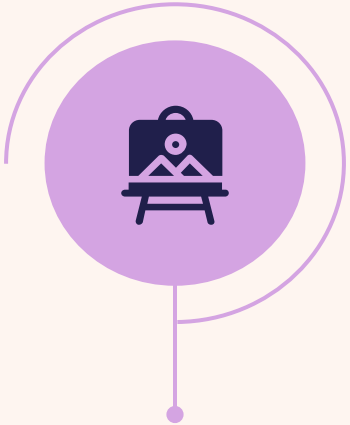
Multimodal access to objects' properties and relationships

Eyes-Free Object Creation and Editing

Discussion - Significance



A11yBoard addresses critical accessibility gaps in visual content creation.



Expands creative capabilities for BLV users beyond simple text-based interactions.

Paves the way for integrating accessibility into mainstream digital artboard tools

Discussion - Limitations & Future Work

Small Participant Pool

Further Testing Required

DrawerJS Limited Functionality

Integration with Existing Tools

Conclusion

- Existing digital artboards tools fall short in terms of accessibility and inclusivity for BLV users
- A11yBoard can greatly enhance the accessibility of digital artboards for BLV users
- Vital contribution to the HCI field in terms of accessibility and inclusivity.
- *" [shows] how people with disabilities can be moved from mere consumers of content to creators of their own content "*

References

Zhuohao (Jerry) Zhang and Jacob O. Wobbrock. 2023. A11yBoard: Making Digital Artboards Accessible to Blind and Low-Vision Users. In *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (CHI '23), April 23–28, 2023, Hamburg, Germany.* ACM, New York, NY, USA, 17 pages. https://doi.org/10.1145/3544548.3580655.

Zhuohao Zhang. 2023. [CHI2023] A11YBoard: Making digital artboards Accessible to Blind and Low-Vision Users. *YouTube*. Retrieved from https://www.youtube.com/watch?v=RXiOwwwtt-0

Cheat Codes as External Support for Players Navigating Fear of Failure and Self-Regulation Challenges In Digital Games

CHI’ 2024

BACKGROUND

CHI '24, MAY 11–16, 2024, HONOLULU, HI, USA

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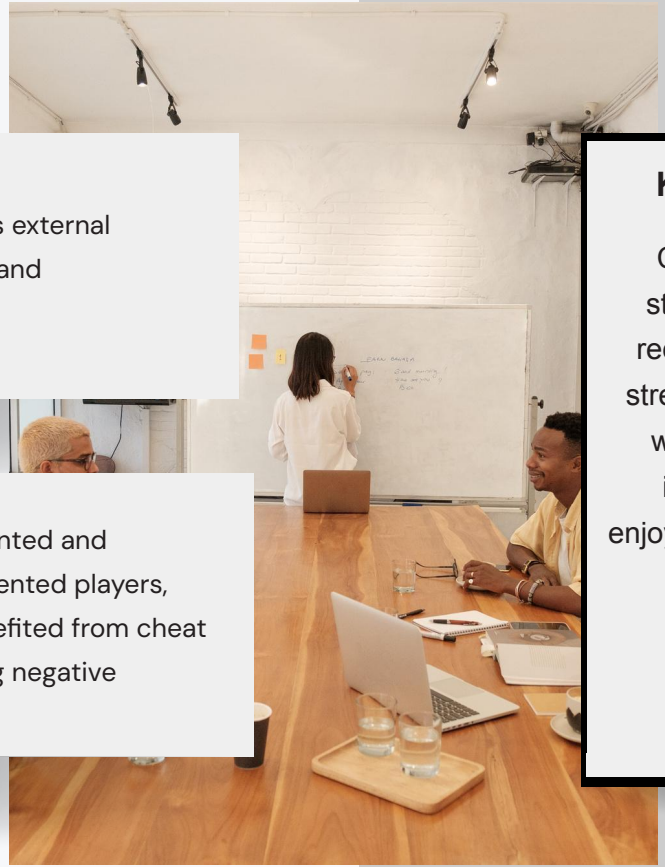
ABSTRACT

Main Objectives

The study investigates how cheat codes act as external support to help players manage fear of failure and self-regulation difficulties in digital games.

Contributions

It examines the differences between state-oriented and action-oriented players, showing that state-oriented players, who typically struggle with self-regulation, benefited from cheat codes as external support without experiencing negative impacts on motivation or performance.



Key Findings

Cheat codes helped state-oriented players reduce pressure during stressful game situations without harming their intrinsic motivation, enjoyment, or performance.

METHODOLOGY

Research Methods

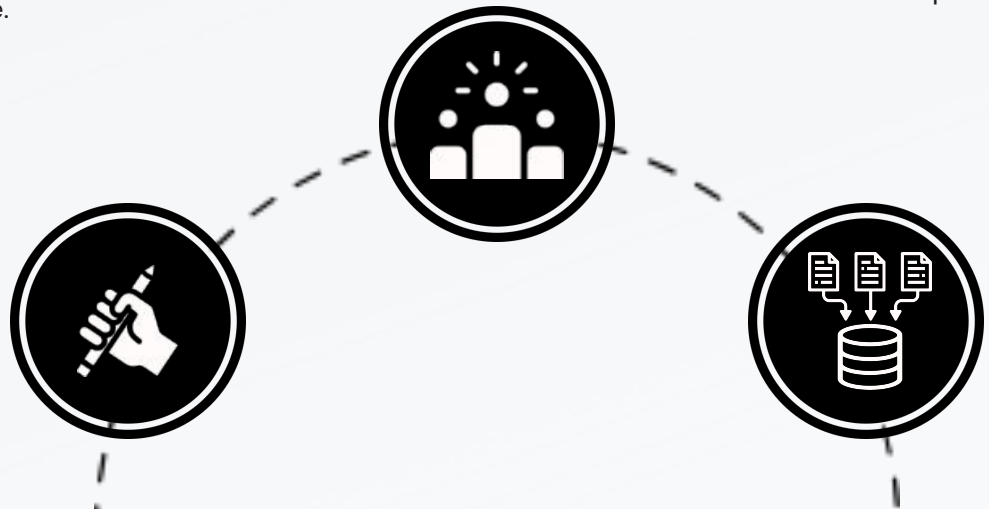
• The study used a lab experiment where participants (88 novice players) played a city-management game (Anno 1404).
• Participants faced a stressful situation involving the risk of financial failure in the game.

Experimental Design

Players were randomly assigned to two conditions: “rich” (enough resources to survive) and “poor” (close to financial ruin). They were offered the option to use a money-generating cheat code during the game.

Data Collection

The study measured participants’ self-regulation abilities using the Action Control Scale and collected data on their game performance, cheat code usage, and player experience (motivation, pressure, etc.).



RESULTS

Key Findings

- State-oriented players (those with lower self-regulation abilities) were more likely to use cheat codes, and their use of cheat codes helped them manage game-related stress more effectively.
- Cheat codes did not negatively impact players' intrinsic motivation, needs satisfaction, or flow during the game. This suggests that external support mechanisms can benefit players without diminishing their gaming experience.

	Used Cheat					Did Not Use Cheat				
	N	Min	Max	Mean	SD	N	Min	Max	Mean	SD
IMI: Pressure	55	1.20	3.80	2.52	0.68	32	1.20	4.40	2.59	0.91
IMI: Enjoyment	55	1.00	4.43	2.29	0.82	32	1.29	4.43	2.93	0.98
IMI: Competence	55	1.00	3.50	2.32	0.62	32	1.00	3.83	2.35	0.71
PENS: Competence	55	1.00	3.67	2.01	0.85	32	1.00	3.67	2.00	0.83
PENS: Autonomy	55	1.00	4.67	2.81	1.03	32	1.00	4.33	2.88	1.08
PENS: Intuitive Control	55	1.00	4.67	2.63	0.97	32	1.00	5.00	2.90	1.10
PENS: Presence	55	1.00	3.67	2.17	0.79	32	1.00	3.56	2.17	0.81
Flow: Fluency	55	1.00	5.33	2.86	1.22	32	1.00	6.17	3.13	1.44
Flow: Absorption	55	1.00	6.75	3.74	1.58	32	1.00	6.75	3.58	1.75
Action-State Orientation	55	0	12	3.85	3.00	32	0	12	5.28	3.22
Performance before cheat	55	-643	-158	-482	111	32	-584	14	-475	139
Performance at game end	55	-1230	246	-393	275	32	-1027	742	-276	331

Table 1: Show descriptive statistics split by whether or not participants used the cheat codes.

DISCUSSION

- Cheat codes can serve as an important external support for players, particularly those who struggle with managing stress and failure in games.
- The study challenges the negative connotation of cheating in single-player games, suggesting that for some players, cheats can improve the emotional and gameplay experience.

IMPLICATIONS

The study's findings are limited to novice players in a single game (Anno 1404), and further research is needed to generalize the results to other game genres or more experienced players.

LIMITATIONS

CONCLUSION

Main Takeaways:

- Cheat codes can serve as a useful tool to alleviate stress for players with self-regulation challenges, without compromising their enjoyment or game performance.

Relevance & Impact

- This research contributes to the HCI field by offering new insights into how game design can be more inclusive of players with different emotional needs. It also emphasizes the importance of considering individual differences in self-regulation when designing games that support diverse player experiences.

SOME

REFERENCES

[1] Monischa B Amlinger-Chatterjee and Nicola Baumann. 2018. The We Helps Me: Poor Emotion-regulators Beneft from Relatedness. Polish Psychological Bulletin (2018).

[2] Mack Ashworth. 2022. Modern Warfare 2 (MW2) Cheats: Aimbot, Wallhack, Rapid Fire. https://www.gamerevolution.com/guides/912595-modern-warfare2-cheats-aimbot-wallhack-pc-ps5-ps4-xbox-mw2

[3] Batu Aytemiz and Adam M. Smith. 2020. A Diagnostic Taxonomy of Failure in Videogames. International Conference on the Foundations of Digital Games, 1–11. https://doi.org/10.1145/3402942.3402979 3514.89.5.781

THANK'S FOR WATCHING