

Digital Fictions: Towards Designing Narrative Driven Games as Therapy¹

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TOWARDS AN EVOLUTION OF GAME DESIGN

Distress, low self-esteem, self-loathing, self-harm, and eating disorders are just a few of the body dysmorphic disorders (BDD) burdening the lives of many young teenagers. While both men and women experience BDD,² especially young women,³ woman-identified and non-binary individuals tend to be more impacted.⁴ If not treated early, BDD can last into adulthood where the impacted individual's

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 - 2 Koran, Lorin M., et al.: "The Prevalence of Body Dysmorphic Disorder in the United States Adult Population", In: *CNS Spectr* 13 (2008), pp. 316-322.
 - 3 Grogan, Sarah: *Body Image: Understanding Body Dissatisfaction in Men, Women and Children*. London: Routledge 2008 (2. ed).
 - 4 Möllmann, Anne/Fanny A. Dietel, Antje Hunger/Ulrike Buhlmann: "Prevalence of body dysmorphic disorder and associated features in German adolescents: A self-report survey", In: *Psychiatry Res.* 254 (2017), pp.263-267.

quality of life may be threatened.⁵ Furthermore, BDD becomes a serious issue for digital natives with social media as part of their daily routines and realities,⁶ because they are being exposed to unrealistic body ideals.^{7,8}

Traditional therapies that debilitate the symptoms of BDD in their early stages or offer treatment are psychotherapy, selective serotonin reuptake inhibitors (SSRIs), serotonin norepinephrine reuptake inhibitors (SNRIs), or exposure and response prevention. In addition to these pharmaceutical and non-pharmaceutical treatments there is also bibliotherapy. Bibliotherapy is a therapeutic approach or intervention method that employs directed reading to address psychological issues, often in combination with expressive disclosure writing. It is usually used as an adjunct part of a treatment therapy.⁹

Depending on a patient's needs, age, and reading interests, a mental health professional would prescribe a book targeting these specifics during treatment. When it comes to choosing literature, anything from fiction and non-fiction novels, poetry, comics, and other literary materials can be used if it allows a patient to identify with a text or a character. Stories help us experience scenarios we otherwise would not be able to from a safe distance. The safe comfort of a story is what patients use to project their own problems and talk about them in guided therapy settings or as self-help. The effectiveness of bibliotherapy has been shown as early as 1997 by Smith, Floyd, Jamison, and Scogin in a follow-up study on post-bibliotherapy outcomes. Patients who underwent bibliotherapy showed improved mental health outcomes three years after cessation of treatment.¹⁰

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- 5 Halliwell, Emma, and Philippa C. Diedrichs: "Testing a Dissonance Body Image Intervention among Young Girls," in *Health Psychology* 33 (2014), pp. 201-204.
 - 6 Karuna, Nair, et al.: "Can Digital Fiction be Therapy?," October 2021, <https://sites.google.com/ualberta.ca/writingnewbodies/about/digital-born-therapy?>
 - 7 Al Sabbah, Haleama, et al.: "Body weight dissatisfaction and communication with parents among adolescents in 24 countries: international cross-sectional survey", In: *BMC public health* 9 (2009).
 - 8 Bearman, Sarah Kate, Erin Martinez, and Eric Stice: "The skinny on body dissatisfaction: A longitudinal study of adolescent girls and boys", In: *Journal of youth and adolescence* 35 (2006), pp. 217-229.
 - 9 Lindberg, Sara: "What is Bibliotherapy?", In: *VeryWellMind*, August 29, 2021, <https://www.verywellmind.com/what-is-bibliotherapy-4687157>.
 - 10 Smith, Nancy M./Floyd, Mark R./Scogin, Forrest/Jamison, Christine S.: "Three-year follow-up of bibliotherapy for depression", In: *Journal of Consulting and Clinical Psychology* 65 (1997).

However, as this method relies on traditional print media, it might not appeal to the demands of the digital age and it might not reach younger generations that could benefit from a narrative-based therapy.¹¹ The research project WRITING NEW BODIES: CRITICAL CO-DESIGN FOR 21ST CENTURY DIGITAL-BORN BIBLIOTHERAPY strives to engage with a digital bibliotherapy project to close this gap.¹²

The goal of WRITING NEW BODIES (WNB) is to create a novel method for therapy that could appeal to digital natives by combining the playful factor of digital fictions (DF) with the approach of bibliotherapy. A DF is an interactive, often multilinear form of storytelling, that exists exclusively in a digital format. While some DFs are text-based, such as DEPRESSION QUEST, some DFs are 3D and multimodal, such as WALLPAPER or INKUBUS.^{13, 14, 15} Overall, DFs are a highly suitable medium for bibliotherapeutic settings because they are narrative driven. Furthermore, they provide a platform to deal with sensitive topics, such as depression, suicide, or body image issues in a safe and appropriate way.^{16, 17}

This approach offers a promising contribution to the evolution of digital games. Hence, this paper explores the benefits and possibilities of using (DF) games in bibliotherapy in the light of the WNB project. As the project is still in development, we cannot analyze the actual game or its efficacy in therapy settings. Instead, this paper looks at the WNB critical co-design methodology, outcomes, and its game design to learn lessons for successfully developing games as therapy.

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- 11 Clark, Christina/Teraveinen-Goff, Anne: "National Literacy Trust Research Report: Children and young people's reading in 2019", March 2020, <https://literacytrust.org.uk/research-services/research-reports/children-and-young-peoples-reading-in-2019/>.
 - 12 Writing New Bodies, <https://sites.google.com/ualberta.ca/writingnewbodies>, retrieved October 2021. Initiated by Prof. Astrid Ensslin, co-investigated by Dr. Carla Rice, in collaboration with Dr. Sarah Riley, Christine Wilks, Hannah Fowlie, Megan Perram, Dr. Aly Bailey, and Lauren Munro.
 - 13 DEPRESSION QUEST (Zoë Quinn, Patrick Lindsey, 2013: The Quinnsspiracy).
 - 14 WALLPAPER (Andy Campbell, Judi Alston, 2015: Dreaming Methods).
 - 15 INKUBUS (Andy Campbell, Christine Wilks, 2014: Dreaming Methods)
 - 16 Ensslin, Astrid et al: "Exploring Digital Fiction as a Tool for Teenage Body Image Bibliotherapy," in: *Digital Creativity* 27, 3 (2016), pp. 177-195.
 - 17 Ensslin, Astrid: "Electronic Fictions: Television, the Internet, and the Future of Digital Fiction," in: Paula E. Geyh (Ed.), *The Cambridge Companion to Postmodern American Fiction*, Cambridge: CUP 2017, pp. 181-197.

THE WRITING NEW BODIES PROJECT – A CASE STUDY

The Method. The core method used for data collection is the feminist participatory action research (FPAR). Participatory action research, also known as community-based participatory research, action research, or co-design turns test subjects into collaborators by giving them full control over the data being produced.^{18,19} According to Shira Hassan, PAR is a powerful and highly beneficial method of research, as it:

“[...] allows communities to build collectively with each other to simultaneously do healing and change work while they’re also doing research and because it puts the power and control in the hands of the community so that they can identify what’s important, when it’s important, what we need to get at, how we want to get at it, who we want at the table, and what we’re going to do with the data afterwards.”²⁰

PAR dissolves the boundaries of traditional academic research and puts the participants of a study on the same level as the facilitators. Together, they work towards discussing research problems to find solutions by being inclusive and transformative—in other words, they create a community.^{21, 22, 23} A grounding in feminist theory transforms WNB’s PAR method into Feminist PAR, a method that expresses “core values of empowerment, transformative action and community

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- 18 Macauley, Ann C.: “Participatory research: What is the history? Has the purpose changed?”, *Family Practice* 34 (2017), pp. 256-258.
 - 19 Gustafson, Diana L./Janice E. Parsons/ Brenda Gillingham: “Writing to Transgress: Knowledge Production in Feminist Participatory Action Research” in: *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research* 20 (2019), pp. 1-25.
 - 20 Vera Institute of Justice: “Participatory Action Research,” *YouTube* Video, 0:04, September 27, 2016, <https://www.youtube.com/watch?v=6D492AP9JP4>.
 - 21 D.L. Gustafson: *Writing to Transgress*.
 - 22 Reid, Colleen/Allison Tom/Wendy Frisby: “Finding the ‘action’ in feminist participatory action research”, In: *Action Research* 4 (2006), pp. 315-332.
 - 23 Gatenby, Bev/Humphries, Maria: “Feminist Participatory Action Research: Methodological and ethical issues”, In: *Women's Studies International Forum* 23 (2000), pp. 89-105.

engagement.”²⁴, ²⁵ Based on this research method, four workshops were initiated to collect the data for the digital fiction bibliotherapy between April and May of 2019.

The Participants. The participant pool comprises of 21 women and female-identified individuals ages 18-25 across four two-day-workshops in the three Canadian cities of Toronto, Edmonton, and Guelph. All participants were selected through a screening test prior to the data collection workshops. The selected participants are representative for the following relevant characteristics: gender identity, sexual orientation, racial identity, physical disability, psychiatric disability, body image concerns, disordered eating, and body size. This participant demographic assures a more diverse, inclusive, and appealing digital fiction.

The Workshops. The data was primarily collected with up to three audio recorders. The participants were guided and introduced to the topic of BDD and narrative game design by the leading facilitators of the specific workshop. Presentations and group discussions grounded the contextual knowledge about the common issues and terminologies. Afterwards, these presentations were discussed with the participants. Another method for actively engaging participants were several creative prompts for character and story development. To transform developed characters into stories, creation sessions using the open-source tool for interactive storytelling Twine was used.²⁶ On the second day of the workshops, participants were also engaged in guided meditations. A trained instructor led the participants on a journey of mindfulness to help them explore their bodies within a safe space. Subsequently, the participants shared how they envisioned their bodies and their individual spaces.

The Results. The approximately 57 hours of audio data were fully transcribed as a preparation step for a qualitative analysis with the MAXQDA software program. The analysis revealed six common themes and topics: health, affect-oriented, identity, embodiment, narrative themes, and technologies and their attributes as can be seen in Table 1 below.

24 D.L. Gustafson: *Writing to Transgress*.

25 Singh, Anneliese A./Kate Richmond/Theodore R. Burnes: “Feminist Participatory Action Research with Transgender Communities: Fostering the Practice of Ethical and Empowering Research Designs”, In: *International Journal of Transgenderism* 14 (2013), pp. 93-104.

26 Worth mentioning is that participants even learned new skills on how to use the online platform Twine and gained insights into the game design process.

Table 1: List of thematic findings and their attributes.

Themes	Attributes
Health	Illness, Eating, Disorders, Depression
Affect-Oriented	Femininity/Gender Roles, Social Media, Beauty, Standards, Space, Support, Resistance, Empowerment, Privilege, Sexual Assault, Self-Hate
Identity	Race, Sexuality, Disability, Queerness, Digital Identity, Trans Identity, Indigeneity, Cis Identity
Embodiment	The Body, Weight, Body Parts, Clothing
Narrative Themes	The Gaze, Digital Fictions, Character, Direct Themes, Nonlinear/Rhizomatic/Looping, The Mother, The Father
Technologies	Smartphones, Tablets

THE CRITICAL CO(GAME)-DESIGN

With these six categories and participant input (their Twines, written narratives, and discussions), the WNB project will enter Phase 2 where the DF will be developed. Analogous to almost every game design process, knowing the target development platform of a project is a crucial starting point because the technology behind it enables or limits possibilities.^{27, 28} The participants voiced their preference for smartphones and downloadable apps. To address these preferences, the final DF will be developed as a web-based game to allow for maximum accessibility on a spectrum of devices.

From there, an interactive prototype will be developed as a proof of concept before settling and developing final features, settings, stories, and characters. Based on their FPAR participant data, the WNB team decided on abstract protagonists and antagonists to avoid embodied characters and to help players feel more

27 Bates, Bob: *Game Design*. Boston: Premier Press 2004 (2. ed).

28 Schell, Jesse: *The Art of Game Design. A Book of Lenses*. Boca Raton, London, New York: CRC Press 2015 (2. ed).

represented. The facilitators value having something the players can connect to their real-life experiences within a world of possibilities. Therefore, the game genre will be: beautiful body horror and magical realism. With this, WNB's designer Christine Wilks is currently developing the final game that is set to have an alpha and beta phase during which the participants will be involved once again to express their feedback before the game is pushed for a release to web at some point in 2022.²⁹

To summarize, the WNB game design process is not different from what Bates or Schell have said about the video game development industry.^{30, 31} However, the WNB team shows the power of research- and community-based development by using FPAR and by working with participants as co-designers. The quality of the final game will reflect their design process. It is clear how every aspect of the game, from genre choice to setting, is chosen to give the player a highly individualized, sandbox-like space where they can project their BDD-related traumas and engage in what-if scenarios. In the safe space of the game, the player has full control over deconstructing their own issues, exploring different options, and potentially finding solutions.³² Ultimately, the feeling of freedom that is so important for game design is represented in the game and play experience.

Unfortunately, the full extent of this new digital form of bibliotherapy on patients cannot be evaluated before the game releases. However, Sukamto's research on interactive therapy suggests that both interactive (significance = $0.000 < 0.05$) and reading bibliotherapy (significance = $0.012 < 0.05$) are effective methods that reduce BDD issues among high school girls.³³

Implications for further research. From a professional user researcher perspective, the FPAR method as initiated for the WNB game design process shows that it is possible to engage with your players early in the design process and together create a product that appeals to them. Obviously, the scalability of such user-centered approaches to large video game studios remains unclear, but this study certainly presents an avenue of possibilities.

29 *Writing New Bodies*.

30 B. Bates: *Game Design*.

31 J. Schell: *The Art of Game Design*.

32 Green, Melanie C./Keenan M. Jenkins: "Interactive Narratives: Processes and Outcomes in User-Directed Stories," in: *Journal of Communication* 64 (2014), pp. 479-500.

33 Sukamto, Monique E.: "The Effectiveness of Bibliotherapy in Reducing Body Image Dissatisfaction Among High School Girls", In: *Anima. Indonesian Psychological Journal* 24 (2008), pp. 33-37.

For the therapeutic setting, the project dares to ask to what extent Feminist Participatory Action Research could constitute its own form of therapy, and calls game researchers to explore further alternative game design methods by including players in the design process.³⁴

CONCLUSION

The goal of this paper was to explore the methods, outcomes, and the game design of WRITING NEW BODIES to derive lessons for steering game development towards research-based, therapeutical areas. WNB successfully shows how game design for such settings starts with the research method. The feminist participatory research method transformed participants into co-game designers and vital players of iterative design thinking that allowed them to critically reflect on all steps of the research process. Furthermore, DF is an ideal genre to create narrative-driven games that deal with difficult topics such as depression, suicide, war, and body image issues in a safe and appropriate way. Additionally, DF is easy to learn and develop (for instance, with the open-source platform Twine) and it appeals to younger audiences given the interactive nature of the platform. This alone makes DF a worthy asset for game design. The evolution of game design—first for entertainment purposes, then for critical and artistic purposes, and now for therapeutic purposes—is still in its early stages. If the WNB’s DF can confirm positive outcomes in its patients, it will certainly bridge the gap between academic and industry research.

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34 Panic-Cidic, Natali: *From Immersion to Attention in AAA-Games. A Cognitive-Empirical Approach to Player Experience*. Unpublished dissertation, Aachen 2020.

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