

# GAMES

By mindfully playing with games, Sandra Danilovic disrupts the way we think of games and play: opening a new generous space of the imagination to grapple with the complex issues of illness, disability, health disparity, and care. This book offers a rich, compassionate resource for anyone struggling with the human realities of health in our society.

—*Jutta Treviranus*

**Director, Inclusive Design Research Centre (IDRC) Professor,  
Faculty of Design, OCAD University**

Sandra Danilovic is the rarest of combinations: a scientist and a magician – with a munificent heart. In this essentially important book, she shows us how digital games can extend to realms of art, healing, and the deepest levels of human experiences. This book is literally a game changer.

—*Laura Arpiainen*

**Professor, Health and Wellbeing Architecture  
Aalto University**

# ARTS FOR HEALTH

**Series Editor:** Paul Crawford, Professor of Health Humanities, University of Nottingham, UK

The *Arts for Health* series offers a ground-breaking set of books that guide the general public, carers and healthcare providers on how different arts can help people to stay healthy or improve their health and wellbeing.

Bringing together new information and resources underpinning the health humanities (that link health and social care disciplines with the arts and humanities), the books demonstrate the ways in which the arts offer people worldwide a kind of shadow health service – a non-clinical way to maintain or improve our health and wellbeing. The books are aimed at general readers along with interested arts practitioners seeking to explore the health benefits of their work, health and social care providers and clinicians wishing to learn about the application of the arts for health, educators in arts, health and social care and organizations, carers and individuals engaged in public health or generating healthier environments. These easy-to-read, engaging short books help readers to understand the evidence about the value of arts for health and offer guidelines, case studies and resources to make use of these non-clinical routes to a better life.

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Emerald Publishing Limited  
Emerald Publishing, Floor 5, Northspring, 21-23 Wellington Street,  
Leeds LS1 4DL.

First edition 2024

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**British Library Cataloguing in Publication Data**

A catalogue record for this book is available from the British Library

ISBN: 978-1-80043-597-1 (Print)  
ISBN: 978-1-80043-594-0 (Online)  
ISBN: 978-1-80043-596-4 (Epub)



INVESTOR IN PEOPLE

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## FOREWORD: CREATIVE PUBLIC HEALTH

The *Arts for Health* series aims to provide key information on how different arts and humanities practices can support, or even transform, health and wellbeing. Each book introduces a particular creative activity or resource and outlines its place and value in society, the evidence for its use in advancing health and wellbeing, and cases of how this works. In addition, each book provides useful links and suggestions to readers for following-up on these quick reads. We can think of this series as a kind of shadow health service – encouraging the use of the arts and humanities alongside all the other resources on offer to keep us fit and well.

Creative practices in the arts and humanities offer a fantastic, non-medical, but medically relevant way to improve the health and wellbeing of individuals, families, and communities. Intuitively, we know just how important creative activities are in maintaining or recovering our best possible lives. For example, imagine that we woke up tomorrow to find that all music, books, or films had to be destroyed, learn that singing, dancing, or theatre had been outlawed or that galleries, museums, and theaters had to close permanently; or, indeed, that every street had posters warning citizens of severe punishment for taking photographs, drawing, or writing. How would we feel? What would happen to our bodies and minds? How would we survive? Unfortunately, we have seen this kind of removal of creative activities from human society before and today many people remain terribly restricted in artistic expression and consumption.

I hope that this series adds a practical resource to the public. I hope people buy these little books as gifts for family and friends,

or for hard-pressed healthcare professionals, to encourage them to revisit or to consider a creative path to living well. I hope that creative public health makes for a brighter future.

Professor Paul Crawford

## ACKNOWLEDGMENTS

Writing this book could not have been possible without the generous support of several remarkable individuals and entities.

I express my profound gratitude to Paul Crawford, who as editor of the series *Arts for Health*, offered me the opportunity to write about games. I am truly honored to be part of the esteemed group of authors and scholars in this series.

I would like to acknowledge Wilfrid Laurier University, Office of Research Services for supporting me with a financial grant and course releases that facilitated the completion of this book. I am particularly grateful to Lauren Eisler and notably, Bruce McKay, for their unwavering support and mentorship. I would like to acknowledge Tracy Woodford, the Research Project Coordinator at the Faculty of Human and Social Sciences at Laurier, as an unsung heroine. She has been instrumental in assisting me with numerous administrative tasks.

I am eternally thankful to my developmental editor and miracle worker, Karen Dewart McEwen, for her invaluable feedback on how to improve the manuscript. I would like to thank Jutta Treviranus who is a role model, for inspiring me to believe in my convictions. My deep gratitude also extends to my two student research assistants, Rebecca Schwarz, and Lucas Leprince for their vital assistance in researching this book.

Ultimately, I could not have written this book without the resolute spiritual and emotional support and encouragement of my family, my sister, Iva Danilovic, and my dearest colleagues and friends, Nadine Boljkovac and Hervé Saint-Louis.

A final thanks to all the game artists and game designers who make courageous, weird, and expressive games about their life experiences with illness and disability—this book cannot exist without your creative innovations and visionary talent.

# GAMES FOR CREATIVE HEALTH

## WHY GAMES?

*That Dragon, Cancer* (Green et al., 2016) is a digital game about the profound grief and loss of losing a young child to cancer. This autobiographically inspired game is rooted in the developers' own life experience of seeing their young son struggle with this disease. The game offers the player 13 vignettes detailing the trajectory of cancer as experienced by this family from initial symptoms, diagnosis, treatment, end-of-life diagnosis, palliative care, and finally, death. It also integrates the perspectives, flashbacks, and internal monologues of Joel's father, Ryan, and his mother, Amy. *That Dragon, Cancer* is a visually arresting game with a bold palette of neon colors acting as a counterpoint to the dark and somber narrative. The game builds a moody player experience, alternating between themes of hope and despair, with religious, Biblical references reflecting on the role that faith plays in illness experiences. For example, Amy's voice-over narration captures her hope that her son Joel will survive and "beat" cancer; by contrast, Ryan's realist perspective expresses his desire to come to terms with his son's inevitable death.

As the player of this game, I was immersed in this couple's emotionally fraught journey of losing a son to terminal illness at such a young age and struggling to come to peace with it. *That Dragon, Cancer* does not offer a "victory or defeat" narrative in the sense

of overcoming or succumbing to illness as some illness narratives do. The game is a point-and-click interactive experience inviting the player to deeply explore the pain and catharsis its creators experienced.

*That Dragon, Cancer* is my way of introducing the reader to how games can speak deeply to life experiences of health, illness, and even death. I suspect that the reader might think: Aren't games supposed to whisk us away to a magical world of fun and fantasy and distract us from reality? Why would we want to confront the challenges or hardships of terminal illness when playing a game?

These are questions I try to answer throughout this book.

Games like *That Dragon, Cancer* are especially challenging to play because we are not quite used to the idea that games are the appropriate medium for expressing difficult, existential topics such as illness and death. In this sense, *That Dragon, Cancer* is a watershed game that raises a fundamental paradox underlying this genre – games are supposed to be fun, not deeply serious or bleak. In the popular imagination, illness and death are “unplayable” and ought to be treated as serious topics of reflection. But these ideas applied to games are a misconception. Like all forms of art, including painting, literature, theater, and film, games can indeed investigate living with or dying from illness, shift thinking, and shape new meaning around health and illness. In other words, games are not always tools of distraction from pain or discomfort; they can be tools of deep reflection about the human condition. Games like *That Dragon, Cancer* invoke the human struggle for meaning and purpose when confronted with illness and death. In this way, games can be cathartic for understanding our struggles with health and illness, and life and death.

In this book, I provide a new paradigm of thinking about games as an art form that helps us reflect on, understand, and communicate lived experiences about illness and disability. I hope to show how games can transform healthcare practices beyond the clinic or hospital in the way we care for ourselves, each other, and our fellow humans. As such, I argue that games have a pivotal role to play in how we understand health and practice healthcare – how we care for others that transcend the physical body, encompassing

mental health and the environmental and social conditions that shape health outcomes. This new paradigm differs from existing ways of understanding the relationship between games and health as geared to purely clinical applications or as game-based therapeutic interventions. It re-conceives games and gaming as profoundly creative and prosocial forms of self-expression for cultivating empathy and raising awareness about the healthcare experiences of underserved, marginalized, and high-risk communities. But, before I delve into this new paradigm, I provide a brief overview of the nexus of games and culture, which is complicated, to say the least. This overview is important to tease out the cultural assumptions surrounding games and why games are an exciting new artistic medium for telling stories about health and illness.

### THREE CATEGORIES OF GAMES

There are, broadly speaking, three categories of games that are germane to understanding the relationship between games and health. Unpacking these categories is important to examine our assumptions about games – again, we often do not think of games as an art form, let alone a tool for supporting health. In the first category, mainstream, big-budget video games are a billion-dollar industry surpassing other mass forms of entertainment, but a category that has been stigmatized as a morally bankrupt form of entertainment. In shooter game series such as *Call of Duty* (Activision, n.d.), “killing” your opponent and/or shooting as many targets as possible is the main objective of the game, bringing about a winning outcome for the player. Public discourse has underscored the social harm these games might inflict, especially on youth and young adults. However, psychologists who study the relationship between video games and violence argue that the assumption that shooter games cause violence and aggression in youth is a moral panic and *not* supported by scientific evidence (Ferguson & Colwell, 2020; Smith et al., 2018).

Regarding the unfavorable perception of games, there are casino games such as slot machines, card games (i.e., *Blackjack*), and games of chance (i.e., *Roulette*) which are associated with

gambling addiction (Sohn, 2023). Wildly popular casual games such as *Candy Crush Saga* borrow addictive mechanisms from casino slot machines (Stuart, 2014) and can be found on mobile phones that people play on the bus or when fighting boredom. No wonder games are still tainted in the public mind; in fact, game scholars have given voice to this stigmatized image of games as “an ugly gutter culture” (Simon, 2017, p. 617).

In the second category, the emergence of “art and indie games” has become an effective foil to mainstream video games, ushering in a new understanding of video games as prosocial forms of art and storytelling. Art and indie (independent) games are a category that offers game mechanisms, narratives, characters, and player experiences excluded from mainstream video games. In this category, autobiographical games, point-and-click adventure games, interactive fiction, walking simulators, experiential games, and cooperative games are a strong counterpoint to combat-centric, competitive video games. In other words, art and indie games are refurbishing the tainted public image of video games as harmful to society.

In the third category, serious games are a broad category of games whose purpose transcends entertainment and can be found in fields as diverse as the military, aviation, and healthcare education. For example, the military has long used “war games” or military simulations to work out war strategy and train soldiers (Lenoir & Lowood, 2005, p. 428). The game of Chess is one of the most well-known war strategy games (Winter, 2002). Flight simulators are used by pilots to learn how to fly planes. Like aviation, healthcare is considered a high-risk profession where medical simulations can be useful to train and teach medical students before they work with actual patients in clinics and hospitals. Simulation, in broad terms, is a re-enactment of a real-world process used to facilitate experiential learning and achieve learning outcomes (Al-Elq, 2010). Games *are* simulations in that they simulate scenarios that the player navigates and interacts with in real time.

As I discuss in Chapter 2, traditional games for health are a broad category that includes medical simulations, games for exercise, games for rehabilitation and disease management, games

for health behavior change, games for cognitive health, games for nutrition, and games for health literacy. Games for health are highly instrumental in that their value is judged according to their measurable therapeutic, clinical, or assistive applications in clinical practice. The public, however, does not usually have access to playing or making these games for health because they are often made and accredited for specialized audiences such as medical students, medical researchers, and study participants enrolled in medical studies and trials. As such, their exclusionary status is a barrier.

But also, when games are only used as therapeutic aids for motivation or distraction or as health management devices, their creative resources are not truly appreciated. This is where the health humanities can make a significant contribution to the evolving field of games for health and reimagine games as vehicles of cultural education that contribute to a more comprehensive and prosocial understanding of health and wellbeing. This idea brings me to a fourth and new category of digital games which I give voice to in this book.

#### A FOURTH CATEGORY: GAMES FOR CREATIVE HEALTH

In the last decade or so, a grassroots movement has been growing – independent creators, game hobbyists, creative programmers, game artists, and everyday people have harnessed digital games as creative tools of health and wellbeing outside of conventional medicine. They have harnessed digital games as vehicles of self-expression, sense-making, empathy, community building, and social change in ways that empower communities. Set in motion by the Do-It-Yourself revolution of personal computing, these games have opened game-making to everyone, irrespective of skill, expertise, or socioeconomic status. That is, these games were not made with expensive tools and expert developer teams. They were made at home by self-trained game designers who creatively experimented with open-source, free, partially free, or other paid but easy-to-use software tools such as browser-based *Twine* (Klimas, 2023), *Bitsy* (Le Doux, n.d.), *RPG Maker VX* (Enterbrain, n.d.), and *Unity* (Unity Technologies, n.d.).

These DIY game-makers reinvented video games as a new interactive art form for conveying healthcare narratives. The emergence of autobiographical games about illness, trauma, and disability has catapulted video games in a new direction and redefined what games are about and what they can do. In the realm of personal and public health, this new purpose of digital games speaks to their potential for both self-care and to also give healthcare practitioners unique insights into lived experiences while introducing the potential for health policy innovation through co-design with marginalized communities.

I introduce this fourth category as “games for creative health,” a dynamic art technology at the nexus of health, society, and culture. It is informed by Paul Crawford et al.’s (2020) idea of “creative public health” as an inclusive, democratic, and dynamic approach to understanding the interconnectedness between health, the arts, society, and culture. The term “creative health” is also inspired by gerontologist Anne Basting’s (2020) term “creative care” who coined it to convey the healing power of theater, storytelling, and performance for dementia patients in long-term care homes. Basting harnessed artistic techniques from improvisational theater to engage and empower dementia patients in ways that conventional clinical practice could not achieve. But also, I would like the reader to know that this book is written from an artist’s perspective as opposed to a clinician’s perspective. This is important because I have a different way of looking at games for health that is rooted in my artistic practice exploring my own lived experiences with illness and health (Danilovic, 2009). It is a different way of thinking about games for health that transcends their common instrumentalist understanding as clinical aids or health management tools: to think about games as an art technology that sheds light on environmental and sociocultural factors shaping health outcomes. These social health determinants include income, social status, working conditions, housing, education and literacy, childhood experiences, physical environments, access to health services, gender, culture, and race, all of which influence health outcomes and contribute to health inequalities (*A Framework for NHS Action on Social Determinants of Health – The Health Foundation*, 2023; Government of Canada, 2023).

Put differently, games for creative health are founded on esthetic, educational, and prosocial principles rather than serving clinical objectives. Consequently, games for creative health are not medical simulations or therapeutic aids in healthcare contexts. The digital games about illness, trauma, and disability that I champion in this book are also not accredited by health agencies. This lack of accreditation is both a strength and a limitation. In other words, these games are not accredited tools of therapy, health intervention, or even health promotion. Their strength, however, lies in their capacity as vehicles of self-expression and in their ability to raise awareness about the complexities of *living with* illness and disability while being broadly accessible to the public.

As such, I underscore the potential of games for creative health to engender critical conversations about healthcare systems, build empathy between healthcare practitioners, informal caregivers, and patients, communicate lived experiences of illness and disability, and transform healthcare practices in ways unaccounted for in existing games for health frameworks. Games for creative health include making and playing games that support the mental health of their designers, autobiographical games, experimental games, interactive storytelling, and game-maker practices such as game jams – game design hackathons and workshops – that empower marginalized communities to become agents and advocates of their health and wellbeing. In this book, I also limit my analysis to digital games that are meant to be played on the computer or online because these platforms are becoming the new frontier for the expression of healthcare narratives in non-clinical contexts. They are also easy to share and play online in contrast to board, tabletop, and card games and live-action role-playing games that must all be played in person.

## BACKGROUND: WHAT ARE GAMES AND PLAY?

Any meaningful understanding of “games for creative health” involves complicating assumptions about what games and play are. Games about illness and disability such as *That Dragon, Cancer*, and other similar games that I discuss in upcoming chapters, have

generated intense debate in games culture and social media around the question of “what is a game” (Berman, 2014). This is because, as I mentioned previously, games and play are supposed to distract us from serious and heavy topics. What is the difference between games and play? They overlap, because we play games, after all. But there is a key difference between games and play that I want to stress, especially concerning the idea behind *making* games for creative health that I want the reader to come away with.

Strictly speaking, games simulate a conflict defined by a system of rules leading to a measurable result for the player (Salen & Zimmerman, 2003). As ruled systems, games are a form of regulated play. Games also quantify the player’s progress as a number displayed on a counter, a health bar, or some other form of measurement, which has implications for games for creative health in how we monitor player progress or give feedback to players. Given that this definition of a game is a strict one, there are more flexible ways to define a game that applies to the autobiographical games about illness and disability I discuss in this book.

For example, not all games provide a win–lose or measurable outcome for the player. Most often, being able to perform actions in a game is meaningful for the player. Players perform *actions* to progress in the game (Aarseth, 1997) which contrasts with how we experience spectator-based media such as film and video. The actionable features of games are significant for games for creative health because they carry a rhetorical power to immerse the player in experiences of illness and health; and they also give control to the player or take it away to express ideas about illness and health, as I discuss in Chapter 7. Performing actions in a game also translates to the ability to role-play, like an actor in a film or on the stage. A player adopts an avatar that is either invisible and stands in for the player or a visible avatar that represents a scripted game character created by the game developers. Role-playing in a game can be a powerful modality for imparting a deeper understanding of what it means and feels like to live with illness, and be a patient, a caregiver, a care provider, and so forth.

Now, what is play, and why does it matter to games for creative health? Dutch historian Johan Huizinga (1949) defined play as a