

Nick Ballou

Behavioural Data Science 🎮 Media Psychology 📱 Digital Wellbeing

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Academic Positions

2023– **Postdoctoral Researcher**

- Group: Digital Wellbeing Lab led by **Professor Andrew Przybylski**
- Topic: Video games' effects on mental health, using digital trace data
- Open source and industry-partnered (e.g., Nintendo & Xbox) data collection

Oxford Internet Institute
University of Oxford

Education

2023 **PhD in Intelligent Games & Game Intelligence, *no corrections***

- **Thesis:** The Basic Needs in Games (BANG) Model of Video Games and Mental Health
- Supervisors: Dr Laurissa Tokarchuk, Dr David Zendle, and Prof Sebastian Deterding

Queen Mary
University of London

2018 **MPhil in Applied Linguistics, *with distinction***

University of Cambridge

2016 **BS in Linguistics, *magna cum laude***

Tulane University






Skills

Statistical Programming	R, Quarto, GL(M)Ms, Monte Carlo simulation, data visualization
Behavioural Data Science	Digital trace data, user analytics, predictive modelling, longitudinal data
Media effects	Displacement, player experience, self-determination theory, disordered gaming
Research Methods	Causal inference, qualitative, quantitative, secondary data use
Open Science	Open data/materials/code, preregistration, questionable research practices, open access

Publications




An up-to-date record is always available at [Google Scholar](https://scholar.google.com/citations?user=8jGgGgGgGg). All my articles are available open access by clicking the  icons.

Journal Articles

- 2025 **Ballou N**, Hakman T, Vuorre M, Magnusson K & Przybylski AK.
How Do Video Games Affect Mental Health? A Narrative Review of 13 Proposed Mechanisms.
Technology, Mind, and Behavior, [10.1037/tmb0000152](https://doi.org/10.1037/tmb0000152). 
- 2025 **Ballou N**, Vuorre M, Hakman T & Przybylski AK.
Perceived Value of Video Games, but Not Hours Played, Predicts Mental Well-Being in Casual Adult Nintendo Players.
Royal Society Open Science, [10.1098/rsos.241174](https://doi.org/10.1098/rsos.241174). 
- 2025 Mansfield KL, Ghai S, Hakman T, **Ballou N**, Vuorre M & Przybylski AK.
From Social Media to Artificial Intelligence: Improving Research on Digital Harms in Youth.
The Lancet Child & Adolescent Health, [10.1016/S2352-4642\(24\)00332-8](https://doi.org/10.1016/S2352-4642(24)00332-8). 
- 2024 **Ballou N**, Denisova A, Ryan R, Rigby CS & Deterding S.
The Basic Needs in Games Scale (BANGS): A New Tool for Investigating Positive and Negative Video Game Experiences.
International Journal of Human-Computer Studies, [10.1016/j.ijhcs.2024.103289](https://doi.org/10.1016/j.ijhcs.2024.103289). 
- 2024 **Ballou N** & Deterding S.
The Basic Needs in Games Model of Video Game Play and Mental Health.
Interacting with Computers, [10.1093/iwc/iwae042](https://doi.org/10.1093/iwc/iwae042). 
- 2024 **Ballou N**, Sewall CJR, Ratcliffe J, Zendle D, Tokarchuk L & Deterding S.
Registered Report Evidence Suggests No Relationship Between Objectively-Tracked Video Game Playtime and Wellbeing Over 3 Months.

- Technology, Mind, and Behavior*, [10.1037/tmb0000124](https://doi.org/10.1037/tmb0000124). 
- 2024 Vuorre M, **Ballou N**, Hakman T, Magnusson K & Przybylski AK.
Affective Uplift During Video Game Play: A Naturalistic Case Study.
Games: Research and Practice, [10.1145/3659464](https://doi.org/10.1145/3659464). 
- 2023 **Ballou N**.
A Manifesto for More Productive Psychological Games Research.
Games: Research and Practice, [10.1145/3582929](https://doi.org/10.1145/3582929). 
- 2023 Zendle D, Flick C, Gordon-Petrovskaya E, **Ballou N**, Xiao LY & Drachen A.
No Evidence That Chinese Playtime Mandates Reduced Heavy Gaming in One Segment of the Video Games Industry.
Nature Human Behaviour, [10.1038/s41562-023-01669-8](https://doi.org/10.1038/s41562-023-01669-8). 
- 2023 Zendle D, Flick C, Halgarth D, **Ballou N**, Cutting J & Drachen A.
The Relationship Between Lockdowns and Video Game Playtime: Multilevel Time-Series Analysis Using Massive-Scale Data Telemetry.
Journal of Medical Internet Research, [10.2196/40190](https://doi.org/10.2196/40190). 
- 2023 Zendle D, Flick C, Halgarth D, **Ballou N**, Demediuk S & Drachen A.
Cross-Cultural Patterns in Mobile Playtime: An Analysis of 118 Billion Hours of Human Data.
Scientific Reports, [10.1038/s41598-022-26730-w](https://doi.org/10.1038/s41598-022-26730-w). 
- 2022 **Ballou N** & Zendle D.
“Clinically Significant Distress” in Internet Gaming Disorder: An Individual Participant Meta-Analysis.
Computers in Human Behavior, [10.1016/j.chb.2021.107140](https://doi.org/10.1016/j.chb.2021.107140). 
- 2021 **Ballou N** & Van Rooij AJ.
The Relationship between Mental Well-Being and Dysregulated Gaming: A Specification Curve Analysis of Core and Peripheral Criteria in Five Gaming Disorder Scales.
Royal Society Open Science, [10.1098/rsos.201385](https://doi.org/10.1098/rsos.201385). 
- 2021 Vuorre M, Zendle D, Petrovskaya E, **Ballou N** & Przybylski AK.
A Large-Scale Study of Changes to the Quantity, Quality, and Distribution of Video Game Play during a Global Health Pandemic.
Technology, Mind, and Behavior, [10.1037/tmb0000048](https://doi.org/10.1037/tmb0000048). 
- 2020 Zendle D, Meyer R & **Ballou N**.
“The Changing Face of Desktop Video Game Monetisation: An Exploration of Trends in Loot Boxes, Pay to Win, and Cosmetic Microtransactions in the Most-Played Steam Games of 2010-2019”.
PLOS ONE, [10.1371/journal.pone.0232780](https://doi.org/10.1371/journal.pone.0232780). 
- 2020 Zendle D, Meyer R, Cairns P, Waters S & **Ballou N**.
“The Prevalence of Loot Boxes in Mobile and Desktop Games”.
Addiction, [10.1111/add.14973](https://doi.org/10.1111/add.14973). 

Conference Papers

- 2024 Kao D, **Ballou N**, Gerling K, Breitsohl H & Deterding S.
How Does Juicy Game Feedback Motivate? Testing Curiosity, Competence, and Effectance
CHI '24 Conference on Human Factors in Computing Systems, [10.1145/3613904.3642656](https://doi.org/10.1145/3613904.3642656). 
- 2023 **Ballou N** & Deterding S.
‘I Just Wanted to Get It Over and Done With’: A Grounded Theory of Psychological Need Frustration in Video Games
CHI PLAY '23 Symposium on Computer-Human Interaction in Play, [10.1145/3611028](https://doi.org/10.1145/3611028). 
- 2023 **Ballou N**, Zendle D, Cutting J & Gordon-Petrovskaya E.
Four Grand Challenges for Video Game Effects Scholars: How Digital Trace Data Can Improve the Way We Study Games
ICA '23: International Communication Association, [10.31234/osf.io/ua6nr](https://doi.org/10.31234/osf.io/ua6nr). 
- 2023 Park S et al.

Learnings from the Case Maple Refugee: A Story of Free-to-Play, Probability, and Gamer Consumer Activism

DiGRA '23. [📄](#)

- 2022 **Ballou N**, Deterding S, Iacovides I & Helsby L.
Do People Use Games to Compensate for Psychological Needs During Crises? A Mixed-Methods Study of Gaming During COVID-19 Lockdowns
CHI '22 Conference on Human Factors in Computing Systems, [10.1145/3491102.3501858](#). [📄](#)
- 2022 **Ballou N**, Gbadamosi C & Zendle D.
“The Hidden Intricacy of Loot Box Design: A Granular Description of Random Monetized Reward Features”.
DiGRA '22, [10.31234/osf.io/xeckb](#). [📄](#)
- 2021 **Ballou N**, Breitsohl H, Kao D, Gerling K & Deterding S.
Not Very Effective: Validity Issues of the Effectance in Games Scale
CHI PLAY '21 Extended Abstracts, [10.1145/3450337.3483492](#). [📄](#)
- 2021 **Ballou N**, Warriar VR & Deterding S.
“Are You Open? A Content Analysis of Transparency and Openness Guidelines in HCI Journals”
CHI '21 Conference on Human Factors in Computing Systems, [10.1145/3411764.3445584](#). [📄](#)
- 2021 Ratcliffe J, **Ballou N** & Tokarchuk L.
Actions, Not Gestures: Contextualising Embodied Controller Interactions in Immersive Virtual Reality
Proceedings of the 27th ACM Symposium on Virtual Reality Software and Technology, [10.1145/3489849.3489892](#). [📄](#)

Team Science and Consortia

- 2022 Parsons S, Azevedo F, Elsherif MM & **110 others including Ballou N**.
A Community-Sourced Glossary of Open Scholarship Terms.
Nature Human Behaviour, [10.1038/s41562-021-01269-4](#). [📄](#)
- 2022 Stewart S, Pennington CR & **8 other UKRN leads including Ballou N**.
Reforms to Improve Reproducibility and Quality Must Be Coordinated across the Research Ecosystem: The View from the UKRN Local Network Leads.
BMC Research Notes, [10.1186/s13104-022-05949-w](#). [📄](#)

Pre-prints and Juried Work

- 2025 **Ballou N**, Bowman ND, Hakman T & Przybylski AK.
Reliving 10 Years Old: Descriptive Insights into Retro Gaming.
PsyArXiv, [10.31234/osf.io/wt6yb_v1](#). [📄](#)
- 2025 **Ballou N**, Földes TA, Hakman T & Przybylski AK.
Ill Health and Grief Fuel Gaming, While Lethargy Slows It: Playtime–Wellbeing Confounds from the Player Perspective.
PsyArXiv, [10.31234/osf.io/2v73d_v3](#). [📄](#)
- 2025 Karhulahti VM, Huntington-Klein N & **Ballou N**.
Claims for No Evidence Also Need Evidence.
PsyArXiv, [10.31234/osf.io/n2rka_v3](#). [📄](#)
- 2025 Xiao LY, **Ballou N** & Eben C.
Fundamental Flaws in the Design and Reporting of Chew and Neo (2024).
Trends in Psychology, [10.1007/s43076-025-00486-4](#). [📄](#)
- 2024 **Ballou N**, Földes AT, Hakman T, Vuorre M, Magnusson K & Przybylski AK.
Psychological Wellbeing, Sleep, and Video Gaming: Analyses of Comprehensive Digital Traces [Accepted Stage 1 Programmatic Registered Report].
Peer Community In Registered Reports, [10.17605/OSF.IO/65GA3](#). [📄](#)
- 2023 Xiao LY & **Ballou N**.
Pinpointing the Problem: Providing Page Numbers for Citations as a Crucial Part of Open Science.

PsyArXiv, [10.31219/osf.io/2um67](https://doi.org/10.31219/osf.io/2um67).⁸

- 2022 **Ballou N** et al.
Self-Determination Theory in HCI: Shaping a Research Agenda
CHI '22 Workshop Extended Abstracts, [10.1145/3491101.3503702](https://doi.org/10.1145/3491101.3503702).⁸
- 2022 Zendle D, Cairns P, Meyer R, Waters S & **Ballou N**.
Response to Xiao *et al.*: If Everything Is a Loot Box, Nothing Is.
Addiction, [10.1111/add.15976](https://doi.org/10.1111/add.15976).⁸

Grants

Principal Investigator

- 2024 **£25k** Effects of gaming reduction using actigraphy
Status: Ongoing [↗](#) *Huo Family Foundation*
- 2023 **£10k** Media use and mental health in identity construction
Status: Ongoing [↗](#) *Uni of Oxford*
- 2022 **£3k** For research on data donation and loot boxes
Status: Pokemon Go data donation platform created; manuscript in prep [↗](#) *AFSG*
- 2021 **£6k** For research on logging Xbox play
Status: Published in Technology, Mind & Behavior [↗](#) *Centre for Future Health*

Co-Investigator

- 2023 **£366k** Capturing the Digital Footprints of Video Game Play [ES/Y010736/1]
Status: Ongoing, platform available at <https://gameplay.science/> [↗](#) *ESRC*

Teaching and Service

- 2025 **Master's Supervisor** [↗](#) *Oxford Internet Institute/QMUL*
– • De facto primary supervisor for 4 MSc students (Social Data Science/Game AI)
- 2022 • Scaffolded successful transitions into academic and industry roles
- 2024 **Research Methods and Metascience Instructor** [↗](#) *QMUL Researcher Development*
– • Proposed, designed, and led workshops on research methods and practice
- 2021 • Developed open research skills with PhD students and postdocs across disciplines
- 2024 **Local Network Lead** [↗](#) *UK Reproducibility Network*
– • Responsible for coordinating grassroots open science activities at QMUL
- 2021 • Served on academic misconduct committee

Media Features

My proudest media appearance is a [BBC Ideas](#) short video about my work and gaming history.

Work I've led or contributed to has been featured in written outlets such as [BBC Bitesize](#), [New Scientist](#) [[1](#), [Toronto Star](#), [2](#)], [The Guardian](#), [The South China Morning Post](#) [[1](#), [2](#)], [The Independent](#), [London Standard](#), [Irish Examiner](#), [Perspective Media](#), [GameStar](#), [CS4FN](#), [BGR](#), [Inside Hook](#), [PC Gamer](#), [PC Games Insider](#), [Science X](#), [Scientas NL](#), and [PsyPost](#) [[1](#), [2](#), [3](#)].

I've been interviewed for live news, video, and audio outlets including [Al Jazeera](#), [Children and Screens](#), [Pixel Parenting](#) [[1](#), [2](#)], [TRT World](#), the [Vol Breakfast Show](#), and [Play Aid](#).