Report from Dagstuhl Perspectives Workshop 25102

The Future of Games in Society

Anders Drachen*[1], Johanna Pirker*[2], and Lannart E. Nacke*[3]

1 University of Southern Denmark – Odense, DK. adrac@mmmi.sdu.dk
2 TU München, DE. johanna.pirker@tugraz.at
3 University of Waterloo – Stratford, CA. lennart.nacke@uwaterloo.ca

Abstract

The *Dagstuhl Perspectives Workshop 25102: The Future of Games in Society*, addressed the growing disconnect between gaming's massive global influence – reaching over four billion players in a $230+ billion industry – and its unrealized potential for societal benefit. While digital games drive technological innovation in, for example, AI, data science, and HCI, and serve as social infrastructures and educational tools, the field faces significant challenges including exploitative monetization, health concerns, and a widening academia-industry gap, that limits research impact. This extends to public policy, where games research is not serving the public interest. This interdisciplinary workshop convened stakeholders to develop strategic directions that realign gaming's influence with societal imperatives, and to establish a bold vision for the future role of games in society. The initiative established a number of key priorities, notably: 1) Ensuring that games promote and facilitate human flourishing; designing games that promote mental health and wellbeing and that promote inclusive online communities. 2) Realizing the potential of educational games to transform education; such as embedding evidence-based learning in education systems. 3) Building sustainable, large-scale research infrastructure, thus enabling industry-academia-policymaker collaboration. Furthermore, utilizing the scale of games for large-scale behavioural research. 4) Developing standardized evaluation frameworks. Enhancing the rigour, assessment, evidence, and knowledge generated from games research and mobilizing this to ensure the positive impact of games on society. This Dagstuhl Perspectives Workshop aimed to unify fragmented efforts into a coherent agenda so that digital games realize their potential as instruments of meaningful societal benefit in our increasingly digital world.

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1 Executive Summary

Anders Drachen (University of Southern Denmark – Odense, DK, adrac@mmmi.sdu.dk)
Johanna Pirker (TU München, DE, johanna.pirker@tugraz.at)
Lennart E. Nacke (University of Waterloo – Stratford, CA, lennart.nacke@uwaterloo.ca)

The full list of participants is included at the end of this document. This document is a collection of the thoughts and writings of all participants.

Digital games engage over four billion individuals globally, accounting for more than a trillion hours of play annually. This activity underpins a $230+ billion industry and sustains a dynamic, cross-disciplinary field of academic inquiry. Games now operate as social infrastructures, educational tools, and platforms for citizen science. Yet this broadening role brings significant challenges, including concerns around physical and mental health, exploitative monetization models, and contested public narratives about gaming's value.

Gaming continues to drive technological innovation in areas such as artificial intelligence (AI), data science, and human-computer interaction (HCI). Early academic work identified the transformative potential of games to support education, foster social bonds, and enable personalized digital experiences.

However, many of these ambitions remain unrealized. Issues such as predatory monetization and problematic play have come to dominate discourse, overshadowing the field's more constructive capacities. At the same time, research leadership has increasingly shifted from academia to industry, widening the gap between the two despite overlapping expertise. The resource asymmetry limits academia's ability to scale initiatives aimed at producing broader societal benefits. While recent policy frameworks from the EU, UK, and UN have articulated clear expectations for the societal contribution of games, the research community has yet to deliver a coordinated response.

The *Dagstuhl Perspectives Workshop 25102: The Future of Games in Society*, sought to address this gap by formulating strategic directions for both academic policy and industry actors. Our goal was to realign the scale and influence of gaming with emerging societal imperatives. The workshop employed a cross-disciplinary structure, organizing participants into focused working groups tasked with producing actionable strategies to inform future developments across research, practice, and policy.

The digital gaming ecosystem is approaching a pivotal moment. By convening a broad coalition of stakeholders, one can leverage the medium's vast cultural and technological reach while confronting its pressing challenges. The related manifesto will seek to unify currently fragmented efforts into a coherent and strategic agenda that benefits players, researchers, developers, and society as a whole.

Through this initiative, we reaffirm our commitment to ensuring that digital games realize their potential as instruments of meaningful and lasting societal benefit in an increasingly digitized world. We also establish the following key priorities for the future of games in society (these cut across the nine themes of the seminar):

1. **Design for human flourishing:** Ensuring games promote and facilitate human flourishing and designing games that promote mental health and wellbeing and create inclusive online communities and digital environments. This includes creating games that explicitly promote psychological well-being and prosocial behavior, grounded in robust research

and guided by ethical design principles. It also involves implementing proactive design strategies to combat the harms of games, e.g., to reduce toxic behavior.

2. **Realizing the potential of educational games to transform education:** Integrating games into formal curricula through evidence-based design, teacher training, and rigorous evaluation to enhance student engagement and educational outcomes.
3. **Establish sustainable research infrastructure at scale:** Building sustainable, large-scale research infrastructure, which enables industry-academia-policymaker collaboration but also provides the evidence needed to drive good policymaking in games and beyond. Furthermore, utilize the scale of games for large-scale behavioural research. This also involves creating shared platforms, accessible data repositories, and standardized tools to support research between academic and industry actors.
4. **Develop standardized evaluation frameworks:** Creating robust, context-sensitive metrics and assessment tools to evaluate the impact of games on learning, behavior, and social dynamics across diverse populations. There is also a need to enhance the rigour, assessment, evidence, and knowledge generated from games research and mobilize it to ensure the positive impact of games on society.

This Dagstuhl Report summarizes the outcomes of our seminar through a series of abstracts that introduce the nine themes.

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3 Overview of the Themes

Games research is an evolving field, shaped by rapid technological development and changing societal conditions. To effectively navigate this complexity and work toward maximizing the societal value of games, it is essential to identify and engage with the foundational themes that will shape the future of the field.

This *Dagstuhl Report* offers a high-level synthesis of eight key themes identified during the *Dagstuhl Perspectives Workshop 25102: The Future of Games in Society*. These themes, drawn from extensive dialogue and collective analysis within the games research community, represent at the same time the most promising opportunities for games expanding their positive societal impact, and the most urgent challenges confronting the field of games research. Each is explored in greater depth in the accompanying *Dagstuhl Manifesto* for the seminar. The themes are as follows:

1. Games for human flourishing
2. Realizing the potential of educational games to transform traditional education
3. Harms of games: shifting the paradigm from mitigation to prevention
4. Games as large-scale behavioural research platforms
5. Building sustainable and scalable research infrastructure
6. Building a global funding infrastructure for games research
7. Bridging industry and academia: knowledge translation and policy mediation for digital well-being
8. Societal awareness of games' impact through rigour in assessment, evidence, and knowledge mobilization
9. Games Research: Responsibility and Impact

The need to act on these themes has never been more pressing. As games increasingly influence digital culture, human behavior, and technological innovation, a coherent framework is required to guide their development and societal integration. These themes are not only central to the future of games research but also reflect broader systemic issues across academia, industry, and public policy.

Although each theme targets a specific domain, they are inherently interdependent. Their intersections reveal common barriers and shared possibilities for change — many of which extend beyond gaming itself.

Understanding and addressing these themes is essential for realizing the transformative promise of games. By articulating their underlying visions and interconnections, this report provides a roadmap for shaping the next generation of games research and aligning it with societal needs.

3.1 Theme 1: Games for human flourishing

Catherine Flick (University of Staffordshire, GB) (team leader), Julian Frommel (Utrecht University, NL), Linda Hirsch (University of California Santa Cruz, US), Simone Kriglstein (Masaryk University – Brno, CZ), Sebastian Deterding (Imperial College London, GB), Rachel Kowert (University of Cambridge, GB)

Our vision focuses on how games can contribute meaningfully to human flourishing, both at the individual and societal levels. Flourishing is defined here not merely as well-being, but

as the capacity to thrive before, during, and after play – manifesting in psychological growth, social connection, critical reflection, and collective values. Games hold unique potential in this regard due to their interactive nature, capacity for role-play, and ability to simulate complex systems. However, realizing this potential requires a holistic and systemic approach that accounts for the broader cultural, industrial, and political contexts in which games are produced and played.

We critique the current overemphasis on "well-being" in the literature and propose a broader, more nuanced understanding rooted in eudaimonic traditions. While much is known about how games can support individual mental, emotional, and physical well-being through inclusivity, accessibility, skill development, and positive experiences, less is understood about how to embed these practices within the mainstream games industry, particularly AAA development, and how to measure long-term societal impact.

To address these challenges, we propose a five-step roadmap:

1. Defining prerequisites such as freedom of expression, inclusive stakeholder engagement, and transparent governance;
2. Building shared concepts through co-creation with diverse actors from industry, academia, policy, and civil society;
3. Developing participatory metrics and heuristics for measuring flourishing, especially from marginalized perspectives;
4. Fostering individual flourishing through best-practice design, critical reflection, and support for self-determination;
5. Advancing societal flourishing by embedding games in shared spaces like education, community programs, and policy frameworks.

Significant challenges remain. Industry pressures prioritize profit over player well-being; governments are retreating from regulation; community moderation is inconsistent; and academic research remains fragmented. Nonetheless, key enablers – such as engaged community leaders, ethical developers, and interdisciplinary researchers – are already present and active.

We call for an ethics of co-creation rather than prescription, acknowledging the risks of bias, exclusion, and unintended consequences. We advocate for ongoing monitoring, broad representation, and institutional support to ensure that interventions are effective and equitable.

Advancing human flourishing through games is not simply a matter of better design or regulation, but requires systemic change across multiple sectors and levels. When supported by rigorous research, inclusive practices, and sustained collaboration, games can contribute to a more just, connected, and thriving society.

3.2 Theme 2: Realizing the potential of educational games to transform traditional education

Aleshia Hayes (University of North Texas – Denton, US) (Team Leader), Simone Kriglstein (Masaryk University – Brno, CZ), Fabio Zünd (ETH Zürich, CH), Magy Seif El-Nasr (University of California at Santa Cruz, US), Casper Harteveld (Northeastern University – Boston, US)

Educational gaming, while demonstrating significant potential across diverse learning contexts, continues to fall short of its transformative promise due to systemic barriers and implementation challenges. The chocolate on broccoli phenomenon persists, where games fail to effectively integrate educational content with engaging gameplay. Policy constraints, scalability limitations, funding bottlenecks, and technical barriers prevent widespread adoption despite decades of development from pioneering titles like The Sumerian Game (1964) to modern platforms like Minecraft: Education Edition.

Current educational games often lack understanding of learners, content, and context, resulting in products that are neither sufficiently educational nor engaging. Policy frameworks built around traditional education models create regulatory barriers, while localization challenges limit global applicability. Funding disparities create bottlenecks between development and implementation, and technical issues including restrictive firewalls and inadequate teacher training impede classroom integration.

To realize educational gaming's societal potential, we outline four key enablers:

1. **Comprehensive stakeholder buy-in through evidence-based advocacy**, demonstrating clear return on investment and measurable improvements in student performance, teacher satisfaction, and cost savings.
2. **Systematic capacity building and teacher preparation**, integrating game-based pedagogical approaches into university curricula and ongoing professional development programs.
3. **International collaboration networks and sustainable funding models**, establishing cross-border research partnerships and diversified funding mechanisms including public-private partnerships and outcome-based models.
4. **Strategic integration frameworks and quality assurance systems**, determining optimal opportunities for game-based approaches while preserving effective traditional practices through rigorous evaluation standards.

The roadmap toward impact spans multiple phases:

1. Immediate actions include synthesizing existing successful models, documenting global implementations, and establishing baseline effectiveness metrics.
2. Short-term goals (1-3 years) prioritize building foundational stakeholder networks, engaging policymakers, and creating communication platforms across disciplines.
3. Medium-term objectives (3-5 years) focus on systematic partnerships, validation frameworks, teacher certification programs, and quality assurance protocols.
4. Long-term outcomes (5-10+ years) include scaled pilot implementations, universal access solutions, and institutionalized game-based learning through policy integration and self-sustaining ecosystems.

These interventions hold transformative societal potential. Educationally, they promise personalized learning experiences that enhance digital literacy and reduce inequities. Socially, they create communities of practice connecting educators, students, and families around shared learning objectives. Economically, they prepare digitally literate workforces while supporting sustainable industry growth through more sophisticated consumers and creators.

By shifting from fragmented individual products to coordinated systematic implementation, this agenda envisions educational transformation where games enhance rather than replace traditional methods, creating engaging, equitable, and effective learning environments that serve diverse global communities while maintaining the human connections essential to meaningful education.

3.3 Theme 3: Harms of games: shifting the paradigm from mitigation to prevention

Regan Mandryk (University of Victoria, CA) (team leader), Julian Frommel (Utrecht University, NL), Guo Freeman (Clemson University, US), Kathrin Gerling (Karlsruhe Institute of Technology, DE)

Digital gaming, while globally pervasive and socially significant, continues to produce harms that are inadequately addressed by current practices. Toxic behaviour, deceptive design, problematic play, and inequitable access persist across platforms, with reactive moderation and fragmented policies proving insufficient. This manifesto proposes a paradigm shift from harm mitigation to proactive harm prevention, grounded in multidisciplinary research and actionable socio-technical strategies.

Toxicity – including hate speech, harassment, and extremist content – is widespread and difficult to regulate, in part due to its subjectivity and normalization within gaming culture. Deceptive design, such as loot boxes and exploitative reward structures, prioritizes monetization over player well-being. Problematic gaming behaviour, while controversial as a clinical diagnosis, causes demonstrable harm for some players, necessitating nuanced frameworks that avoid pathologizing healthy play. Meanwhile, barriers to equitable access, such as inaccessible interfaces and non-inclusive content, continue to marginalize diverse player groups. To address these interlinked harms, we outline four key enablers:

1. **A robust, accessible evidence base on the antecedents, mechanisms, and consequences of harm**, supported by interdisciplinary methods and large-scale in-situ studies.
2. **A strategic shift toward predictive modelling and real-time detection systems** that enable pre-emptive intervention.
3. **Cross-platform, context-sensitive intervention tools** – including algorithms, player-facing resources, and frameworks for ethical design – integrated with industry practices and community norms.
4. **Empowered players and resilient communities** equipped with improved literacy, transparent content communication, and mechanisms for rejecting harmful designs.

The roadmap toward impact spans multiple horizons:

1. Immediate actions include gathering evidence, identifying expertise, and setting pathways for responsible industry collaboration.

2. Short-term goals prioritize refining research agendas, prototyping tools, and developing educational resources.
3. Medium-term goals focus on predictive models, efficacy trials, and ethical data-sharing practices.
4. Long-term outcomes include public-facing repositories, policy implementation, and automated harm prevention systems.

These interventions hold promise for wide societal impact. Culturally, they aim to reframe gaming spaces as inclusive and safe. Educationally, they provide stakeholders – from players to policymakers – with the tools to understand and navigate digital harms. Economically, fostering healthier relationships with games will support the sustainable growth of the industry.

By shifting from fragmented responses to proactive, evidence-informed systems, this agenda envisions a future where games contribute not only to entertainment but to well-being, equity, and collective resilience in digital play.

3.4 Theme 4: Games as large-scale behavioural research platforms

Alessandro Canossa (Royal Danish Academy – Copenhagen, DK) (Team Lead), Fabio Zünd (ETH Zürich, CH), David Melhart (University of Malta – Msida, MT), Günter Wallner (Johannes Kepler Universität Linz, AT), Vero Vanden Abeele (Katholieke Universiteit Leuven, BE), Magy Seif El-Nasr (University of California at Santa Cruz, US), Regan L. Mandryk (University of Victoria, CA)

Digital games represent untapped laboratories for understanding human behavior at unprecedented scale and granularity, offering researchers the ability to capture the full spectrum of cognition, social interaction, and decision-making through naturally engaging digital environments. Unlike traditional research methodologies constrained by artificial laboratory settings and self-report biases, games provide controlled yet ecologically valid spaces where millions of participants exhibit authentic behaviors over extended periods, generating rich longitudinal datasets that reveal the fundamental algorithms underlying human psychology and social dynamics.

Current research demonstrates games' potential as behavioral research platforms through three key areas: game-based digital biomarkers for mental health assessment, games as microcosms enabling controlled social experimentation, and personality modeling through gameplay patterns. Studies show that behavioral traces from commercial games can serve as proxies for psychological traits, while virtual environments like Minecraft's anarchy servers provide natural experiments in self-organizing social structures. Advanced techniques now enable researchers to create surprisingly accurate personality profiles from gameplay data, while AI-powered synthetic humans offer unprecedented control over social experimentation variables.

However, significant barriers limit this potential. Ethical challenges around consent, privacy, and data ownership create complex legal landscapes where players may unknowingly contribute psychological profiles while simply seeking entertainment. Misaligned incentives between game companies focused on profit and researchers seeking scientific insight limit data

access and research independence. The potential for algorithmic harm through discrimination in hiring, insurance, or healthcare based on gaming-derived behavioral models raises profound concerns about dual-use applications of this technology.

To realize games' transformative potential as behavioral research platforms, we outline four critical enablers:

1. **Research-oriented game design and intelligent analytics infrastructure**, featuring modular architectures for systematic variable manipulation, comprehensive behavioral data capture, and AI-powered analysis systems capable of identifying complex patterns across massive heterogeneous datasets while maintaining player engagement.
2. **Robust ethical frameworks and interdisciplinary collaboration models**, establishing meaningful informed consent processes, advanced anonymization techniques, and partnership structures that align game development expertise with behavioral research rigor while navigating divergent objectives and success metrics.
3. **Universal data instrumentation and experimental manipulation systems**, developing cross-platform frameworks for behavioral data collection and unified modding systems enabling controlled experimental modifications across any game environment regardless of built-in research support.
4. **Advanced evaluation tools and synthetic content generation**, implementing AI-assisted analytics dashboards, procedural scenario creation, and synthetic human agents that enable scalable, controlled experiments while providing explainable insights into complex behavioral phenomena.

The roadmap toward impact spans multiple development phases:

1. Immediate priorities include automatic data instrumentation systems, memory-level capture frameworks, and standardized ethical collection protocols that work universally across gaming platforms.
2. Short-term development focuses on universal modding systems, dynamic game modification tools, and standardized experimental manipulation frameworks for controlled research within existing games.
3. Medium-term objectives emphasize procedural content generation, AI-driven synthetic humans for controlled social experimentation, and adaptive game environments that adjust parameters based on research requirements.
4. Long-term outcomes include comprehensive evaluation systems, AI-assisted analytics platforms, benchmarking frameworks for reproducible research, and meta-theories of human behavior in digital spaces that inform broader scientific understanding.

These interventions promise transformative societal impact across multiple domains. Scientifically, they enable data-driven policy innovation through virtual testing environments, revolutionize psychological research through digital behavioral twins, and advance healthcare through early mental health detection and personalized therapeutic interventions.

Educationally, they support adaptive learning systems that personalize instruction based on individual cognitive patterns while providing immersive professional training simulations. Socially, they enhance understanding of human dynamics across cultures while informing urban planning through virtual city simulations that predict actual resident behavior patterns.

By transforming games from entertainment platforms into sophisticated behavioral laboratories, this agenda envisions a future where digital environments serve as "petri dishes" for human psychology, capturing the performative rather than declarative aspects of behavior while providing ethical frameworks for studying sensitive social phenomena that would be impossible to replicate safely in real-world settings. Success requires sustained collaboration

between game developers, behavioral scientists, policymakers, and players themselves to ensure that these powerful research capabilities serve human understanding rather than exploitation, ultimately contributing to more nuanced, data-driven approaches to addressing complex social challenges through unprecedented insights into the fundamental nature of human behavior.

3.5 Theme 5: Building sustainable and scalable research infrastructure

Vero Vanden Abeele (KU Leuven, BE) (team leader), Günter Vallner (Johannes Kepler University Linz, AT), Linda Hirsch (University of California Santa Cruz, US), Katja Rogers (University of Amsterdam, NL), Kathrin Gerling (Karlsruhe Institute of Technology, DE), Regan Mandryk (University of Victoria, CA), Michael Young (University of Utah – Salt Lake City, US)

Games research, as an emerging field, lacks the foundational infrastructure necessary for sustainable growth and scholarly impact. Despite rapid expansion, the discipline suffers from fragmented knowledge, limited resource sharing, and inadequate professional development structures that hinder both individual researchers and collective progress. The organic growth of games research has created a situation where foundational theories remain unconsolidated, research artifacts are rarely preserved or shared, and early-career researchers struggle to navigate complex academic-industry ecosystems without adequate mentorship support.

Current challenges stem from the field's youth and interdisciplinary nature. Researchers frequently "reinvent the wheel" due to insufficient awareness of prior work, while empirical studies often create unique games and tools that remain inaccessible to other researchers, limiting reproducibility and progress. Professional development relies on scattered, often region-specific programs that fail to address the global nature of games research or provide sustained career guidance across academic and industry transitions.

To address these structural deficiencies and establish games research as a mature, impactful discipline, we propose three integrated infrastructure components:

1. **Establishing a comprehensive canon of seminal work**, featuring curated narrative reviews by leading experts, editorial oversight for quality and scope, and an online repository with visualization systems documenting key contributions, theories, and research artifacts to ensure coherent knowledge progression.
2. **Creating a platform for archiving and sharing of artifacts related to games**, providing technological sustainability, methodological rigor and long-term accessibility for research games, tools, and data sets while addressing legal, technical and infrastructure challenges through secure storage, analytics integration, and standardized documentation protocols.
3. **Developing a global mentoring center for professional development**, connecting researchers across academia and industry through structured programs, career guidance resources, and networking opportunities that support talent development from early career advancement to senior researcher transitions between sectors.

The implementation roadmap spans coordinated development phases.

1. Immediate actions include assembling editorial teams for canon development, defining platform functionality requirements for artifact sharing, and identifying global networks of mentoring representatives from academia and industry partnerships.
2. Short-term development focuses on creating narrative review standards, establishing modular platform architectures with data storage and analytics capabilities, and launching pilot mentoring programs with defined formats and evaluation mechanisms.
3. Medium-term objectives emphasize publishing canonical works through indexed venues, deploying comprehensive artifact platforms with versioning and accessibility features, and scaling mentoring networks through organizational partnerships and structured program expansion.
4. Long-term outcomes include maintaining dynamic canon updates reflecting field evolution, ensuring platform sustainability through continued technical and legal support, and establishing institutionalized mentoring frameworks that support sustained professional development across career stages.

These infrastructure investments promise significant social impact through improved research quality and accessibility. Canonical knowledge will improve the acceptance of research findings in games across disciplines, including education and psychology, allowing for more valuable scientific contributions. Artifact platforms will accelerate research progress while increasing transparency and reducing funding waste through improved reproducibility. Global mentoring networks will strengthen community effectiveness and competitiveness, empowering individual researchers while building collective capacity to address complex societal challenges through games research.

By establishing a robust infrastructure for knowledge preservation, resource sharing, and professional development, this agenda transforms games research from a fragmented emerging field into a mature discipline capable of sustained scholarly impact and meaningful social contribution across multiple domains.

3.6 Theme 6: Building a Global Funding Infrastructure for Games Research

Michael Young (University of Utah – Salt Lake City, US, Team Lead), Yvette Wohn (New Jersey Institute of Technology – Newark, US), Casper Harteveld (Northeastern University – Boston, US), Aleshia Hayes (University of North Texas – Denton, US), Guo Freeman (Clemson University, US)

Games research continues to grow in complexity and scope, yet it lacks the dedicated funding infrastructure necessary to support sustained global collaboration. This manifesto outlines a vision for a global research consortium and advocacy group that connects researchers, aligns national and international efforts, and secures stable, long-term investment in the field. By combining funding infrastructure with strategic advocacy, we aim to elevate games research as a legitimate and impactful domain across borders and disciplines.

The field faces numerous challenges: fragmented funding mechanisms, dispersed researchers, and limited institutional recognition. Its interdisciplinary nature, while a strength, complicates collaboration and grant eligibility. In addition, current advocacy efforts are

uncoordinated and often regionally constrained, limiting visibility and public support. Addressing these systemic issues requires the creation of a global framework that supports both research and advocacy efforts through dedicated leadership, stable funding, and broad coalition building.

We identify four key enablers for realizing this vision:

1. **A sustainable, global research consortium** that supports international coordination, secures dedicated funding, and provides infrastructure for long-term collaboration and support for researchers.
2. **Internal leadership and operational capacity**, including the establishment of financial, strategic, and advocacy roles with expertise in diverse funding ecosystems and cross-sector partnerships.
3. **An international advocacy group** that unites existing organizations, counters public stigma, and promotes the societal impact of games research through targeted communication and public engagement.
4. **Cross-sector alliances and stakeholder incentives** that foster participation, enable interdisciplinary cooperation, and link research output to global educational, policy, and cultural goals.

The roadmap spans multiple horizons:

1. Immediate actions include definition of the mission, community building, founding committees, and outreach to stakeholders and partners.
2. Short-term goals focus on staffing, securing seed funding, legal structure, and launching initial collaborative activities and resources.
3. Medium-term goals include expanding international nodes, refining funding strategies, supporting junior scholars, and evaluating impact.
4. Long-term outcomes include a self-sustaining infrastructure with endowments, annual reports, content studios, and matchmaking platforms for researchers, media, and policymakers.

This dual infrastructure of research and advocacy has the potential to reshape the social understanding of games. Culturally, it affirms games as legitimate and meaningful parts of life. Educationally, it opens new pathways for learning and behavioral change. Economically and politically, it enables targeted, evidence-driven investment and public policy. By institutionalizing global collaboration, this agenda sets the foundation for a new era of game research with lasting impact.

3.7 Theme 7: Bridging Industry and Academia: Knowledge Translation and Policy Mediation for Digital Well-being

David Melhart (University of Malta – Msida, MT, Team Lead), Enrica Loria (Keen Software House – Prague, CZ), Alena Denisova (University of York, GB), Magy Seif El-Nasr (University of California at Santa Cruz, US), Pejman Mirza-Babaei (Ontario Tech University, CA)

The game industry's rapid expansion is marked by fragmentation, ethical tensions, and disparities between large studios and smaller developers. Despite the capacity of academia for critical insight and innovation, structural misalignment and limited collaboration prevent

meaningful integration of research into development practices. This manifesto proposes a global consortium to institutionalize partnerships between academia, industry and policymakers, supporting ethical innovation, policy mediation, and knowledge translation for digital well-being.

Barriers include conflicting timelines and incentives, power asymmetries, bureaucratic overhead, and a lack of shared language and infrastructure. Collaboration is often limited to informal networks, excluding underrepresented groups and smaller studios. Although pressing, ethical concerns are difficult to address without trust, transparency, and mutual accountability. To build a responsible ecosystem, all stakeholders must engage in a structured and sustained collaboration.

We identify four key enablers to support this transition:

1. **Scalable academic infrastructures and actionable research outputs** that translate theory into tools, frameworks, and recommendations aligned with industry timelines and production needs.
2. **Formalized bridge roles and translational ecosystems** that connect academic and industrial actors, supported through fellowships, joint appointments, and co-development platforms.
3. **Industry engagement models** that encourage responsible design and participation in ethical certification, matchmaking systems, and collaborative research.
4. **Policy mediation and advocacy mechanisms** that translate academic evidence into practical regulation and support the co-creation of enforceable standards promoting digital well-being.

The roadmap to implementation includes:

1. Immediate actions: define consortium structure and goals; initiate trust-building dialogue; engage policymakers and stakeholders.
2. Short-term goals: develop ethical toolkits and training programs; formalize partnerships; launch shared matchmaking and collaboration platforms.
3. Medium-term goals: introduce certification systems; scale bridge-building roles; support interdisciplinary training and research initiatives.
4. Long-term outcomes: embed ethical development as an industry norm through governance models, co-created policy, and cross-sector accountability.

This agenda envisions a mature game development ecosystem rooted in ethical innovation and shared responsibility. It supports safer, more inclusive digital spaces. Culturally, it strengthens trust and public legitimacy. Economically, it reduces risk and boosts long-term sustainability. By institutionalizing collaboration and mutual respect, games can evolve into a sector that not only entertains, but also champions societal well-being and equity.

3.8 Theme 8: Societal Awareness of Games' Impact through Rigour in Assessment, Evidence, and Knowledge Mobilization

Katja Rogers (University of Amsterdam, NL, Team Lead), Alena Denisova (University of York, GB), David Melhart (University of Malta – Msida, MT), Lannart E. Nacke (University of Waterloo, CA), Anders Drachen (University of Southern Denmark – Odense, DK), Catherine Flick (University of Staffordshire, GB), Vero Vanden Abeele (KU Leuven, BE), Kathrin Gerling (Karlsruhe Institute of Technology., DE), Regan L. Mandryk (University of Victoria, CA), Magy Seif El-Nasr (University of California at Santa Cruz, US), Günter Wallner (Johannes Kepler Universität Linz, AT), R. Michael Young (University of Utah – Salt Lake City, US), Linda Hirsch (University of California at Santa Cruz, US)

Games research holds the potential to create substantial societal impact, but this impact is limited by fragmented assessment practices, disconnected evidence bases, and underdeveloped knowledge mobilization. This manifesto envisions a future where rigorous, large-scale assessment is supported by shared infrastructures, where interdisciplinary research is recognized through meta-assessment criteria, and where evidence is mobilized beyond academia to inform policy, education, industry, and public discourse.

Currently, games research is often siloed, with limited opportunities for scaling, replication, or cumulative knowledge-building. The field's interdisciplinary nature, while a strength, creates inconsistencies in how research is assessed and understood, complicating collaboration and slowing progress. Meanwhile, the societal value of games remains poorly communicated to key stakeholders due to a lack of accessible, tailored evidence. Addressing these challenges requires systemic change across infrastructure, methods, and outreach.

We identify four key enablers to realize this vision:

1. **Sustainable, large-scale research infrastructure and data ecosystems** that support coordinated assessment, data donation, and resource sharing between projects, institutions, and countries.
2. **Shared meta-assessment criteria and vocabulary** that respect disciplinary diversity while supporting mutual understanding, interdisciplinary collaboration, and coherent quality standards.
3. **Community-driven evidence maps and customized communication strategies** to translate research for policy makers, funding bodies, educators, and the public.
4. **Systemic incentives and support structures** to encourage interdisciplinary practices, knowledge translation, and long-term collaboration between academia, industry, and stakeholders.

The roadmap toward implementation includes:

1. Immediate actions: form advisory groups for large-scale infrastructure and knowledge mobilization; expand evaluation criteria for games research contributions.
2. Short-term goals: identify key resources, platforms and stakeholder needs; develop example-based meta-assessment materials; engage policy makers and educators.
3. Medium-term goals: launch collaborative projects; embed assessment tools into games; prototype audience-specific evidence maps and summaries; advocate for targeted funding.
4. Long-term outcomes: maintain and expand large-scale platforms, implement interdisciplinary training, deploy evidence maps for policy advocacy, and normalize societal impact framing in games research.

This agenda supports a more cohesive, visible, and impactful field. Culturally, it empowers diverse narratives and strengthens the legitimacy of games. Academically, it fosters collaboration and quality. Politically and economically, it informs policy and unlocks funding. Through this transformation, games research can serve not only players and developers, but society as a whole.

3.9 Theme 9: Games Research: Responsibility and Impact

Anders Drachen (SDU Metaverse Lab, DK), Johanna Pirker (TU München, DE & Graz University of Technology, AT), Lennart E. Nacke (University of Waterloo, CA)

There is a gap between the potential and the realized societal impact of games research. While the field has matured considerably over the past two decades - spanning education, health, public policy, and technological innovation - transformative outcomes remain limited in scale and frequency. Despite numerous funded projects and scholarly outputs, few have translated into lasting, wide-reaching societal benefit. The report outlines both the historical contributions of academic research and the systemic barriers that constrain its broader impact.

Notable academic contributions include advancements in domains such as game AI, analytics, and user research, as well as successful but isolated interventions such as *Foldit* (citizen science), *Re-Mission* (health), and *SnowWorld* (VR pain management) and *WEAVR* (adacemia-industry collaboration). These cases demonstrate the potential for games to support learning, therapy, and civic engagement. However, most initiatives remain stuck at the prototype stage due to scalability issues, funding discontinuities, and limited integration into institutional systems.

Key barriers include structural misalignments between academic and industry incentives, a lack of dedicated support for scaling beyond research prototypes, and insufficient recognition of societal impact in academic evaluation metrics. Furthermore, large-scale industry research often overshadows academic efforts, reducing the visibility and uptake of scholarly innovations. Ethical concerns - particularly around data privacy, exploitative mechanics, and negative public perception - add complexity to adoption, especially in regulated sectors like healthcare and education.

To address these challenges, we propose a structured roadmap. Immediate actions (1–2 years) include forming cross-sector working groups and developing standard assessment tools. Medium- and long-term priorities (2–8+ years) involve aligning incentive structures, institutionalizing ethical frameworks, building shared infrastructure, and embedding game-based solutions into public systems such as schools and hospitals. Continuous improvement cycles and robust ethical oversight are essential for sustainable progress.

A cultural shift is required: games research must prioritize real-world outcomes over academic prestige. Enabling this transformation demands new evaluation criteria, sustained funding models, and cross-sector collaboration that centers on shared societal goals. The United Kingdom-based *Smart Data Donation Service* is one potential model of this future: an initiative that empowers citizens, supports research, and informs policy by bridging data asymmetries between industry and academia.

Ultimately, we argue that while the path to impact is difficult - requiring institutional change across multiple sectors - it is not unattainable. Strategic coordination, ethical rigor, and a focus on societal value can allow games research to fulfill its transformative potential.

Participants

- Alessandro Canossa
Royal Danish Academy – Copenhagen, DK
- Alena Denisova
University of York, GB
- Anders Drachen
University of Southern Denmark – Odense, DK
- Catherine Flick
University of Staffordshire – Stoke-on-Trent, GB
- Guo Freeman
Clemson University, US
- Julian Frommel
Utrecht University, NL
- Kathrin Gerling
KIT – Karlsruher Institut für Technologie, DE
- Casper Harteveld
Northeastern University – Boston, US
- Aleshia Hayes
University of North Texas, US
- Linda Hirsch
University of California – Santa Cruz, US
- Simone Kriglstein
Masaryk University – Brno, CZ
- Enrica Loria
Keen Software House – Prague, CZ
- Regan L. Mandryk
University of Victoria, CA
- David Melhart
University of Malta – Msida, MT
- Pejman Mirza-Babaei
UOIT – Oshawa, CA
- Lannart E. Nacke
University of Waterloo – Stratford, CA
- Johanna Pirker
TU München, DE
- Katja Rogers
University of Amsterdam, NL
- Magy Seif El-Nasr
University of California at Santa Cruz, US
- Vero Vanden Abeele
KU Leuven, BE
- Günter Wallner
Johannes Kepler Universität Linz, AT
- Donghee Wohn
NJIT – Newark, US
- R. Michael Young
University of Utah – Salt Lake City, US
- Fabio Zünd
ETH Zürich, CH

Remote Participants

- Sebastian Deterding
Imperial College London, GB
- Rachel Kowert
Discord – San Francisco, US