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Commercial video games as therapy: A new research agenda to unlock the potential of a global pastime

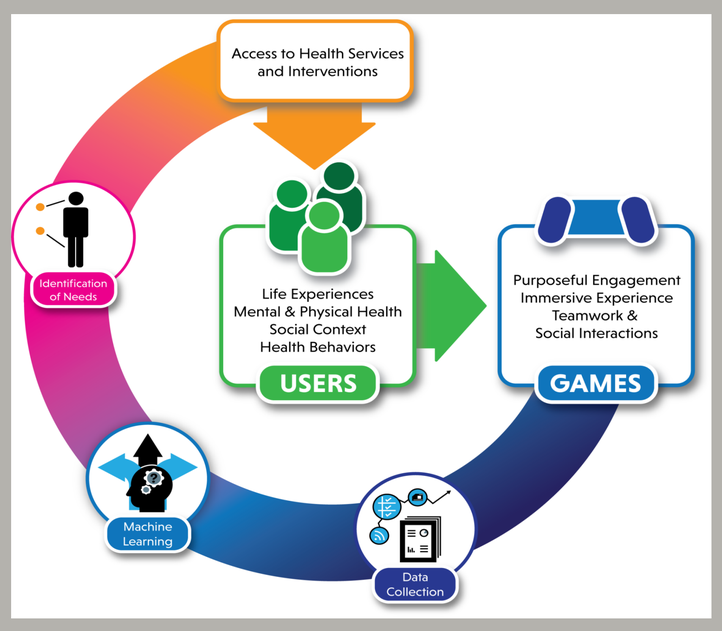
Michelle Colder Carras [1], Antonius van Rooij[2], Donna Spruijt-Metz[3], Joseph Kvedar[4], Mark D. Griffiths[5], Yorghos Carabas[6], Alain Labrique[6]

[1]Johns Hopkins Bloomberg School of Public Health, Mental Health, Baltimore, United States; [.2]Trimbos Institute, Utrecht, The Netherlands; [3]Dornsife Center for Economic and Social Research, University of Southern California, Los Angeles, United States; [5]Nottingham Trent University, Psychology Division, Nottingham, United Kingdom , [2] Johns Hopkins Bloomberg School of Public Health, International Health, Baltimore, United States

INTRODUCTION

- Pilot studies of commercial games and gaming communities provide early evidence of health benefits in a variety of areas.
- Systematic efforts to characterize and better understand this potential have not been undertaken.
- We provide background information on the use of commercial video games for the prevention, treatment and rehabilitation of mental and other health conditions as a vehicle to launch a new interdisciplinary research agenda.

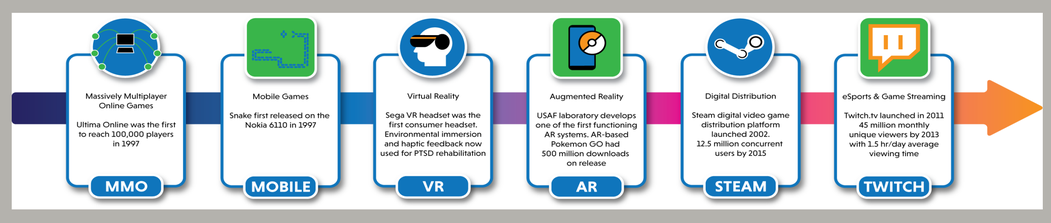
CONCEPTUAL FRAMEWORK



EXISTING EXAMPLES

Health benefit	Game	Reference
Reduction of intrusive memories after trauma[1]	Tetris	Iyadurai et al. 2017
Assessment of cognitive status in elderly[2]	FreeCell Solitaire	Jimison et al., 2004
Amelioration pre-op anxiety in children[3]	Handheld games	Patel et al., 2006
Remission of depression[4]	Bejeweled 2	Russoniello et al. 2013
Increase in physical activity[5]	Pokémon GO	Althoff et al., 2016
Improvement in cognitive functioning in elderly	Wii Sports	Stanmore et al., 2017

CHALLENGES



- Rapid pace of change of games, technologies, and game communities
- Developing standardized terminology and reporting
- Designing standardized protocols and best practice
- Investigating interdisciplinary approaches
- Establishing best practices and ethical protocols
- Developing methods to model the complex, temporally dense data that games provide
- Investigating best practices for determining which games work for which health condition/population, including:
  - Potential mechanisms for intervention effects
  - Economic analyses
  - Ongoing monitoring and evaluation of effectiveness

CONCLUSIONS

- The consequences and implications of hyperconnected, global communities of gamers are poorly understood.
- A systematic research agenda will require innovative public/private collaborations between academia, gaming communities and private sector developers.

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