

GAMES FOR HEALTH EUROPE 2026

“Instant XR Intervention: Leveraging Flash Mobs to Accelerate Rehab Research”

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GAMES FOR HEALTH EUROPE 2026 CONFERENCE

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The Healthcare Challenge

- Health innovations take on average 17 years to be implemented
- Research and development of novel technology and health innovations are costly and resource-consuming



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What is a Flashmob Study?

- Based on flashmob dances popular around the world
- Short duration
- Located at high traffic places
- Perform action together
- Spontaneous participation



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Study Design

- **Context:** Roessingh Centre for Rehabilitation
- **Technology:** HoloLens (Mixed Reality (XR)) with the HoloMoves application
- **Duration:** Three-day period in the Main Hall (Bomenhal)
- **Intervention:** Demonstrations and answering questions
- **Measurements:** Questionnaire
- **Recruitment:** Got contact information from physical therapists



Study Design

- Request physical therapists for follow along days
- Observed providers for half a day each
- Patients who used the HoloMoves applications were asked to fill out a questionnaire
- Providers who participated were asked to fill out a questionnaire



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Initial Results Patients

- Predominantly positive
- Easy to use
- Intention to use
- Recommend to others
- Help motivate



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Initial Results physical therapists

- Positive reactions to the HoloLens with HoloMoves
- Potential for balance and coordination training
- 65% saw added value to treatment
- 35% saw potential if further development was attained
- Need for more variation in exercises
- Need for more adaptations to patient needs



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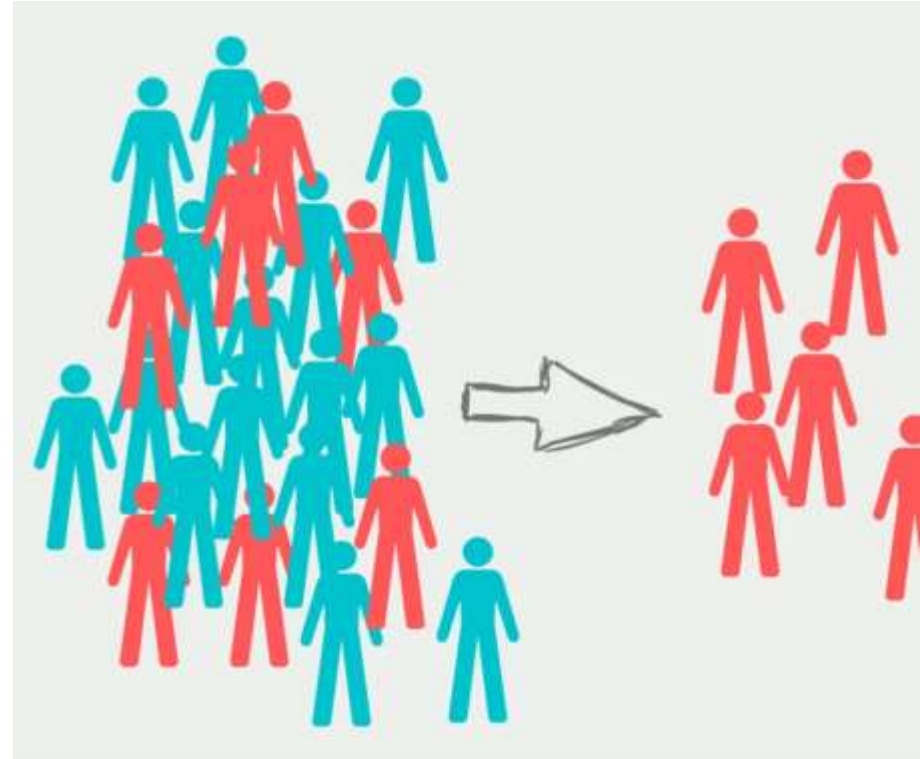
Future Directions

- Perform more flashmob studies:
 - Different applications
 - Different locations
 - Different target groups
- Review the acceptance design
- Review participation numbers



Limitations of a Flashmob Study

- Lack of inclusion and exclusion criteria
- Lack of long-term outcomes
- Selection bias
- Lack of causation



Potential Use and Benefits of Flashmob Methods

- Gauge user motivation of an innovation
- Evaluate user engagement drivers with an innovation
- Assess which department would be the best fit
- Fast way to find research participants
- Investigate user willingness and enthusiasm for an innovation
- Tap into the user mindset around adoption



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