



Carousel project presentation to Sister Projects

February the 4th 2022
Virtual Meeting
Pieter van der Linden

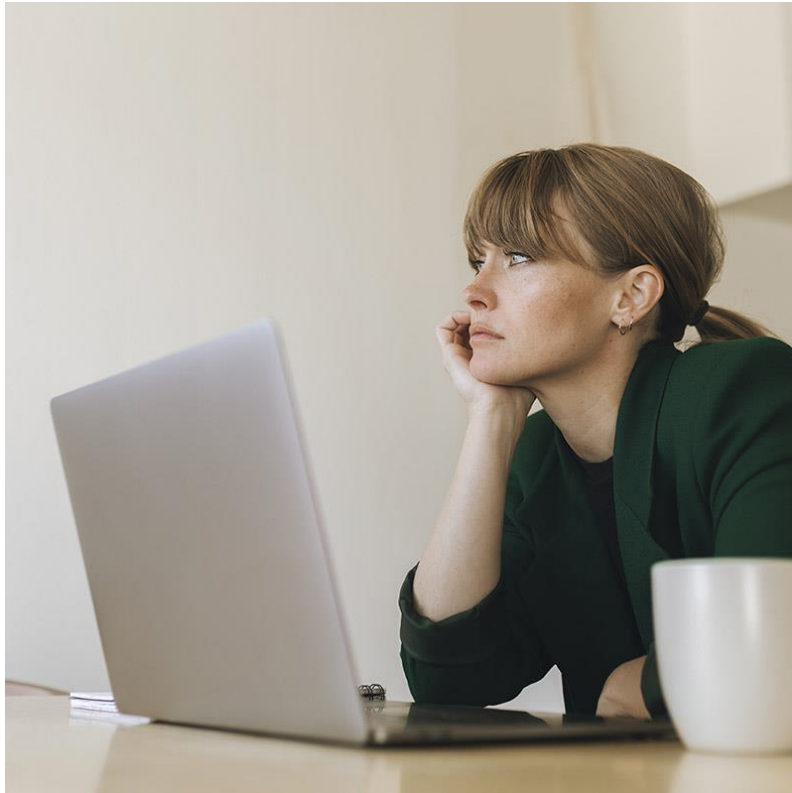
Who are we



Our	Our Consortium	Country
1 (Coordinator)	Deutsches Forschungszentrum für Künstliche Intelligenz	DE
2	Grassroots Arts and Research	DE
3	Edinburgh Napier University	UK
4	VIVITnet	FR
5	Aalto University	FI

Together we develop Carrousel a Human Centric Research project on using AI and XR for allowing Social Interaction by dancing.

What problem is being addressed



Despite increasing digital communication channels (Email, social networks) the **feeling of Loneliness increases in the population.**

- The online experience is mostly passive, disconnected and disembodied.
- Users are isolated from real-world sensations and feelings

Our vision



Carousel has the vision that with novel and imaginative combinations of **AI and immersive interaction** technologies people will be able to **feel** each other, **touch** each other and **move together** even if they are physically in different spaces.

Our vision



For deploying this vision we use **dance.**

Dancing is a deeply human activity for feeling connected and happy.
*and having joy, and falling in love,
and celebrating rituals, ...*

Does Loneliness matter?



"Loneliness and social isolation can be as bad for patients as chronic long-term conditions"

Royal College of General Practitioners Wales

Covid loneliness: 'I craved human touch after months of no hugs'

Alice Gray – BBC News

Loneliness a 'bigger health risk than smoking or obesity'

Catherine Evans – BBC News

I find social dancing to be a lot of fun and it is very enjoyable to be able to express yourself in creative ways, as well as experiment the interactions with your partner while doing various movements."

An enthusiast.

"The best things happen, while you are dancing"

Irving Berlin – and many artists Franck Sinatra/Kurt Elling/Danny Kaye

The project Artistic and Social inspiration



➤ Carousel: „Tu me fais tourner la tête“ (You make spin my head)

- the song by Édith Piaf
- the painting by Marc Chagall
- the theatre play by Mattatoio Sospeso „Aérien et Poétique“



What is our Aim?



- **Combat Loneliness** by making people feel good and socially connected
- By allowing them to start **anytime** an open **networked party in my home** to dance together with others and feel good.



- Dance partners are maybe user driven avatars or autonomous AI-Agents - I do not care, it just feels good to dance together!

The vision of the online party



In a club?

In front of the
village hall?



In a ballroom?



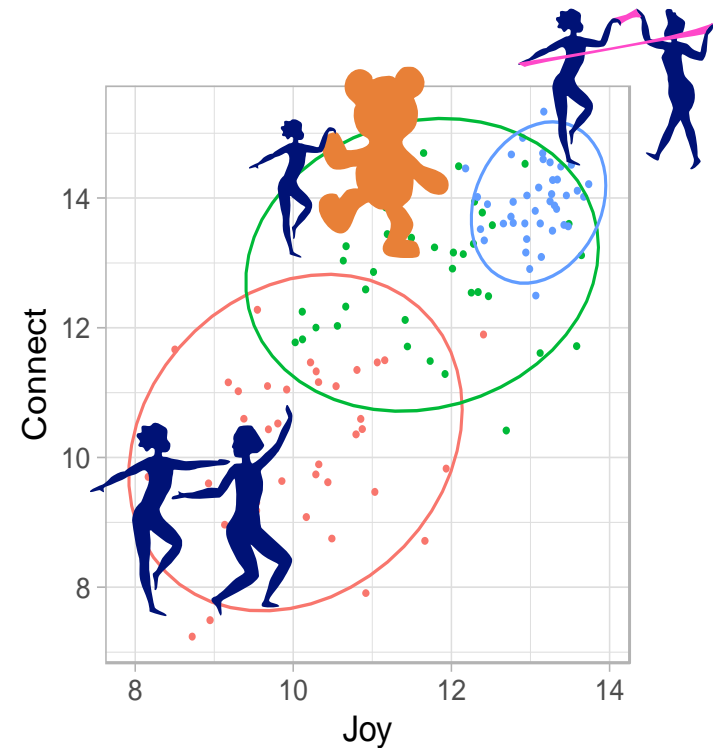
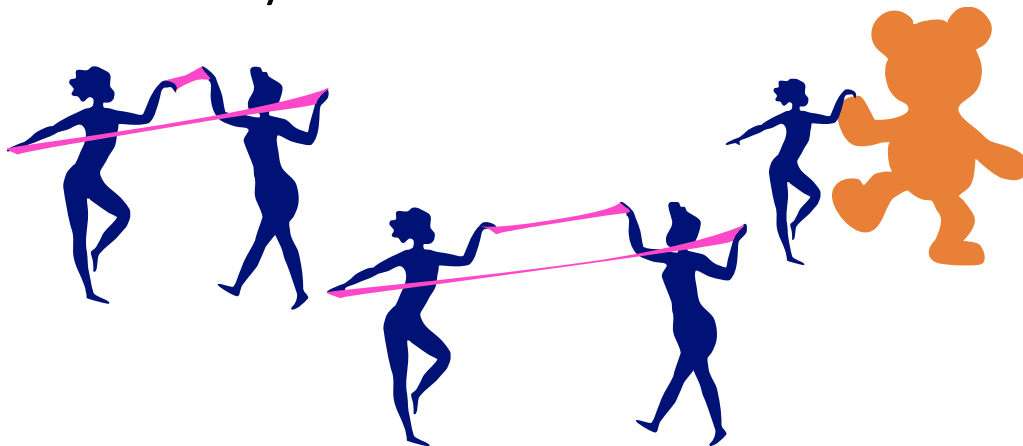
Or in a garden?



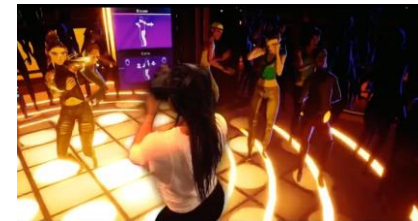
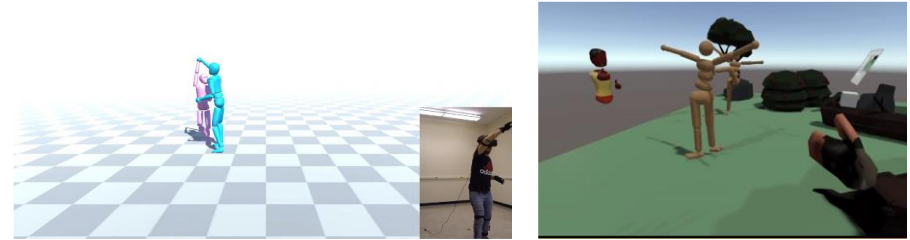
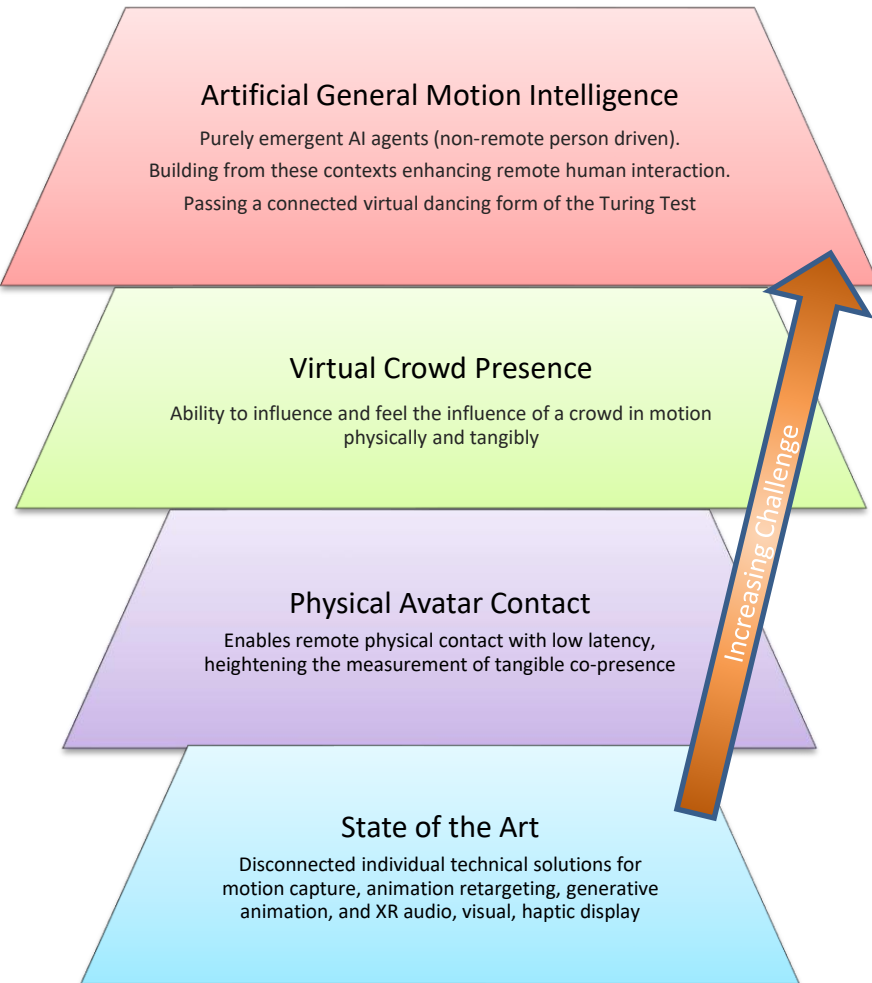
How do we measure success?



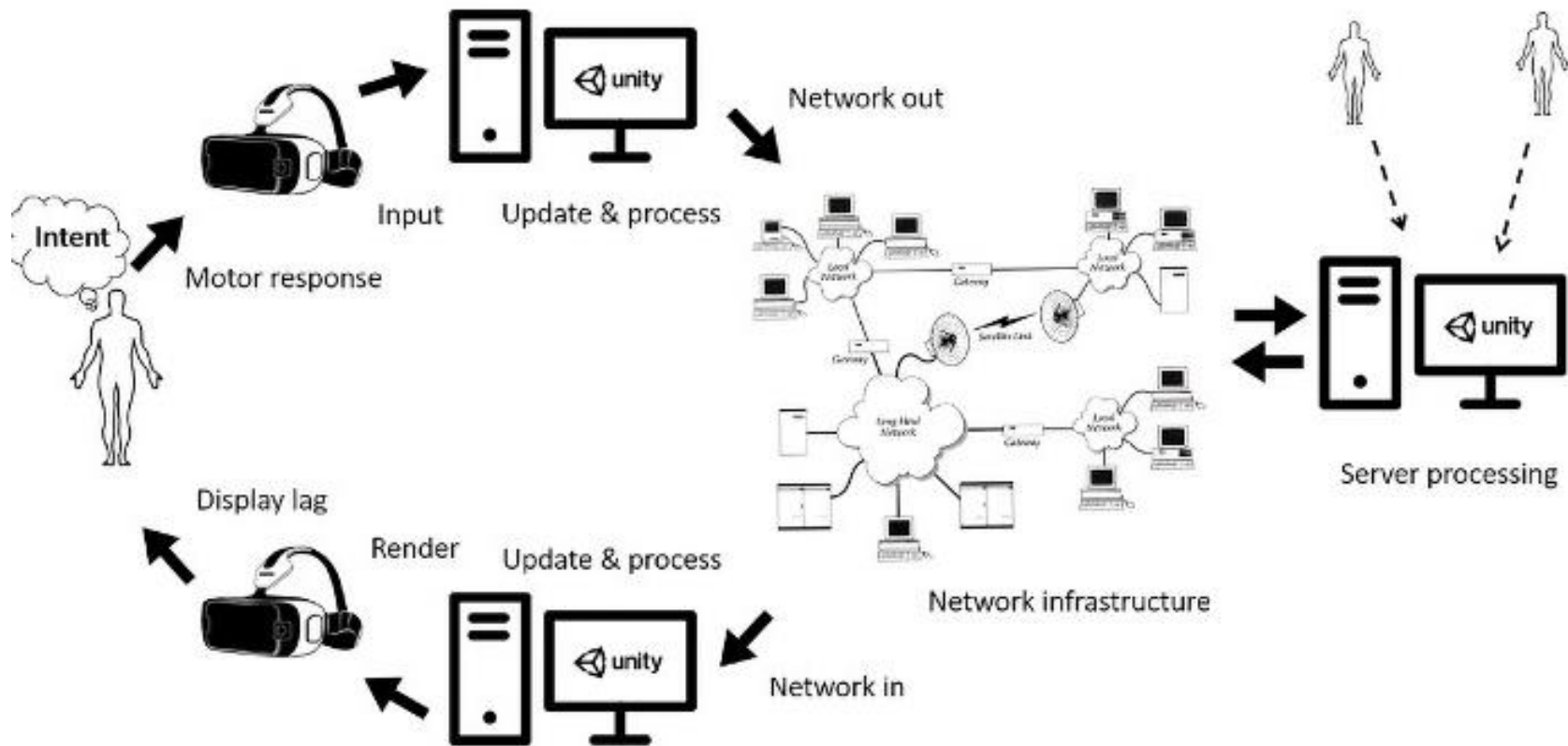
- Continuously measure whether we are achieving our goals by measuring connectness and joy from humans dancing remotely
- Main criteria:
 - Connectness
 - Joy



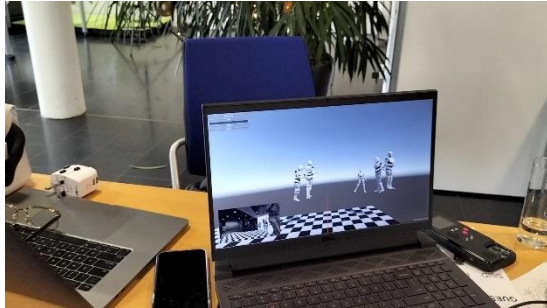
What are the technical challenges



How do we address these challenges?

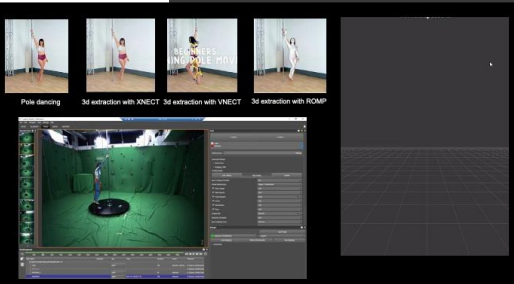


How far did we come so far...?



**Unencumbered
pose estimation
with 3D camera**

**Unique dataset of
popular dances**



**Synchronized low
latency unity
instances**

**Physically
plausible AI avatars**

