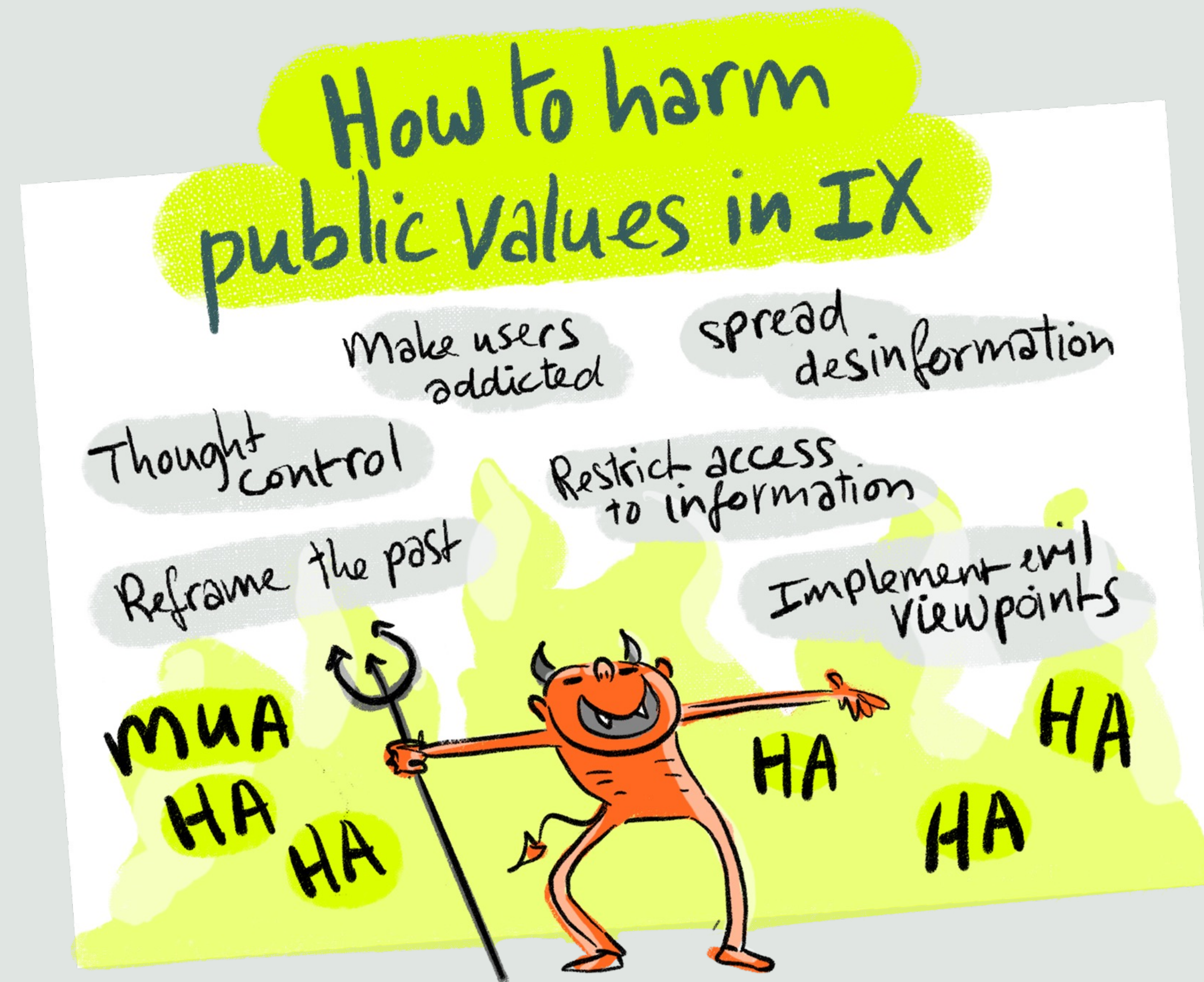


CI/C

Towards value driven Virtual Worlds – Heleen Rouw



Why do we need value driven Virtual Worlds?



As with all digital applications, IX can be misused.

Bottlenecks in the EU



- **Non-European companies** have continued to dominate the market, investing in hardware, networking, and software, and acting as **key enablers**.
- **Software development**, a particularly profitable area, is **underexplored** in the EU, due to the significant investment required.

How does CIIC address these challenges, working towards an inclusive, strong IX ecosystem in the Netherlands?

Key challenges in IX addressed by the Creative Industries Immersive Impact Coalition:

- 1 **Lack of knowledge and methods**
- 2 **Need for qualified human capital**
- 3 **Lack of experience with applied IX**

- 4 **Need to embed public values in IX innovation**

Actively working on responsible IX: ethics, privacy, sustainability, data security, behavior, inclusion and diversity, and open standards.

The IX community actively reflects on public values:



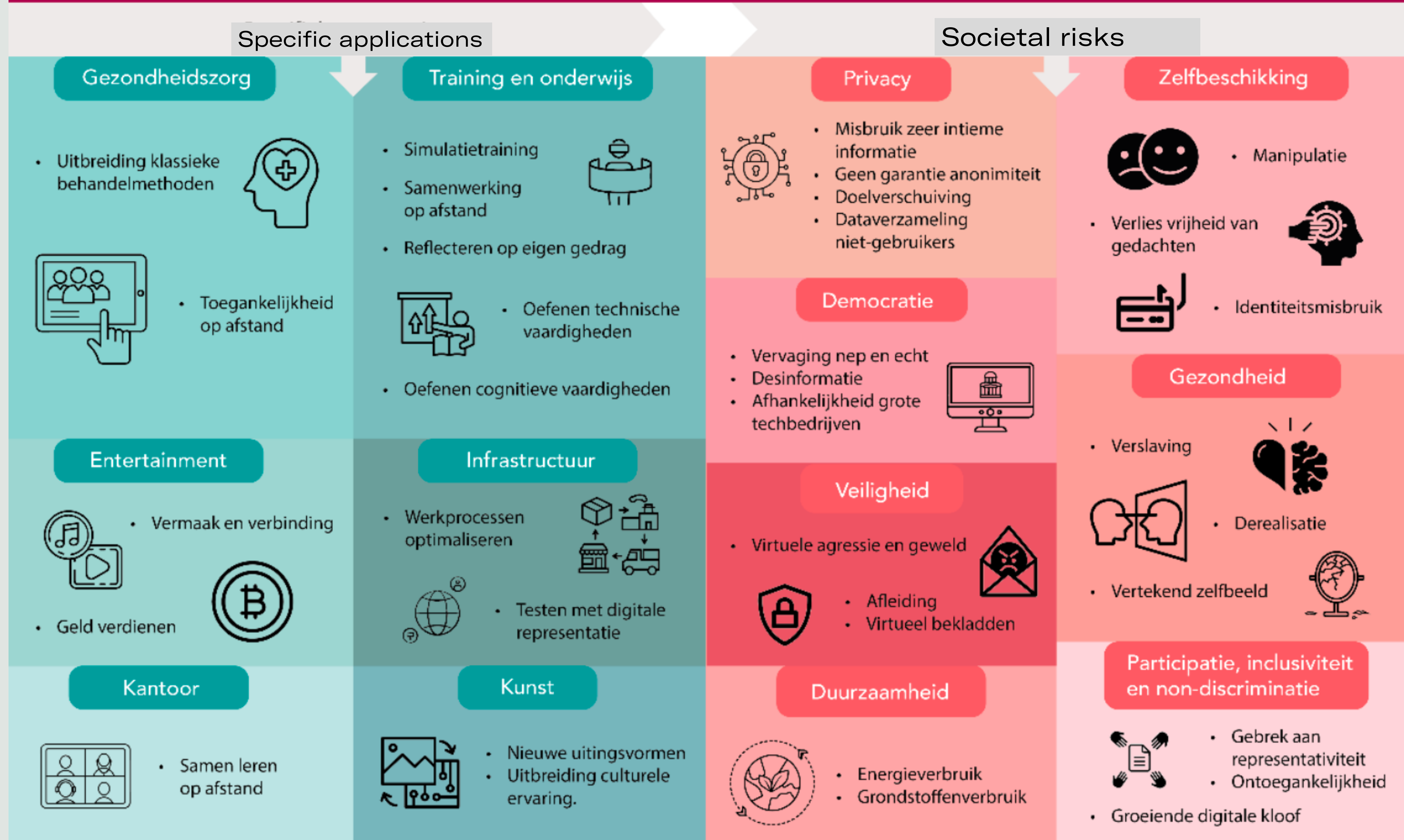
“Responsible IX may not be a given due to its dependence on Big Tech.” – remark developer co-creation session, June 2024

“The conversation about what **fair use means was more important than the technology itself.”** – consortium artistic design, April 2025

“We keep having the conversation: is this inclusive, can everyone participate?” – consortium artistic design, April 2025

“If we, as the Netherlands, want to position ourselves based on public values, we must also be **reflective.”** – Co-creation session CIIC, June 2024

Immersive technologies in society



How to safeguard public values in creating virtual worlds?



Guidelines

- Input to the development of guidelines for safe, ethical, sustainable and inclusive development and use of AI.
- Support European and global agendas.

Education

- Professional workforce upskilled with knowledge and skills.
- Base-skills incorporated into education for sufficient, qualitative recruitment of designers, developers and implementers.

Level playing field

- Contributing to conditions for creating a level playing field in the market, in the context of dominant BigTech.
- Contributing to the development of open standards.
- Utilizing government as an application domain.

We need to create safe & inclusive virtual worlds



Let's push practical use of code of conducts...





Code of Conduct for the Human-Centered and Ethical Development of Immersive Technologies

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Reviewers: Subject to several iterative reviews informed by consultations with XR experts (developers, policymakers, researchers), the Consortium, and the public.

This document is aspirational in scope and co-created to provide guidance for developers of XR technologies. While some provisions may intersect with legal considerations, the document itself does not carry legally binding force.

2025

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Key Areas of Impact	Yes	No	In-part	N/A	Evidence / Notes to indicate criterion is satisfied
1. Health and Wellbeing					
Principles: Human- Centered Design Articles: Wellbeing by Design					
The XR experience was developed through iterative user testing and ethical design principles, ensuring that it aligns with human-centered design criteria by prioritizing usability and user well-being (physical and mental).					
2. Autonomy and Identity					
Principles: Human-Centred Design; Identity and right to anonymity; Trustworthiness and Transparency Articles: User Transparency by Design; Identity; Engagement with Non-Human Resources					
The XR experience was designed to authentically represent user identities while upholding autonomy, ensuring that users have full control over their presence, choices, and interactions within the immersive environment.					
3. Data and Technology					
Principles: Trustworthiness and Transparency; Privacy and Data governance; Technical security and interoperability Articles: Data gathering protection and use					
Privacy and Data Governance: The XR experience was developed with robust data protection measures and adherence to legal and ethical data governance frameworks, ensuring user privacy, informed consent, and secure handling of personal data.					
Interoperability: The XR experience was developed with consideration of interoperability to facilitate seamless integration across platforms where practicable.					
Technical security: Technical security measures include robust cybersecurity measures to protect user data and system integrity.					
4. Social					
Principles: Diversity, inclusivity and accessibility, Equitability; Safe Experience; Risk Management and Moral Dilemma Resolution Articles: Shared Spaces; Engagement with Non-Human Resources					
Equitability and Diversity: The XR experience was developed with a commitment to social equity, ensuring fair representation, inclusive design, and equitable access to immersive technologies for diverse users, where practicable.					
Accessibility and Inclusivity: The XR experience was designed with accessibility and inclusivity at its core, incorporating adaptive features, diverse user needs, and compliance with accessibility standards to facilitate equitable participation for all users.					
5. Environmental					
Principles: Sustainability Articles: Risk Management by Design					
The XR experience was developed with sustainability in mind, incorporating energy-efficient technologies, eco-friendly design practices, and responsible resource engagement to minimize environmental impact.					

Public Values Guidelines for Immersive Experiences

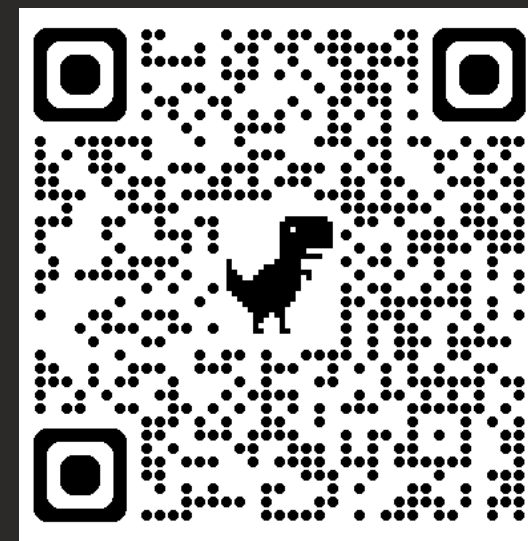
March 2025, Version 0



and work together to implement and develop.

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Contact us



Seizing opportunities and safeguarding Public Values



To guide the growth of virtual worlds in the right direction — ensuring that public values are safeguarded and risks remain manageable — CIIC takes the lead in:

Building

A broad coalition of businesses, education, government, and the public that work closely together and build on each other's lessons.

Validating

Validating and sharing methodologies and tools that enable the ecosystem to develop and apply effective and responsible IX.

Implementing

A knowledge-driven program to develop and disseminate skills, facilities, and Human Capital.

Setting agenda

On aspects such as ethics, privacy, sustainability, data security, inclusion, diversity, and open standards.

CIIC Programme



CIIC establishes an integrated programme with four Action Lines that lead to the desired impact on Dutch economic growth capacity and societal transitions:

1. Knowledge and Methods

Applied and practice-oriented research for the development of better knowledge and tools for the effective and responsible development of IX.

2. Human Capital

Enlarging and strengthening the talent pool to conceptualise, build and adapt IX.

3. Ecosystem and Facilities

Building a strong interacting Dutch IX-innovation ecosystem and supporting its applications.

4. Innovation & Demonstration Projects

Projects around design, production, application and effects of IX, in which both public and private organisations and makers and users come together.

5. Synergy & interconnectivity

Innovation Agenda

Public Values

Community & Events

Narrative & Communication

Knowledge Platform