

#### PANEL #1

# Theme Human Interaction in the Digital Era

IARIA Congress 2025 & DigiTech 2025



#### PANEL #1

#### **Moderators**

Prof. Dr. Claudia Heß, IU Internationale Hochschule, Germany

Prof. Dr. Sibylle Kunz, IU Internationale Hochschule, Germany

#### **Panelists**

Prof. Dr. Matthias Harter, Hochschule RheinMain, Germany Prof. Dr. Júlio Monteiro Teixeira, Federal University of Santa Catarina (UFSC), Brazil

Dr. José Miguel Martins Lucas, Universidade de Coimbra - Faculdade de Direito, Portugal

Dr. Andras Horvath, Peter Pazmany Catholic University, Hungary Prof. Dr. Petre Dini, IARIA, USA/EU



# VENICE 2025

- Discussing Human Interaction in the Digital Era
- Topics:
  - Digital Dependency
  - Empathy Erosion & Phubbing
  - Digital Burnout
  - Virtual Intimacy & Cyber-Bullying
  - Digital Divide, Aloofness, Digital Detox etc.



Prof. Dr. Sibylle Kunz Media Computer Science



Prof. Dr. Claudia Hess Digital Transformation



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#### Computer-mediated Communication

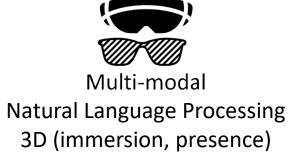












Digital Divide, Burnout, Aloofness



Bullying,
Hate-speech
Cyber-stalking
Cyber-grooming



**Digital Dependency** 



Digital Detox





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#### Virtual Intimacy & Cyber-Bullying

- Have happened from the beginning, e.g. in bulletin-boards, Usenet etc. (Rheingold, H. (1993).The Virtual Community.)
- Online harassment: "interpersonal aggression or offensive behavior(s) that is communicated over the internet or through other electronic media" (Slaughter, A. and Newman, E. (2022). New Frontiers: Moving Beyond Cyberbullying to Define Online Harassment. Journal of Online Trust and Safety, 1(2), <a href="https://doi.org/10.54501/jots.v1i2.5">https://doi.org/10.54501/jots.v1i2.5</a>.)
- Sexual harassment in XR / 3D Environments
  - Stop-gestures (user, real-time)
  - Guarding personnel in virtual environments (real-time)
  - Forms to report misuse (ex-post)
  - AI/Natural language understanding as a chance for auto-detection of misbehavior?
  - Discussion: "Freedom" vs. "Security", protection of children/teenagers/women/LGBTQ+...
  - Cultural aspects
- Chair position: It's not 'only a game' we need to establish & enforce virtual house-rules. Al can help in doing so.



Prof. Dr. Sibylle Kunz Media Computer Science

Kunz, S., Hess, C., Steffen, A. (2025)

It's NOT "only a game"! Strategies

against sexual harassment in

immersive VR environments.

International Conference on Gender

Research 8(1)500-503. DOI:

10.34190/icgr.8.1.3209



Digital Dependency ?

Nomophobia? abbreviated form of "nomobile-phone phobia."

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#### **Digital Dependency**

- "a person's persistent inability to regulate the use of digital devices, on which he or she has become highly dependent" (Gonçalves et al., 2023)
- This is not new! Internet dependence has been described since the mid-1990s
- High technology exposure from early childhood on
- Algorithms/platforms built to maximize user engagement/time "attention economy"
- Consequences
  - Addiction, fear of missing out
  - Brain rot & Digital dementia
  - Skill atrophy, loss of autonomy, over-reliance on digital assistants AI assistants!!!
- Discussion
  - Are worries about AI assistants and skill loss similar to past concerns about calculators?
  - Should we deliberately "train" ourselves and future generations to remember, calculate, or decide "the old way"?
  - How can education balance the benefits of digital learning tools and the risks of overuse?
- Chair position: In a work environment characterized by human-AI collaboration, it is particularly important for career starters to learn from the ground up in order to assess and improve the quality of co-created results.



Prof. Dr. Claudia Hess Digital Transformation



# Venice July 2025

#### Empaphy Erosion

- Consequence: emotional overload
  - It is easier than ever to generate emotionally overloaded audio and video content
  - content resonates with audience
  - Analytical thinking is in decline, emotionally driven considerations increasing

#### Digital Burnout

- Emotional overload leads to distraction and procrastination
  - Euphemism for learning disability and lack of concentration

#### Phubbing in Academia

- Is it new?
  - No, term described in article on Wikipedia for the first time in 2013



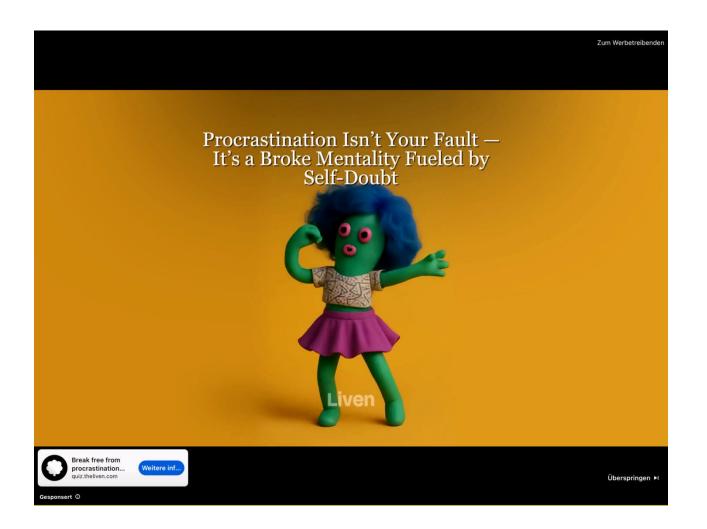
Matthias Harter Hochschule RheinMain



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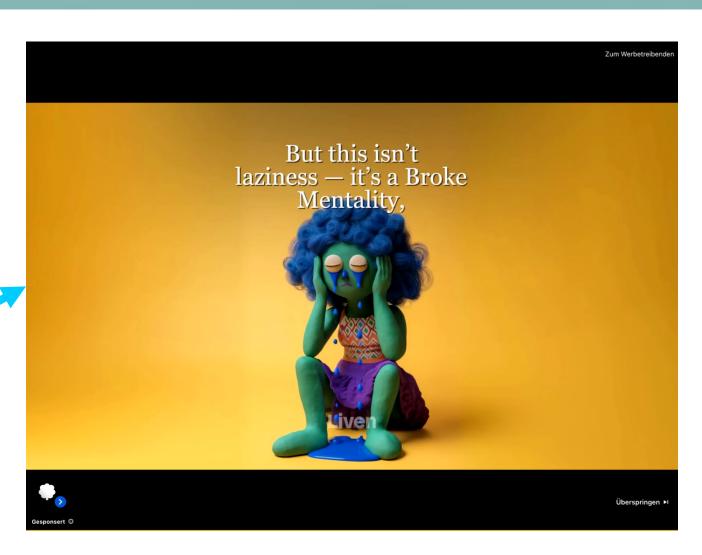




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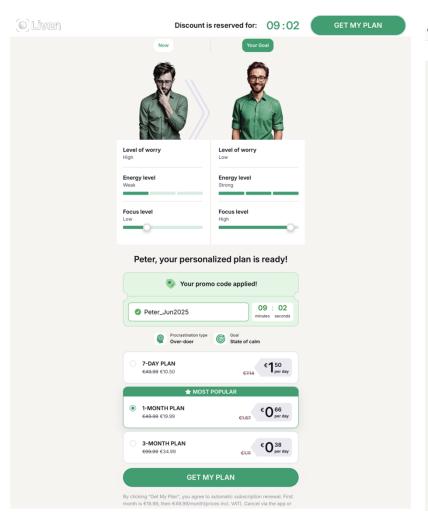
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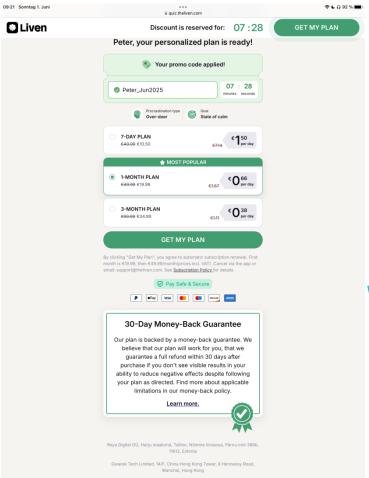
Example on the right: used by dubious company pretending to coach students

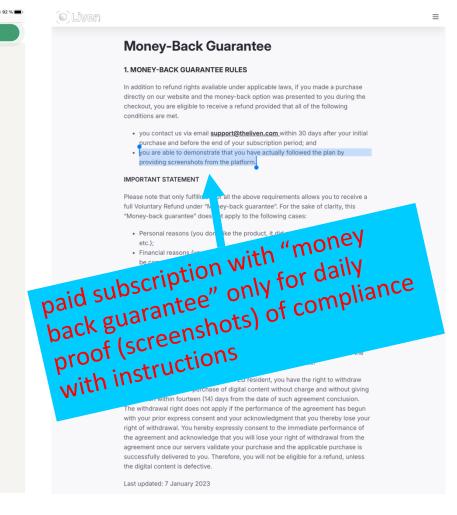




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Photo on the left from 2011 (by Getty Images/Corbis)



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- Digital dependency Should digital platforms face legal penalties for designing addictive features that exploit human psychology (e.g. gambling)?
  - **Negative:** Digital platforms exploit our propensity for dependency (e.g. instant gratification), draining mental energy and fragmenting attention, weakening real-world relationships.
  - **Positive:** Requiring platforms to disclose addictive design features can empower users to make informed choices, reducing dependency while fostering mindful engagement.
- Empathy erosion Could humans talking to AI ever legally qualify as a protected form of human interaction (if it erodes our ability to empathize with real people)?
  - **Negative:** Digital communication erodes empathy by stripping away emotional nuance, undermining our ability to truly understand others, and mere digital literacy may not fully restore this connection.
  - **Positive:** Data privacy laws requiring AI to clearly identity itself in interactions may preserve authentic human empathy, ensuring a conscious choice.
- Al and human interactions: Would you prefer a medical appointment with a human in 6 months or an immediate appointment with Al?
  - **Negative:** For instance, medical appointments and AI-driven therapy risks breaching data privacy laws and lacks the emotional depth of human interaction, potentially undermining trust in health services.
  - **Positive:** In medical contexts, AI offers immediate, accessible support, helping users (e.g. initiate treatment or gain self-awareness and anticipate behavioral outcomes), if regulated (e.g. for privacy).



José Miguel Lucas

PhD Student
Faculty of Law
University of
Coimbra



- Stultification Should Government mandate some reforms to protect critical thinking from (Aldriven) intellectual stagnation?
  - **Negative:** Over-reliance on AI for cognitive tasks threatens critical thinking, fostering intellectual stagnation, as companies profit from simplified consumer behaviors, as noted in "Consumed" (Benjamin Barber, 2008).
  - **Positive:** Legal incentives compelling tech firms to fund programs promoting critical thinking and creativity can counteract stultification, fostering intellectual vitality.
- Human oversight As AI learns to mitigate biases and allies to robotics, will human oversight become obsolete, and what will humans do (professionally)?
  - **Negative:** Over-reliance on AI for bias correction and task automation risks legal loopholes, potentially marginalizing humans and disrupting social stability without robust human oversight laws.
  - **Positive:** Adaptive legal frameworks, including mandatory bias audits and labor laws prioritizing human-centric roles like creativity and caregiving, can ensure some humans tasks and AI remains accountable.
- Future of education with AI: If AI replaces teachers, should laws enforce uniform AI teaching standards, or should diversity in AI-driven education be encouraged?
  - Negative: Uniform AI-driven education risks eroding cultural and pedagogical diversity, as well as human interaction, as well as lax data privacy laws could expose sensitive student data to misuse.
  - **Positive:** All can democratize education by offering personalized learning, supported by legal frameworks ensuring data privacy and equitable access for all students.



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The Human Cost of Hyperconnectivity - Digital Dependency Slide 1: The Human Cost of Hyperconnectivity - Digital Dependency Empathy Erosion & Virtual Intimacy

• "Digital platforms from large companies try to colonize our attention."

Negative:

Constant pings = fractured focus

Productivity ≠ 24/7 availability

■ Constant pings = fractured focus

Mental health decline from endless engagement loops

■ Productivity ≠ 24/7 availability

Positive (Potential):

Tools for empowerment & access

Flexibility in communication, work, and

learning

Awareness rising: digital detox, focus

apps, tech minimalism



András Horváth
Pazmany
University

#### Key Questions:

Can we reclaim aftention as a human right in the age of distraction?

Where does digital convenience end and psychological captivity begin?

How and where do we draw healthy boundaries in a "always-on" world?



# VENICE 2025

- Emotional Disconnect in a Connected World
  Slide 1: The Human Cost of Hyperconnectivity Digital Dependency
  Empathy Erosion & Virtual Intimacy
- · "There is mo training data for real emotions."
- Negative:
  Emojis replace emotional nuance
- Constant pings = fractured focus
   Relationships become shallow, transactional
- Atminiter feelings but doesn't understand them

The tools are not neutral. They are designed with intent — and that intent matters.  $\rightarrow$ 

People must learn to use digital platforms consciously, not be used by them.

Positive (Potential):

Tech can support connections across distance

Virtual spaces for mental health, community support

Opportunity to relearn empathy in digital form

Mental health decline from endless engagement loops

#### **Key Questions:**

- Are we becoming emotionally illiterate in a world of emojis and reactions?

  Can virtual intimacy ever replace real-world emotional connection?

  Are we designing digital technologies for human flourishing or just for engagement?
- Tools for empowerment & access



## **VENICE 2025**

- Adaptability as a need
- Awareness and Caution are different in natural vs digital communication
- Our society is changing, our behavior should, too!
- Technical Adaptability vs Technical Reluctance vs Extra effort (and Stress) vs Complexity
- Petre Dini IARIA

- Uninformed (Ignorance) and Informed (hesitation)
- Hesitation and concerns on personalized cookies vs accept all
- Download apps with unknown redirections (hides links), connecting through unknown tools

#### Social/Behavioral Adaptation

- Digitally induced fatigue, when communicating in a digital environment (cognitive sensory are different)
- Allophones are more hesitant in digital space (volatile narrative in natural communication vs permanent digital records)
- Communication gestures and etiquette have different stressing factors in natural vs digital environments.

#### Communication Awareness and Communication Literacy

- Selection of communication mode might differ (negative vs. positive news) as perception might differ
- Watching the tonality, mood, colloquial vs corporate styles are different between natural and digital communications
- Being sensitive to aloofness, empathy, unintended harms (sometimes tacit) add stress to digital communication





# THE STAGE IS YOURS