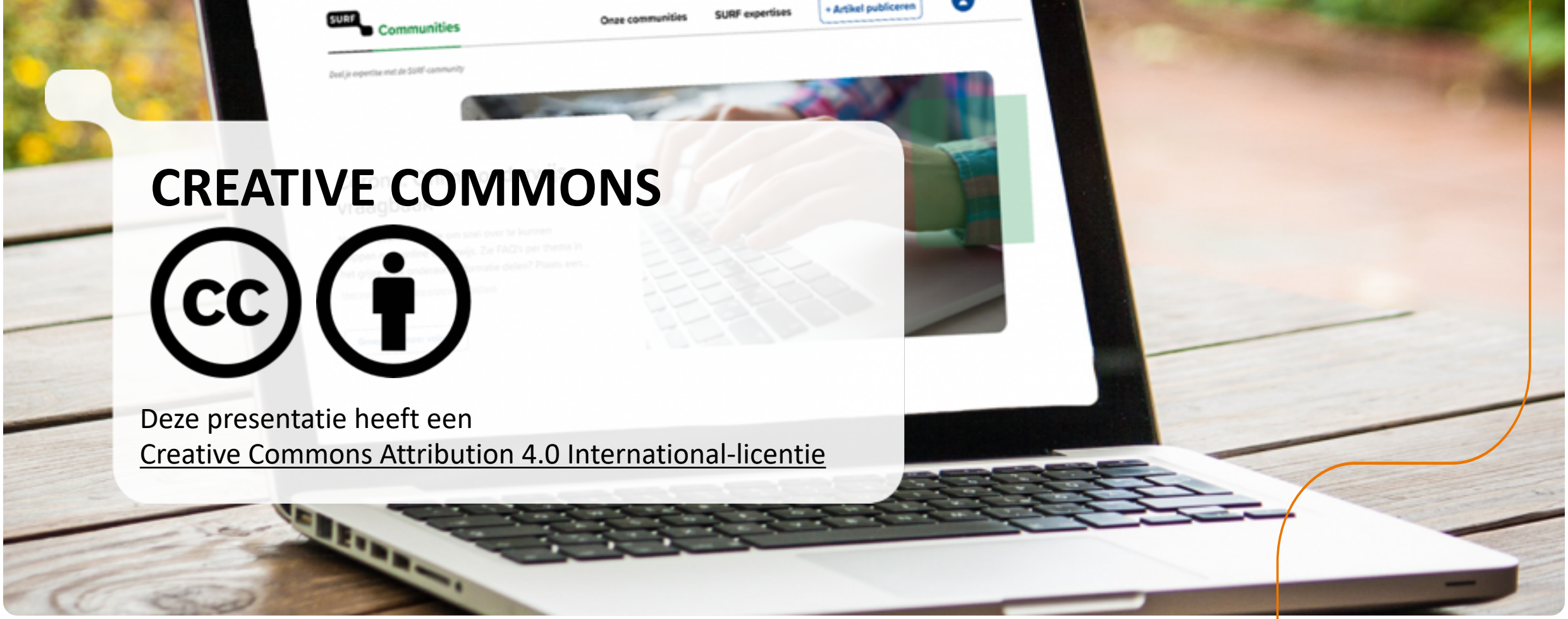


CREATIVE COMMONS

CC-BY: **Hybrid virtual classroom** – Annie van den Oever – Rijksuniversiteit Groningen
30 oktober 2020

ECIO
Leren zonder belemmering

Versnellingsplan
Onderwijsinnovatie
met ICT

ComeniusNetwerk
de HogerOnderwijsVernieuwers

SURF

university of groningen

Experiences with Hybrid Learning on (Research) Master level.

Faculty of Arts, University of Groningen

Prof. Dr. A.M.A. Van den Oever, *Course Coordinator, Dept of Arts, Culture and Media*

N.R. Bruinsma & J. Hadfield - *Student Assistants*

Dr. H.J.A. (Hans) Beldhuis, leading the Educational Innovation and Research team

Research Master Level learning

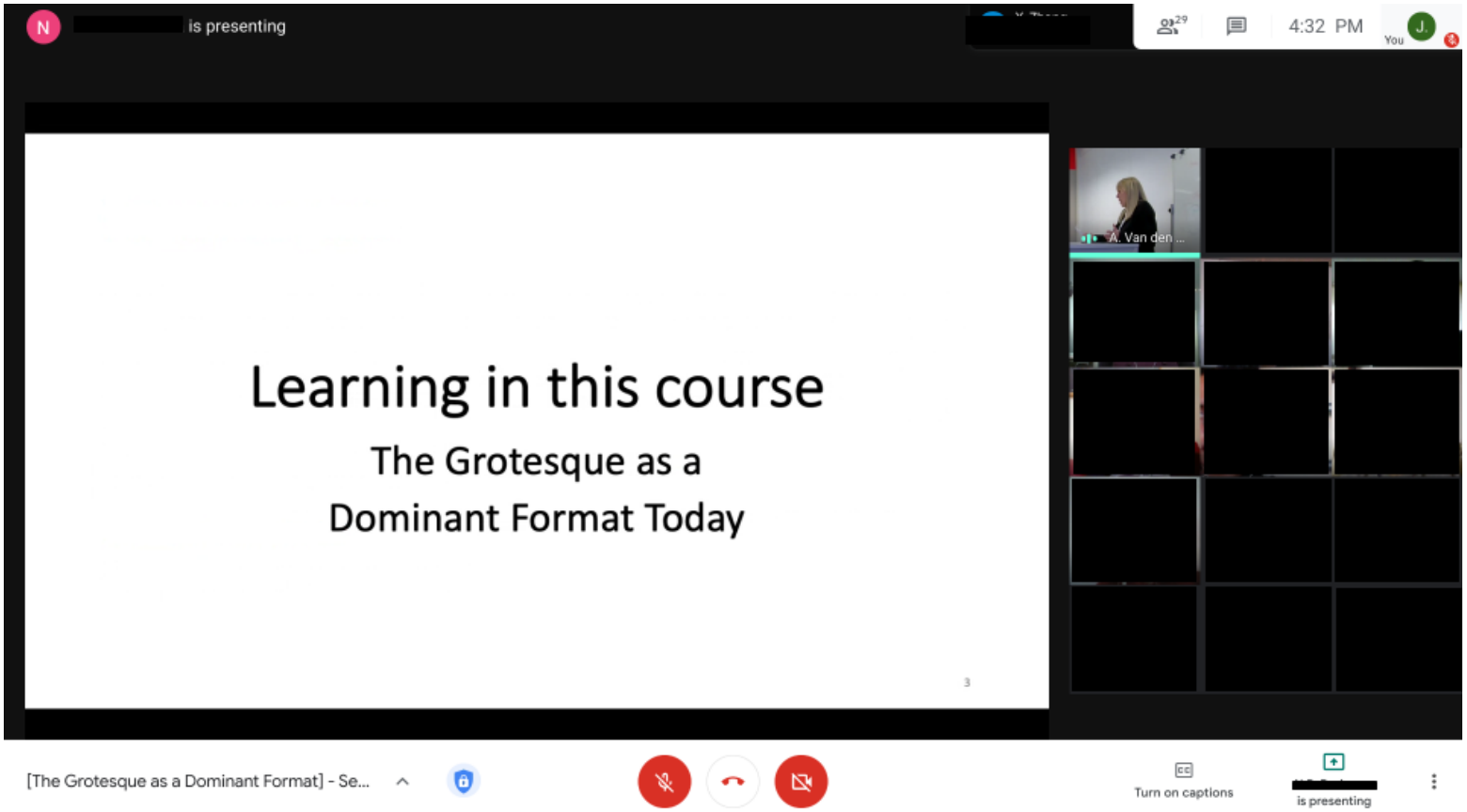
›Key are the hybrid meetings, in class and online

›Blackboard / Nestor are support tools used for:

1. Sharing course information before + after meetings
2. Special announcements
3. Weekly program including reading assignments

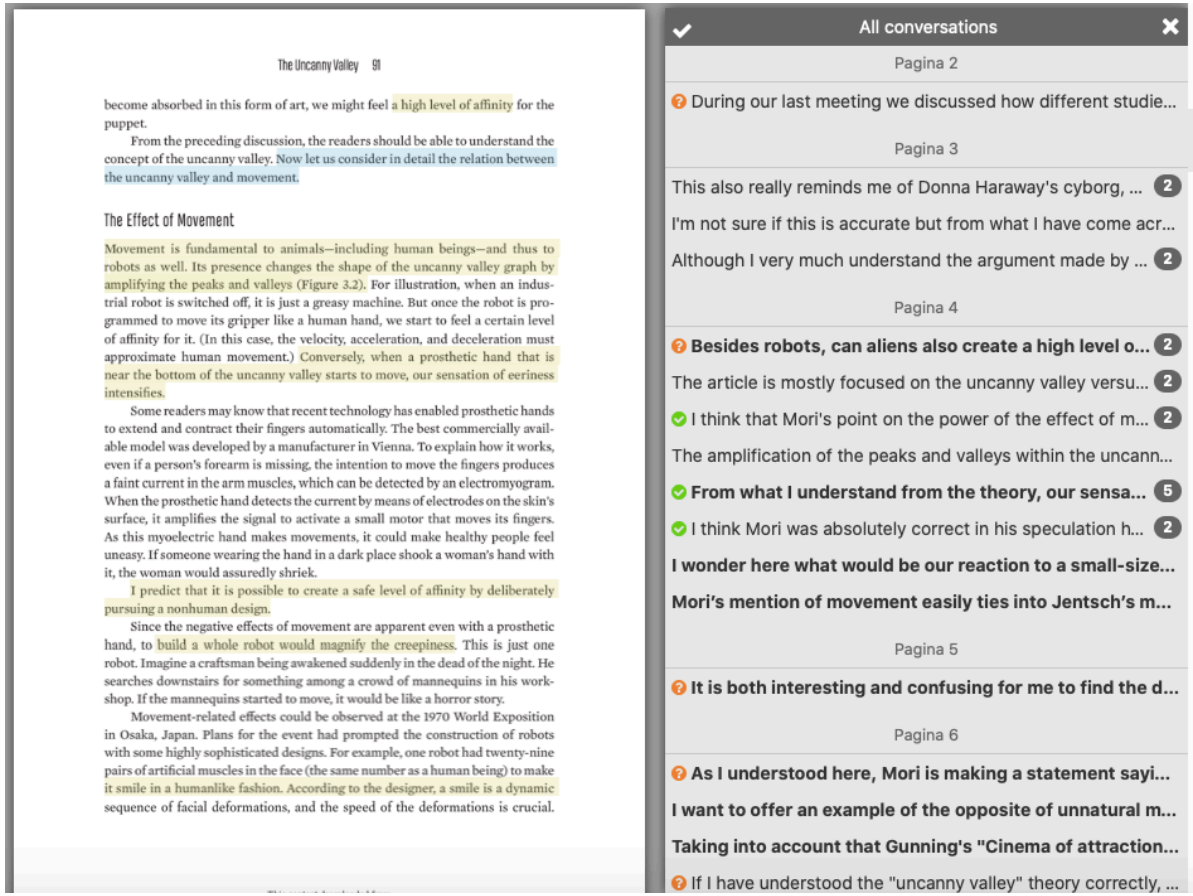
PowerPoints, shared in advance

›Presenting key points



Perusall, used in advance

- Didactic tool to encourage close reading and critical thinking
- For *interventions*, Q&A and dialogues



The Uncanny Valley 91

become absorbed in this form of art, we might feel a high level of affinity for the puppet.

From the preceding discussion, the readers should be able to understand the concept of the uncanny valley. Now let us consider in detail the relation between the uncanny valley and movement.

The Effect of Movement

Movement is fundamental to animals—including human beings—and thus to robots as well. Its presence changes the shape of the uncanny valley graph by amplifying the peaks and valleys (Figure 3.2). For illustration, when an industrial robot is switched off, it is just a greasy machine. But once the robot is programmed to move its gripper like a human hand, we start to feel a certain level of affinity for it. (In this case, the velocity, acceleration, and deceleration must approximate human movement.) Conversely, when a prosthetic hand that is near the bottom of the uncanny valley starts to move, our sensation of eeriness intensifies.

Some readers may know that recent technology has enabled prosthetic hands to extend and contract their fingers automatically. The best commercially available model was developed by a manufacturer in Vienna. To explain how it works, even if a person's forearm is missing, the intention to move the fingers produces a faint current in the arm muscles, which can be detected by an electromyogram. When the prosthetic hand detects the current by means of electrodes on the skin's surface, it amplifies the signal to activate a small motor that moves its fingers. As this myoelectric hand makes movements, it could make healthy people feel uneasy. If someone wearing the hand in a dark place shook a woman's hand with it, the woman would assuredly shriek.

I predict that it is possible to create a safe level of affinity by deliberately pursuing a nonhuman design.

Since the negative effects of movement are apparent even with a prosthetic hand, to build a whole robot would magnify the creepiness. This is just one robot. Imagine a craftsman being awakened suddenly in the dead of the night. He searches downstairs for something among a crowd of mannequins in his workshop. If the mannequins started to move, it would be like a horror story.

Movement-related effects could be observed at the 1970 World Exposition in Osaka, Japan. Plans for the event had prompted the construction of robots with some highly sophisticated designs. For example, one robot had twenty-nine pairs of artificial muscles in the face (the same number as a human being) to make it smile in a humanlike fashion. According to the designer, a smile is a dynamic sequence of facial deformations, and the speed of the deformations is crucial.

All conversations

Pagina 2

During our last meeting we discussed how different studie...

Pagina 3

This also really reminds me of Donna Haraway's cyborg, ... 2

I'm not sure if this is accurate but from what I have come acr...

Although I very much understand the argument made by ... 2

Pagina 4

Besides robots, can aliens also create a high level o... 2

The article is mostly focused on the uncanny valley versu... 2

I think that Mori's point on the power of the effect of m... 2

The amplification of the peaks and valleys within the uncann...

From what I understand from the theory, our sensa... 5

I think Mori was absolutely correct in his speculation h... 2

I wonder here what would be our reaction to a small-size...

Mori's mention of movement easily ties into Jentsch's m...

Pagina 5

It is both interesting and confusing for me to find the d...

Pagina 6

As I understood here, Mori is making a statement sayi...

I want to offer an example of the opposite of unnatural m...

Taking into account that Gunning's "Cinema of attraction...

If I have understood the "uncanny valley" theory correctly, ...

Hybrid meetings: in class and online

- Level of students: Master / Research Master
- Average: 26 students online, 22 onsite
  - Students see each other on the large screen and via class cameras

- Student assistants
  - Technical support for (online) students and professor
  - Moderate questions/activities online

- Google Meet
  - Option to share audio and video
  - Option to view many faces

Flipping the classroom

- Perusall
  - Used for unpacking ‘knowledge’ & know-how
  - Discussions initiated by students before + after class

- Oral presentations prepped by 3-4 students
  - Presented online or onsite during the meetings
  - Focus on ‘unpacking’ key concepts in class

- Plenary Discussion between students onsite + online

Overview problems + solutions

>**Problem**	> **Solution**
1. Perusall aversion	Focus on digital dialogues
2. Teaching online	Honor preference for hybrid
3. Conventional	Innovative onsite classrooms
4. Camera off	Greeting rituals on camera
5. Break out groups	Honor preference for Plenary
6. Digital challenges	Digital support: assistants
7. Educational challenges	Educational support

Findings and recommendations

- **Be open about problems:** discuss + share the problems
- **Make students 'shared-problem owners'**: speak with students about their learning curve and intellectual journey
- **Focus on learning,** not on assessing + grading (= prioritize formative to summative assessment)

- **Experiment** with possible solutions for problems
- **Use active learning** and flipping the classroom methods
- **Address them as a group**: plenary discussions proved
- **Address them personally:** how can one make students feel seen and heard?

- **See Biesta's model**

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