

21st International Conference on Engineering and Product Design Education 2019

13th September 2019, Dep. Of Design, Manufacture and Engineering Management
University of Strathclyde, Scotland

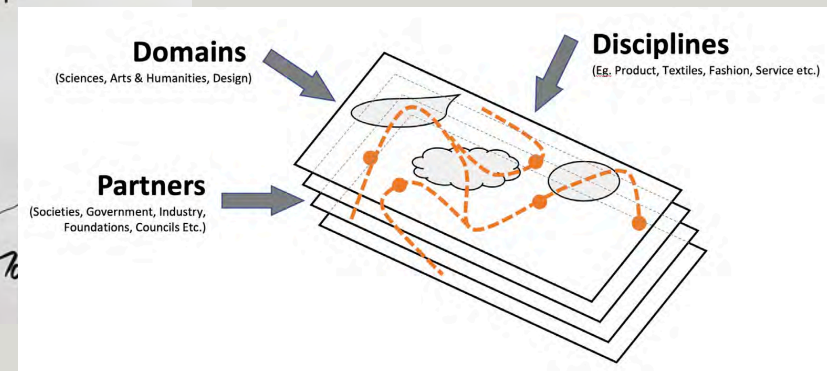
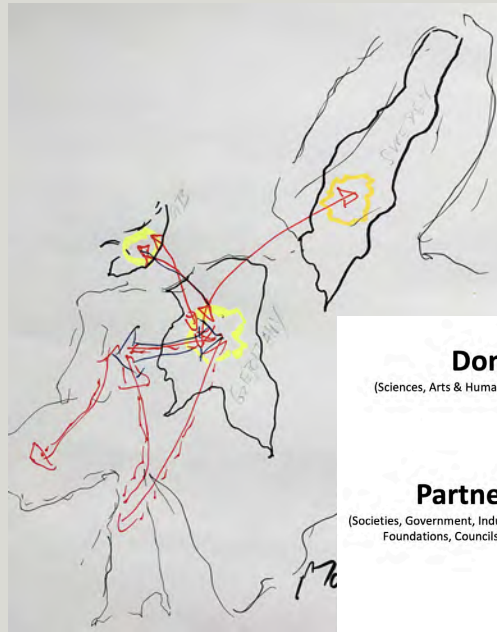
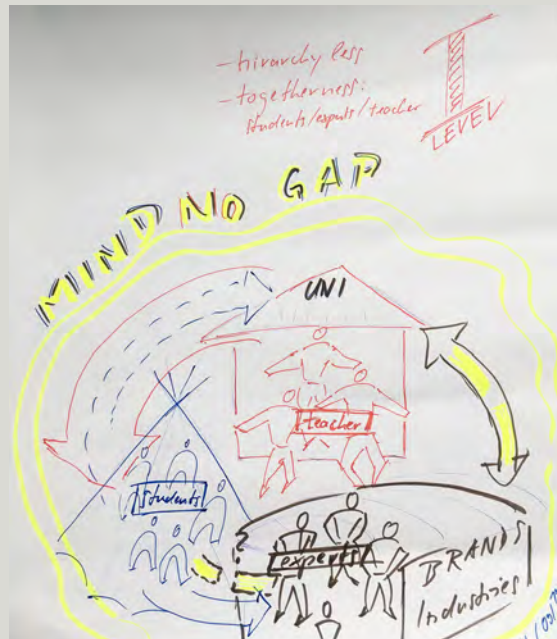
EUROPEAN Designers DRIVING RANGE
Innovative Landscapes for a tangible, non-hierarchical
learning space within a material and immaterial togetherness

together: Prof. Dr. Marina-Elena Wachs + Prof. Ashley Hall PhD

EUROPEAN Designers DRIVING RANGE

THESIS:

Europeans Designer Driving Range' explores a concept of knowledge sharing in non-hierarchical, cross-cultural learning landscapes to reflect on needs for tomorrows' creative playground.



M. Wachs / A. Hall at EPDE Conference 2019, University of Strathclyde, UK

EUROPEAN DRIVING RANGE

Innovative Landscapes for a tangible, non-hierarchical learning space within a material and immaterial togetherness

OVERVIEW

- _ Thesis about Designer Driving Range
- _ Industrial design landscapes in relation to ...
- _ ... Design heritage - Germany and Great Britain
- _ ... Education examples - linear and decentralized
- _ Future: cross-cultural - non- hierarchical,...
- _ ... Pan European TOGETHER - interlinked design playground

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GERMAN context

- Germany Design Yesterday are...
- Object based - Designers based - Industrial based - Process based
- Since 1980s design management and theoretical reflection came into greater interest in design theory...
- behind...man made...maker spaces...thinkers of linear process...
- Remembered by brand names / designer names: to mention a few: Adidas / Porsche / Schiesser / Braun /... German Heritage in Industrial Design Konstantin Grcic, Stefan Dietz, Dieter Rams, Jil Sander by Peter Schmidt
- Werkkunstschulen, Bauhaus and others build the bridge to industry and serial production vice versa university education... In a linear process...

From a linear process ...

Idea – prototype – evaluation – construction / process details – production – transport – selling ...
the product / concept – evaluation again....

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EUROPEAN context

- Europe / global tomorrow ...
- Challenges... **transdisciplinary interlinked** Design schools
- Design councils engagement in „education of the folk“
- Design institutions / foundations to discuss and engage together
- Entrepreneurial engagement...
- Together in non hierarchical structures
- ... In a DECENTRALIZED process...

Nowadays / in the future:

.....non linear processes...to solve design problems...not only object based...circular and decentralised...
...cross-cultural non-hierarchical... beyond culture...

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UK context

- Industrial revolution introduced art colleges and schools of design in the UK from the 1830's
- Focus was firmly on design 'serving' industrial needs
- Design was very much at the end of the process humanising machines
- Robin Darwin had proposed bridging domains of design and engineering as early as 1945
- 1980 the first industrial design engineering postgraduate course is set up

Projects UK driven – non hierarchical interdisciplinary cross-cultural

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The challenges

- Shift of level from delivering education from undergraduate to postgraduate to a focus on including wider disciplinary perspectives
- Question the value of traditional design skills and their ongoing relevance verses cross disciplinary design led innovation skills.
- When students graduate from engineering design without an ability to draw, yet express themselves creatively though code
- Technologies like AI alongside biotechnology and nanotechnology become more intangible as a result of their material scale challenging long held traditional tangible models
- Cultural behaviour in design and decolonising 'west knows best' into compatibility with other cultures and philosophies
- Creative methods potentially limiting global design variety

Projects UK driven – non hierarchical interdisciplinary cross-cultural

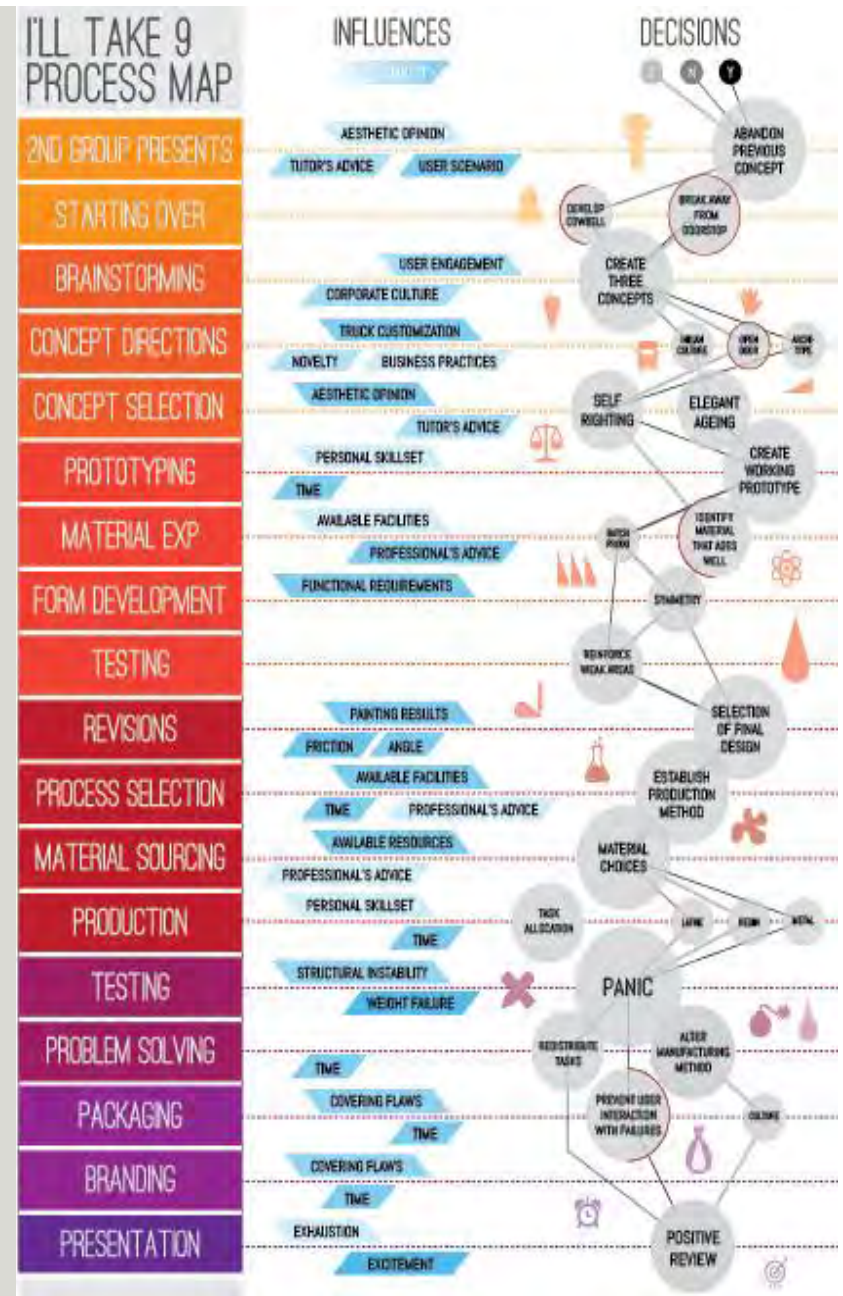
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Case Study 1: Miscommunication

- Miscommunications in early stages of interdisciplinary cross-cultural design project can lead to impactful innovation concepts
- Used a process of c-sketching and analysed group emotional journeys that were compared to creative outputs
- These were then cross referenced across the entire sample (40+) discovering that ambiguous misunderstanding leads to differences, which inspired unintended innovations



Projects UK driven – non hierarchical interdisciplinary cross-cultural

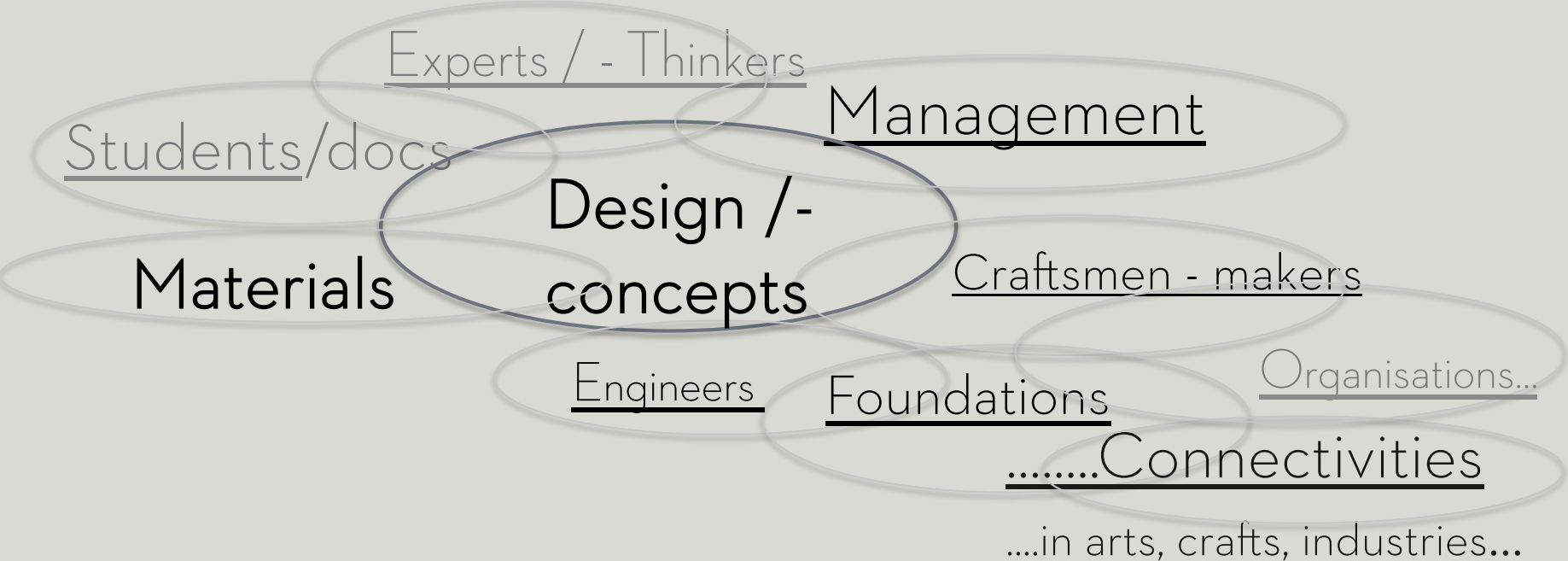
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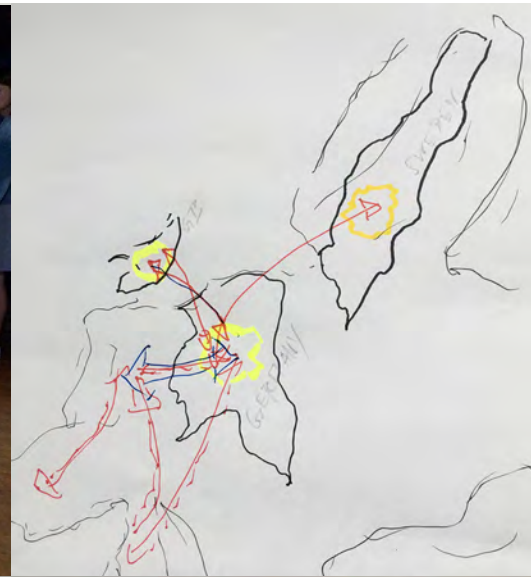
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partner...

DESIGN DRIVER IN INDUSTRY + EDUCATION



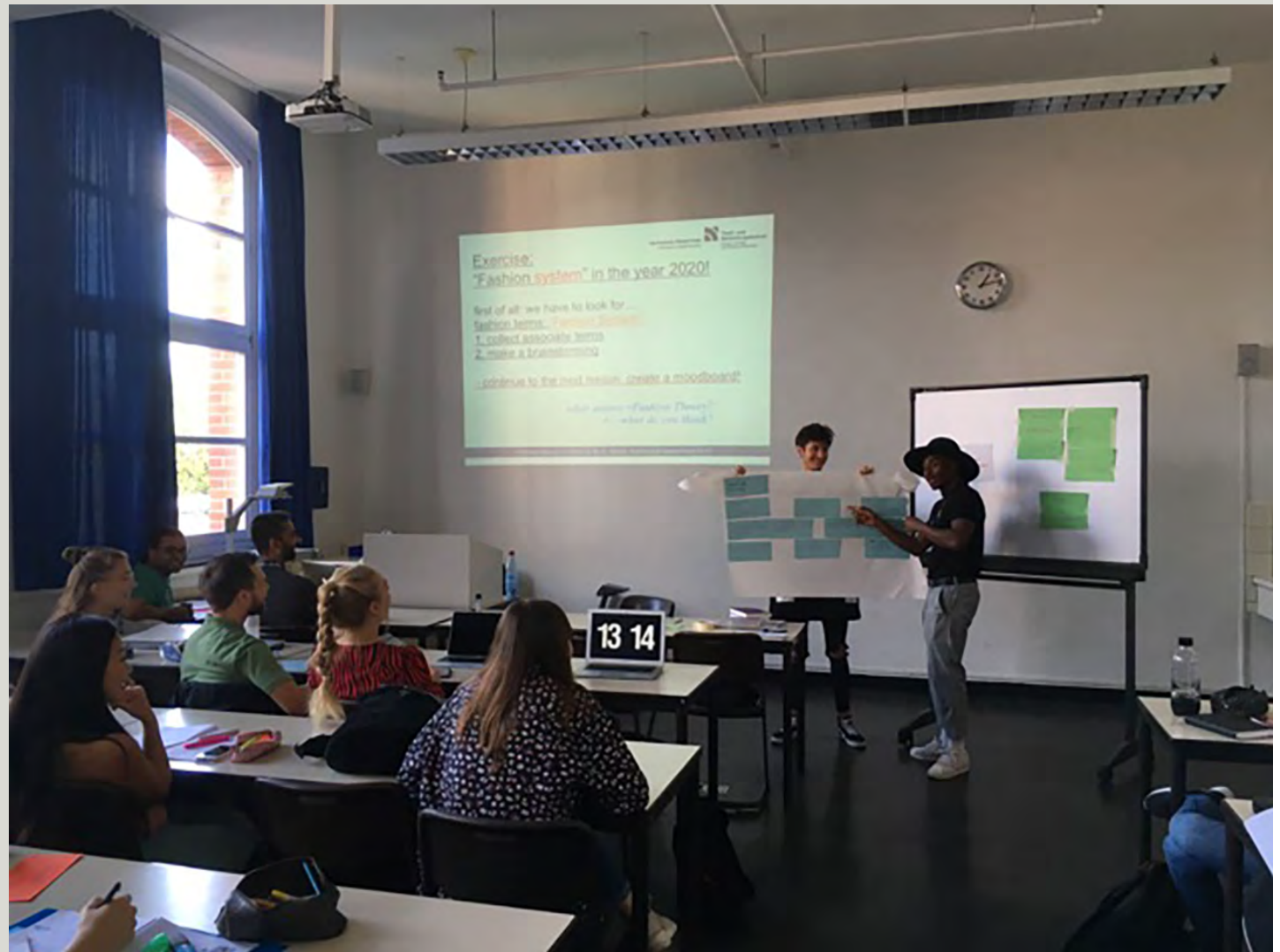
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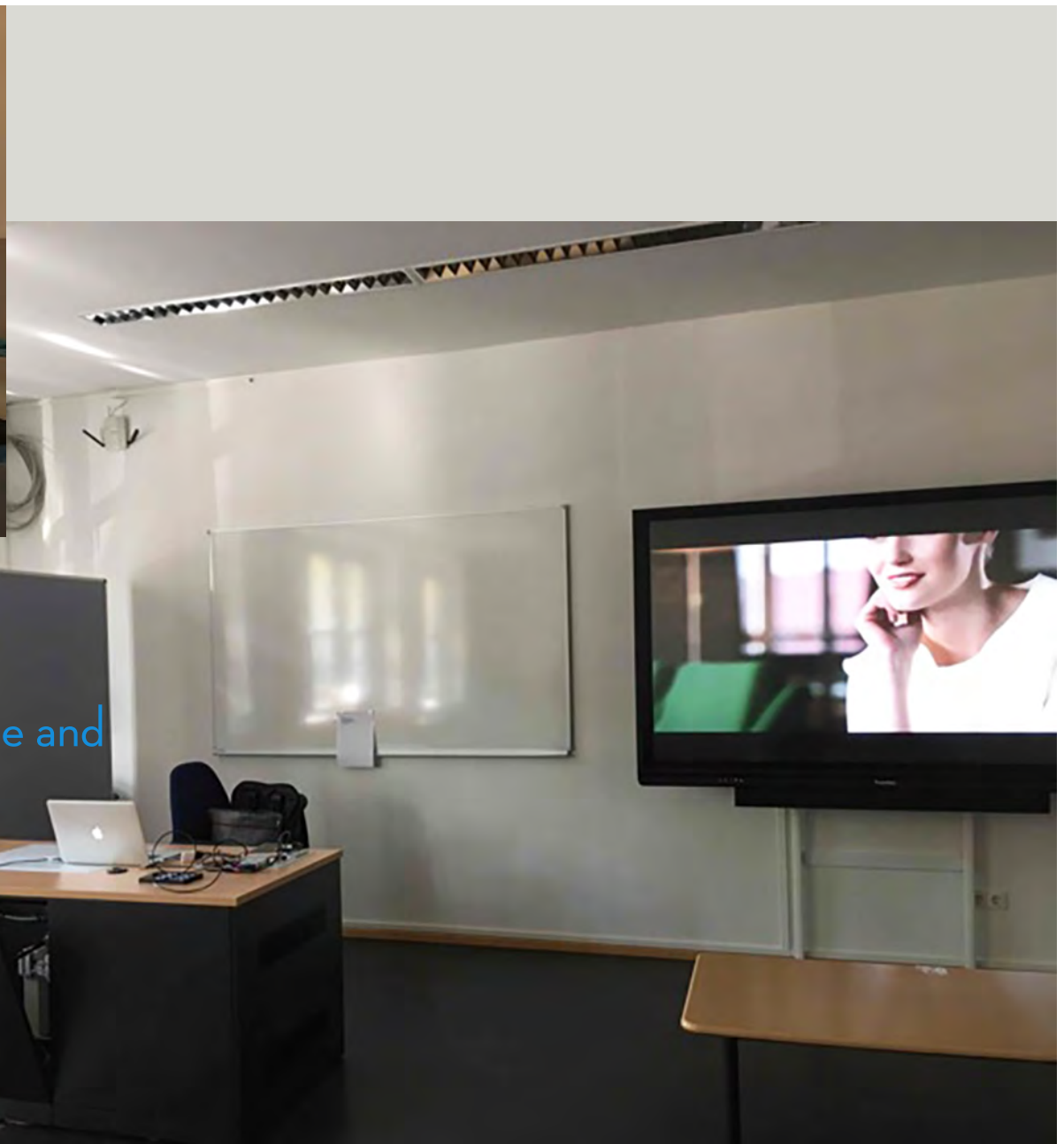
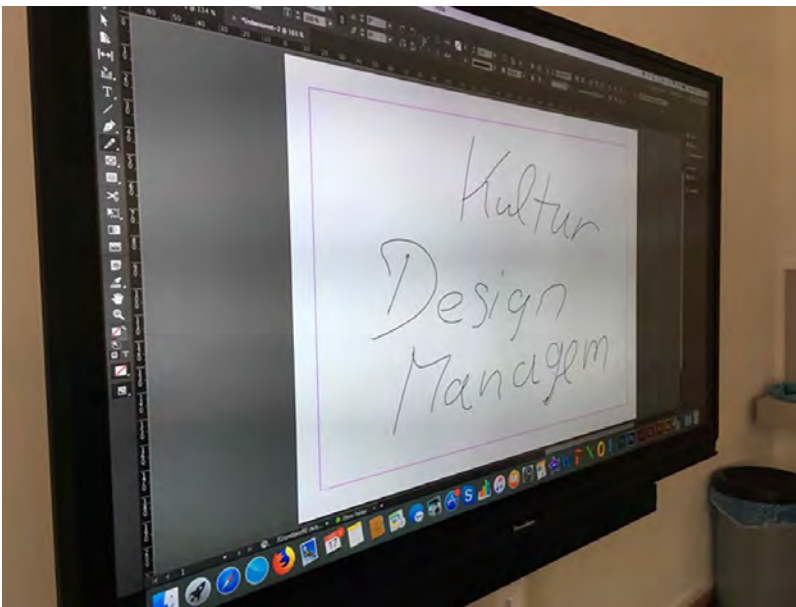
WorkshopWorkshop | >Light and textiles<, Charlotte Sjödel, William Franke, Oliver Heß

in Germany – non hierarchical interdisciplinary cross cultural
Project TEXTILE-POP MAY 2019© Prof. Dr. Marina-Elena Wachs

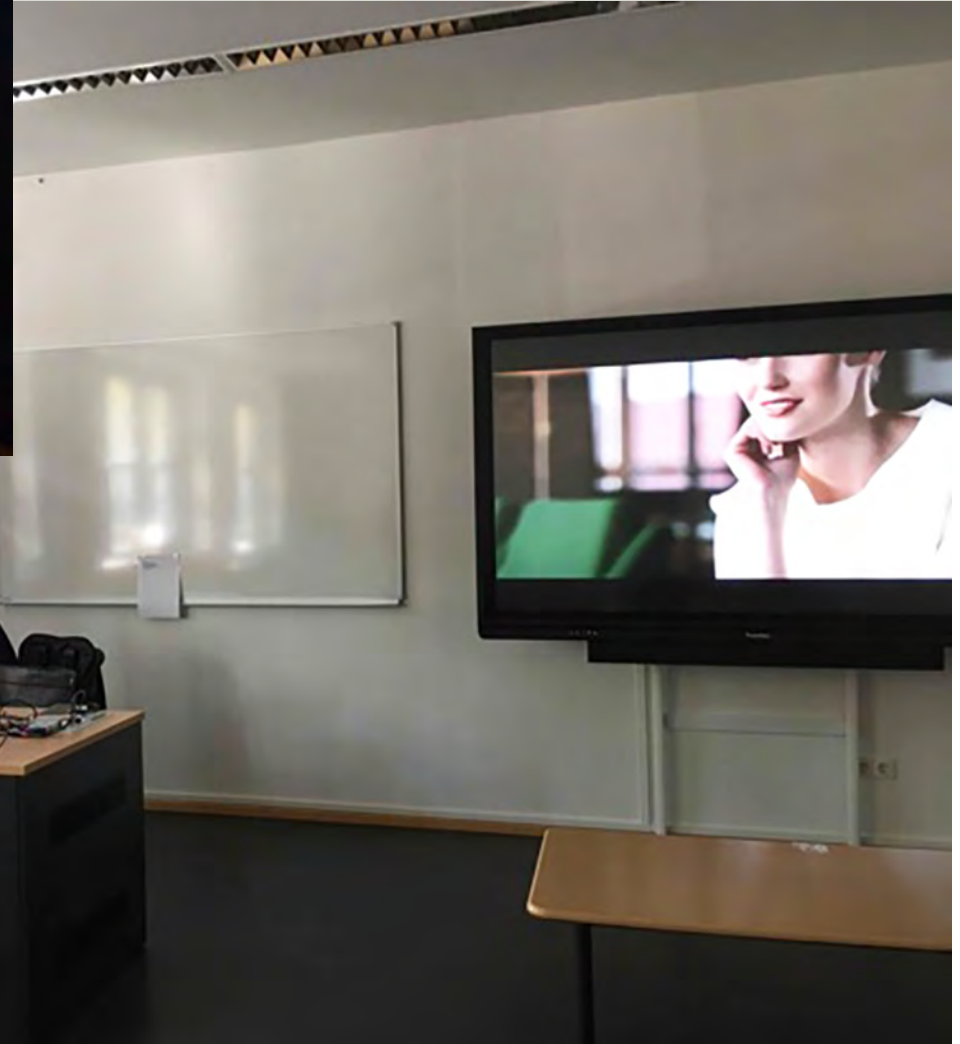
a linear process...
Scene from yesterday...



M. Wachs / A. Hall at EPDE Conference 2019, University of Strathclyde, UK



Interlinked design learning landscape and
a decentralizes process...
Scene from tomorrow...

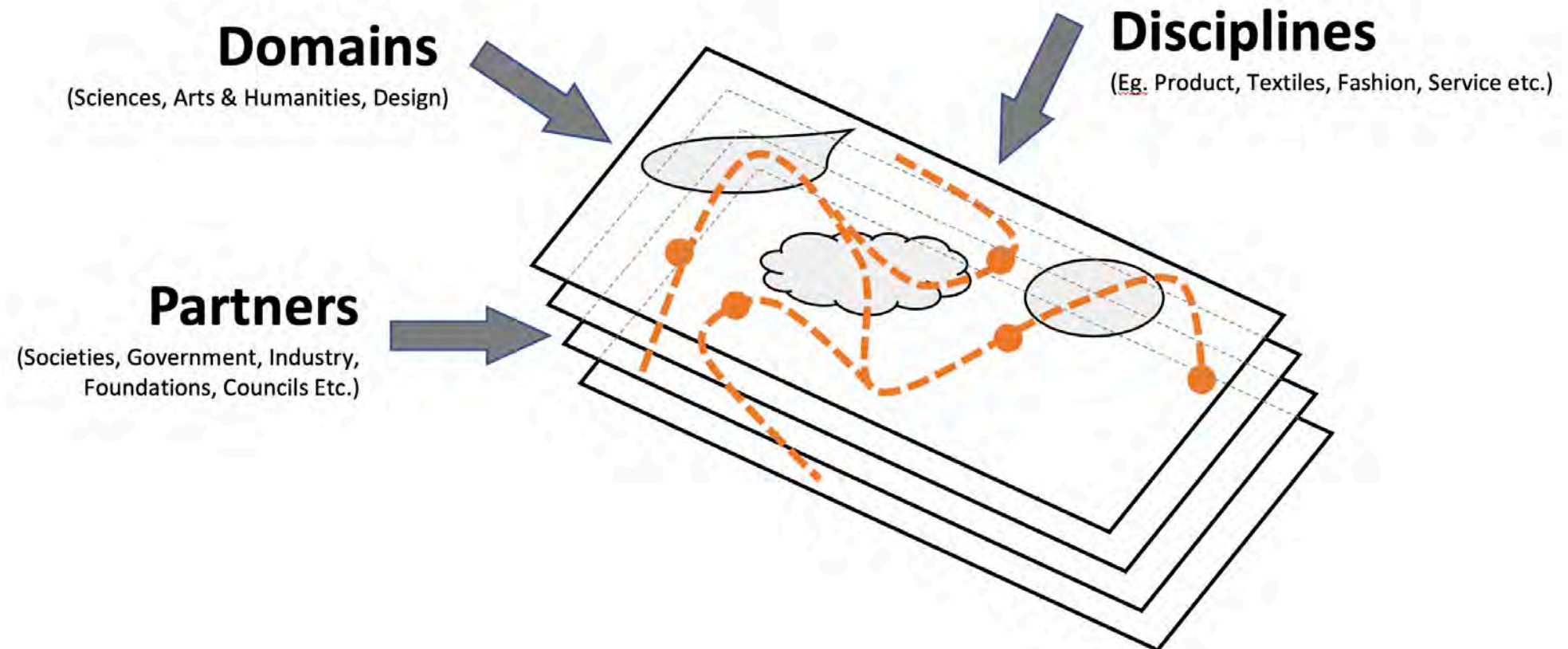


A decentralized process...
Scene for tomorrow...

- in(t)erlinked
- together
- digital cross-cultural
- non hierarchical...

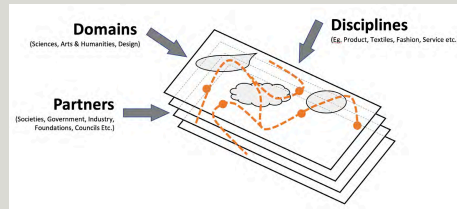
DRIVING RANGER ... Design Driver

Marina-Elena Wachs and Ashley Hall



M. Wachs / A. Hall at EPDE Conference 2019, University of Strathclyde, UK.

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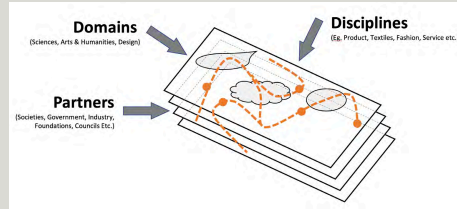


Needs in industrial design engineering areas after 4th Ind. Revolution:

DISCIPLINES – DOMAINS – PARTNERS means...

- ... non hierarchical structures in design engineering + design education
- ... interactive projects and integration of digital AND analogue tools
- ... interdisciplinary and cross-cultural solving tasks together
- ... geopolitical changes / working conditions evoke interacting design education
- ... everybody could participate on sustainable living conditions
- ... pan European design education driven by Designers (*drivers*) Range!

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After EPDE Conference 2019: the need for visionary learning landscapes:

- participate open minded at „workshop projects“ with all parties: students – teacher – experts +... cross cultural
- create „fearless spaces“ to work in – together – to have space to failure
- create interlinked analogue and digital connected learning landscapes
- ...landscapes for „observers“ (re/cognition) and other skills to trigger
- to go on in „self evaluation methods“ for students to create the own trip...

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More: [link...?](#) Which one?

Prof. Dr. Marina-Elena Wachs + Prof. Ashley Hall PhD

Thank you so much! - designing together!