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Appendix A - Project Brief





(!)

IDE Master Graduation

Project team, Procedural checks and personal Project brief

This document contains the agreements made between student and supervisory team about the student's IDE Master Graduation Project. This document can also include the involvement of an external organisation, however, it does not cover any legal employment relationship that the student and the client (might) agree upon. Next to that, this document facilitates the required procedural checks. In this document:

- The student defines the team, what he/she is going to do/deliver and how that will come about.
- SSC E&SA (Shared Service Center, Education & Student Affairs) reports on the student's registration and study progress.
- IDE's Board of Examiners confirms if the student is allowed to start the Graduation Project.

USE ADOBE ACROBAT READER TO OPEN, EDIT AND SAVE THIS DOCUMENT

Download again and reopen in case you tried other software, such as Preview (Mac) or a webbrowser.

STUDENT DATA & MASTER PROGRAMME

initials <u>C.S.</u> given name <u>Caroline</u>

Save this form according the format "IDE Master Graduation Project Brief_familyname_firstname_studentnumber_dd-mm-yyyy". Complete all blue parts of the form and include the approved Project Brief in your Graduation Report as Appendix 1!

nme (only select the options that apply to you):
() IPD () SPD
(give date of approval)
Honours Programme Master
Medisign
Tech. in Sustainable Design

Entrepeneurship

SUPERVISORY TEAM **

family name Häger

student number 4974816

street & no.

zipcode & city

country

email

Fill in the required data for the supervisory team members. Please check the instructions on the right

** chair ** mentor	Paul Hekkert Jasper van Kuijk	dept. / section: dept. / section:	HCD - DA HCD - AED	Board of Examiners for approval of a non-IDE mentor, including a motivation letter and c.v
2 nd mentor	Peter Lloyd			Second mentor only
	organisation: Design Research Societ	ty		applies in case the assignment is hosted by
	city: London	country: <u>UK</u>		an external organisation.
comments (optional)				Ensure a heterogeneous team. In case you wish to include two team members from the same section, please explain why.



Procedural Checks - IDE Master Graduation

APPROVAL PROJECT BRIEF

To be filled in by the chair of the supervisory team.



chair Paul Hekkert date 20 - 03 - 2021 signature

CHECK STUDY PROGRESS

To be filled in by the SSC E&SA (Shared Service Center, Education & Student Affairs), after approval of the project brief by the Chair. The study progress will be checked for a 2nd time just before the green light meeting.

Of which, taking the conditional requirements	<u>27</u> _27	_ EC _ EC			1st year master courses passed ing 1st year master courses are:
List of electives obtained before the third semester without approval of the BoE					
name C. van der Bunt	date	<u>22 - (</u>	03 - 2021	signature	C. van Digitally signed by C. van der Bunt Date: 2021.03.22 Bunt 1:11:23

FORMAL APPROVAL GRADUATION PROJECT

To be filled in by the Board of Examiners of IDE TU Delft. Please check the supervisory team and study the parts of the brief marked **. Next, please assess, (dis)approve and sign this Project Brief, by using the criteria below.

- Does the project fit within the (MSc)-programme of the student (taking into account, if described, the activities done next to the obligatory MSc specific courses)?
- Is the level of the project challenging enough for a MSc IDE graduating student?
- Is the project expected to be doable within 100 working days/20 weeks?
- Does the composition of the supervisory team comply with the regulations and fit the assignment?

Procedure:	APPROVED	NOT APPROVED
- planning is too done in the 0 w		20 weeks, work is been

name Monique von Morgen	date <u>29 - 03 - 20</u> 2	21 signature	
IDE TU Delft - E&SA Department /// Graduation p	roject brief & study overview	v /// 2018-01 v30	Page 2 of 7
Initials & Name <u>C.S.</u> Häger	4847	Student number 4974816	
Title of Project The hybrid conference of the	e future		





The hybrid conference of the future

project title

Please state the title of your graduation project (above) and the start date and end date (below). Keep the title compact and simple. Do not use abbreviations. The remainder of this document allows you to define and clarify your graduation project.

start date <u>15 - 03 - 2021</u>

10 - 08 - 2021

end date

INTRODUCTION **

Events such as conferences, meetings or classes in which people come together to present, collaborate, discuss, or exchange information, used to be unimaginable to facilitate without actually meeting in person. With the disruptive pandemic and increasing environmental issues, the trend towards virtual events is growing (Mayra, 2020). People have become accustomed to the idea that it is not always necessary to travel and attend events face-to-face (Linthicum, 2020). Therefore, for the future, it is of value to develop hybrid concepts that enable attendance to such events physically and virtually whilst creating interactions that complement this format.

The Design Research Society (DRS) is an international member society with the intention of enabling members to promote research in the field of design. Thus, members of this organization come from academic and/or professional backgrounds in design.

Every two years the DRS is hosting a conference to share and present latest design research, to introduce new design fields and to network (DRS, 2021). Every edition of the conference is held in a different city throughout the world and it is structured with events such as speaker keynotes, paper discussion sessions, engaging workshops or conversations that are spread over four days. Previously held conferences consisted of different spaces for these events to take place (see figure 1).

For the future, the DRS would like to implement a hybrid concept that enables the members to attend both online and face-to-face.

The project comes with the following stakeholders involved:

The DRS together with their chair, Peter Lloyd, and the DRS2022 conference team operate as the client in this project. They are able to provide me with feedback, information on the organization and connect me with other important stakeholders for the research. Among these stakeholders are attendees from previous DRS conferences as the audience and speakers. Furthermore, stakeholders outside of the DRS can include technicians and online platform developers providing me with insights in the technical aspects of organizing hybrid events and creating opportunities of collaboration. In conjunction with the research, I will attend some of the key DRS planning meetings, work alongside the DRS conference team, and talk to other stakeholders involved.

Because of the increased importance of virtual attendance especially for events such as conferences, there is great research and design opportunities that need yet to be explored. Existing interventions of hybrid events and new design solutions can help blur the lines between reality and virtuality while making these meetings more productive for all people involved (Linthicum, 2020). Potentially even more productive than a meeting entirely held in person. By focusing on how to create a new conference format with integrating virtuality (see figure 2), opportunities in redesigning the overall interaction space emerge. A well designed hybrid conference will give us the possibilities to save resources in terms of costs and time, as well as lower the carbon footprint. Furthermore, there is great potential to explore, develop and incorporate new technology to help creating the desired interactions for these conferences.

This project will be specified based on the needs of the DRS and not for conferences and events in general. Solutions could be applied to other areas but might need adjustments. Furthermore, the limitations that we have to face in the future due to the pandamic are not yet clear. Especially during the prototyping phase, I might need to take into consideration that the face-to-face interactions may not be able to be tested.

space available for images / figures on next page

IDE TU Delft - E8	&SA Depai	rtment /// Gradua	ntion project brief	& study overview	v /// 2018-01 v30	Page 3 of 7
Initials & Name	C.S.	Häger		4847	Student number 4974816	
Title of Project	The hyb	orid conference	of the future			

Personal Project Brief - IDE Master Graduation

introduction (continued): space for images



image / figure 1: A view of the speaker and audience at the opening ceremony of the DRS conference in 2016

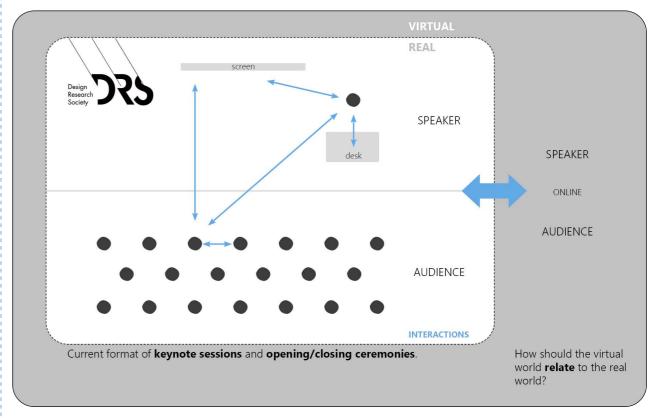


image / figure 2: A simplified visual of a current format with interactions. What is the relation to the virtuality?

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Initials & Name <u>C.S.</u>	Häger	4847	Student number 4974816	
Title of Project The hyl	brid conference of the future			



Personal Project Brief - IDE Master Graduation

PROBLEM DEFINITION **

Limit and define the scope and solution space of your project to one that is manageable within one Master Graduation Project of 30 EC (= 20 full time weeks or 100 working days) and clearly indicate what issue(s) should be addressed in this project.

The past solution space of the physical DRS conference offered great opportunities for the facilitation of discussions, exchanging information and for its members to connect. While there is certainly value seen in face-to-face interactions, it also comes with costly consequences and negative effects on the environment. Members are required to travel and reserve a lot of time in their schedule, affecting the carbon footprint and leaving them with less freedom. In 2020, the conference was held entirely online, resulting in saving plenty of resources, but the quality of interactions was lacking. We are positioned at a tipping point with recent developments in climate change, inequalities, and pandemics, at which more online and hybrid events will take place (Strutt, 2021) and from which especially the DRS can benefit, due to their internationality. As the nature of conferences is changing, the DRS wants to address the different needs and act responsibly by offering a hybrid solution providing members with face-to-face and online interactions.

In order to design a hybrid conference, the scope of this project will lie in understanding the current and valuable interactions of the conference activities (paper presentations, workshops, panel discussions, keynotes, hallway talks or conference dinners) and consequently translate this into a future vision and tools that can be used. This means that the current valuable interactions should be maintained, new valuable interactions should be found, and an understanding of the technical solution space should be gained to support the future vision, resulting in the following subjects to be investigated: past conferences, physical and virtual attendee engagement and attendees' needs and values.

As a result, the conference becomes a multi-leveled system in which reality and virtuality is connected to support the dynamics of the conference, requiring investigation into the relation between attendees in reality and virtuality and how they can benefit from each other.

ASSIGNMENT**

State in 2 or 3 sentences what you are going to research, design, create and / or generate, that will solve (part of) the issue(s) pointed out in "problem definition". Then illustrate this assignment by indicating what kind of solution you expect and / or aim to deliver, for instance: a product, a product-service combination, a strategy illustrated through product or product-service combination ideas, In case of a Specialisation and/or Annotation, make sure the assignment reflects this/these.

Lwill design a number of proposals for the DRS conference in which it is feasible for participants to join either face-to-face or virtual. Furthermore, physical and virtual participants will be merged and interact with each other to support a productive and joyful event according to the goal of the conference. This requires research in the current format of the conference, understand participants' values and needs and understand relevant technology.

I am expecting to propose a new format for the DRS conference in form of a strategy that involves, for example a program, activity-formats and/or tools to complement and illustrate how the new opportunities of hybrid events in the future can be tackled, 5 years from now. My end-result should showcase the answer to the question of how the virtual and real world should experience the conference and how they should relate to each other resulting in a new outline of the future format compared to the current format outline, partly visible in figure 2. In addition to this, the types of interactions will be prototyped for testing and presentation purposes.

To enable the client to implement some of the solutions already at the DRS conference in 2022, I want to provide the client with several bridging solutions that can already be implemented and tested at the DRS2022 in Bilbao.

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Initials & Name C.S. Häger 4847 Student number 4974816

Title of Project The hybrid conference of the future



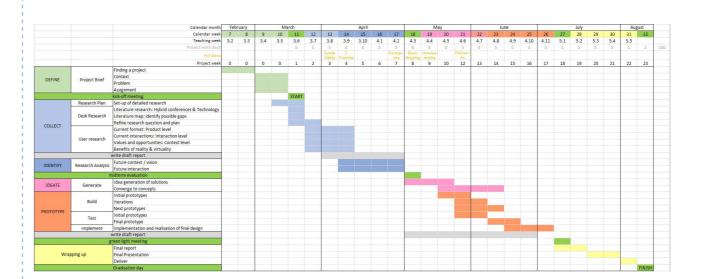
Personal Project Brief - IDE Master Graduation

PLANNING AND APPROACH **

the desired outcome.

Include a Gantt Chart (replace the example below - more examples can be found in Manual 2) that shows the different phases of your project, deliverables you have in mind, meetings, and how you plan to spend your time. Please note that all activities should fit within the given net time of 30 EC = 20 full time weeks or 100 working days, and your planning should include a kick-off meeting, mid-term meeting, green light meeting and graduation ceremony. Illustrate your Gantt Chart by, for instance, explaining your approach, and please indicate periods of part-time activities and/or periods of not spending time on your graduation project, if any, for instance because of holidays or parallel activities.

start date 15 - 3 - 2021 ____ end date



In my approach, I will use the VIP method (VIP Vision in Design, 2016) for collecting the data and identifying the problems and needs. This means, I will research about the past product, interactions, and context but also research about the desired context and interactions to create the future vision. Methods that I will be using to deliver this future vision will mainly include desk research, literature review, interviews and context mapping with stakeholders. The outcome of this future vision will be my starting point for the ideation phase in which I diverge towards many ideas and solutions and converge to a few concepts for further testing. During the ideation phase, I will utilize brainstorming and co-creative sessions with users to maximize creative input. For testing I will create a set of low-fidelity interaction prototypes (Delft Design Guide, 2014) for users to test by acting out the interactions as if it was the conference. Subsequent testing, evaluating, and tweaking will eventually result in

The final step is to realize and implement the solution. The solution will be illustrated, for example in form of a video, to communicate the design to the client and other stakeholders involved.

My planning takes into account the 100 working days, excluding the Dutch holidays, so that the expected finishing date should be in the first August week.

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Initials & Name <u>C.S.</u> Häger	4847	Student number 4974816	
Title of ProjectThe hybrid conference of the	future		



Personal Project Brief - IDE Master Graduation

MOTIVATION AND PERSONAL AMBITIONS

Explain why you set up this project, what competences you want to prove and learn. For example: acquired competences from your MSc programme, the elective semester, extra-curricular activities (etc.) and point out the competences you have yet developed. Optionally, describe which personal learning ambitions you explicitly want to address in this project, on top of the learning objective of the Graduation Project, such as: in depth knowledge a on specific subject, broadening your competences or experimenting with a specific tool and/or methodology, Stick to no more than five ambitions.

Besides the great research and design opportunities that I see in this project, especially in the field of interactions, I also have personal motivations to why I chose for this project.

During my internship elective I have already started to acquire knowledge in creating virtual experiences. By working for the company SenseGlove, which develops hand exoskeleton tools for the virtual reality, as the only interaction designer, I had the task to specifically pay attention to the user experience within the virtual environments. Even though this master project may not have immediate connections to VR technology, such as headsets and controllers, the idea of the immersion in virtual and real worlds still remain similar and I am curious how I can apply my experience in this project.

During my bachelor and master projects such as Exploring Interactions or UXAD I have gained experience in research methods especially in interviews, context mapping or observations and learned how to create structure in analyzing the data through statement cards, clustering and open/axial/selective coding. I am looking forward to apply my knowledge in the field of research and analysis.

Also, I can show my ambitions in taking my own initiative, contacting people, and proposing ways to work and organize things. Because I am the 'manager' of this project it will give me a chance to show my management skills and implement online tools that give me the chance to share my progress and stay in touch with stakeholders.

Furthermore, I like to be creative and make stuff for testing. This project allows me to prototype quick and simple tools for evaluation and improving it with a user group. However, I have mainly gained experiences in making physical prototypes which were less focused on digital or remote testing, meaning that I will yet have to further develop skills on creating digital prototypes. This includes the ways of visualizing and demonstrating UX related solution spaces.

I anticipate to improve my research skills in terms of the set-up and finding the right research questions for finding the right answers and create a good basis to start my ideation phase. This project will allow me to get in touch with many stakeholders through my client and coaches and I want to make the most out of it.

My biggest challenge during my master thesis will lie in the project planning, thus, this will be my most desired competence for me to acquire. I want to improve in the way that I organize things, as I can be a little scattered at times. So far, the educational system has always assisted us well in structuring our design process. The master graduation will be a moment for me to prove but also learn to manage my own design project and to not only structure my own project but also create a new structure for the DRS conference itself.

References

Linthicum, A. (2020). Hybrid Events: What You Need to Know. Cvent blog. Retrieved from https://www.cvent.com/en/blog/events/hybrid-events-what-you-need-know
Mayra (2020). 5 Hybrid Event Ideas. Dreamcast. Retrieved from https://www.dreamcast.ae/blog/hybrid-event-ideas/
Strutt, J. (2020). 10 reasons why hybrid events are essential to your event strategy. Brella. Retrieved from https://www.brella.io/blog/hybrid-event-benefits

FINAL COMMENTS

In case your project brief needs final comments, please add any information you think is relevant.

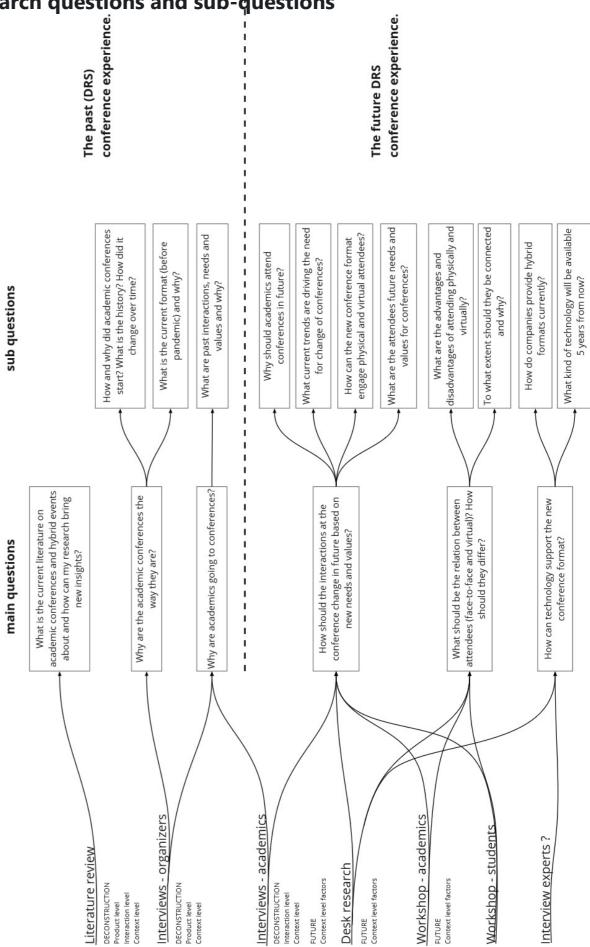
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Initials & Name C.S. Häger 4847 Student number 4974816

Title of Project The hybrid conference of the future

Appendix B - Research Planning

1 Flow diagram overview of research methods linked to research questions and sub-questions



2 Overview - Research Activities

		1
Research activity	Why?	How?
Interviews with conference organizers	Understanding why the current conference format is the way it is. Reflecting on activities. Reflecting on academic society.	Semi-structured
Interviews with academics	Understanding why they go. Understanding their experience at conferences (needs and values). Understanding the academic society and how it might change in future. Understanding their experience with hybrid/online conferences (events).	Use of sensitizing materials before interview (use of e-workbook / interactive pdf) Semi-structured
Workshop with	Understanding a hybrid/online	Use of small
academics	experience.	sensitizing task
academics	Online / offline (dis)advantages	before session and
	l	
	An ideal hybrid event of the future.	generative tools
/14/ l - l		during session
(Workshop with	Understanding a hybrid/online	Use of quick
students - maybe)	experience.	sensitizing task
la ann ha ainsilea an		before session and
It can be similar to the academic		generative tools
workshop		during session
Desk research /	Finding factors/trends that	Search literature
Trend analysis	have an impact on hybrid	(paper, articles,
	conferences for the worldview:	etc.)
	 Inclusion / diversity 	
	- Sustainability	Possibly find
	 Societal impact 	interesting
	(knowledge transfer to	stakeholders/
	general society)	experts of certain
	- Open science	factors for a quick
	movement	interview.
	- Family composition	
	- Work-life balance	
	- Online engagement	
	- Academic society (how	
	it is changing)	

3 User research activities - Planning

3.1 Inclusion criteria of research

Conference attendees with different positions within the field may have different perceptions on how they experience a conference and how they would like to experience a (hybrid) conference in future. Incorporate diversity in academic participants for insights from (possibly) different perspectives:

- interviews: 2 PhDers, 2 assistant professors, 2 senior professors, (1 practitioners? / 1 physically impaired attendee?)
 - diverse in gender, age, nationality
 - that have had different positions in the conference as well (presenter, audience, workshop facilitator)
- workshop (1 workshop, preferably 2 workshops are conducted)
 - diverse gender, age, nationality and position per workshop
 - that have had different positions in the conference as well (presenter, audience, workshop facilitator)

List of participants for interviews with design researchers

Participant	Appr. Age / gender	Position / job	Country	Date	Time
A1	35 / female	Associate prof	Czech Rep.	14-04	11:00
A2	60 / male	Professor	England	13-04	16:00
A3	35 / male	Assistant Professor	Netherlands		
A4	50 / male	Professor	Sweden	14-04	10:00
A5	35 / female	Professor	Netherlands	13-04	10:30
A6	35 / female	Lecturer	Netherlands	12-04	11:30

List of participants for workshop with design researchers

Participant	Appr. Age / gender	Position / job	Country
W1	28 / female	PhD	South Korea
W2	35 / female	Practitioner (Researcher)	Netherlands
W3	40 / male	Professor Sao Paolo	Brazil

List of participants for interviews with conference organizers

Participant	Position / job	Country
01	DRS	England
02	RSD10	Netherlands
O3	UXinsight	Netherlands
04	Design & Emotion conference	Netherlands

List of participants for workshop with design students

Participant	Appr. Age / gender	Country
S1	28 / female	Netherlands
S2	35 / female	Netherlands
S3	40 / female	Norway

3.2 Interviews with conference organizers

Why?

Understanding why the current conference format is the way it is:

- Reflect on current activities and conference format and why they do it like this:
 - o What do they intend to do/achieve at their conference?
 - o Why do they want to achieve this?
 - o Why is the conference format like this?
 - o How do they intend to achieve this? By introducing certain activities/formats?
- Reflect on academic society and their dynamics and how they see the academic community and conference in the future

How?

1. Some very small sensitizing question beforehand that I send in an e-mail prior to the interview to give the participants some time to think about their answer and academic conferences in general:

What are three main goals that you are trying to achieve with your (upcoming) conference?

2. Semi-structured interview questions, to ensure to have asked similar questions during all interviews but leave room for new topics and conversations:

Academic conferences:

Could you tell me about the main goals that you want to achieve with your conference? Why did you choose these goals in particular?

(Is the UXinsight festival more practitioner oriented?)

How did you design the activities in order to fulfill your goals? What are the activities that you offer at the conference? Why do you offer these different activities/formats? Do you see your prior stated goals reoccurring in these activities?

Interactive session, meet & greet, talk, Q&A

Go into some detail of each activity/format that is offered: Why this activity?

Tell about experience with this online festival: What went well, what not?

(Since when does the festival exist?) How has the (ICED/DRS/RSD/UXinsight) conference changed over time in focus / format? I saw the conference exists since (time), how does it differ from then to now? Why do you think it has changed or why not?

Academic/Research community:

(Why are they needed for the academic community? Why do you think conferences in general exist?)

How do you think has the academic / research community changed over time?

Where do you see the academic / research community going in the future? What is important to main-tain or change?

Why should academics / researchers attend conferences and join communities in future? (if everything is available online nowadays – LinkedIn, Twitter, open science)

Based on the academic / research community, do you see the conference changing in the future? Would you like to change parts of your conference? What/Why?

How do you see the possibilities of hybrid formats play a role in this? Would you consider a hybrid format?

3.3 Interviews with academics

Why?

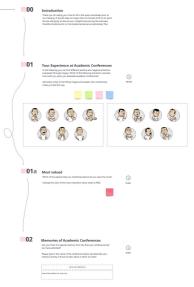
Understanding why people go to academic conferences:

- Understanding their experience at conferences (desired interactions, wishes, needs and values).
- Understanding the academic society and how it might change in future.
- Understanding their experience with hybrid/online conferences (events).

How?

1. Sensitizing e-worksheet (see miro board) to be filled in by participants prior to the interview. To give them a chance to think about the topic of academic conferences currently and think back at conferences (focus on present and past) by using the path of expression: Present, Past, Future (Sanders & Stappers, 2012).

https://miro.com/app/board/o9J_lLnwmb0=/



2. Semi-structured interview questions, to ensure to have asked similar questions during all interviews but leave room for new topics and conversations. Use of path of expression as a cognitive walk-through of present, past and future experiences:

Present - Immersion into current experience

Why are you attending academic conferences?

Sensitizing material Part 1: How do you experience academic conferences? What are positive experiences and/or negative experiences at conferences? How do you feel? Why? What do you value and what not? What has been one of your (least) favorite conferences that you attended? Why?

Past – Activating feelings and memories from the past

Sensitizing material Part 2: Can you think of a special memory from your first academic conference you attended? Why did you choose this one?

How did conferences evolve in time, when comparing your first conference to conferences now? How do you think has the academic community changed over time?

Future - Dreaming about possible conference experience in future

- Generating and expressing new ideas relating to the future experiences.

Where do you see (or where do you wish to see) the academic community going in the future? Why? What do you feel is important to maintain or change?

What outside factors play a role in / impact the academic community?

Why should academics attend in future? (if everything is available online nowadays – open science) How do you wish an academic conference to be in future based on your experiences you made so far? What do you want to change or what do you want to keep? What would be an ideal conference scenario for you?

3.4 Workshop with academics (& students)

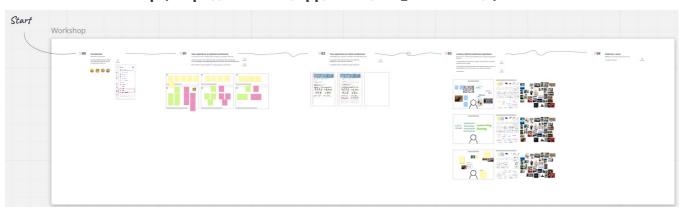
Why?

Understanding a hybrid/online experience:

- Quick round on: Why do they attend academic conferences?
- Talking about the experience that attendees had in virtual (or hybrid?) conferences.
- Reflecting on advantages and disadvantages of attending virtual and face-to-face.
- An ideal hybrid event of the future.
- Reflecting on hybrid conferences

How?

- 1. Sensitizing worksheet (see interactive pdf: SensitizingWorksheet) to be filled in by participants prior to the workshop. Reflect on academic conferences and their online experience (focus on present and past) by using the path of expression: Present, Past, Future (Sanders & Stappers, 2012).
- 2. Miro workshop (https://miro.com/app/board/o9J_lLoRMPw=/)



that incorporates 4 steps:

01 Your experience at physical conferences

A few main reasons of why you are going to conferences

Remembering conferences or events/meetings before the pandemic, when they used to be physical:

- Individually thinking of main reasons and advantages and disadvantages physical conferences
- Discussing outcomes: Why going; advantages/disadvantages; how did the physical conferences meet your main reasons of going

02 Your experience at online conferences

The participants insert their worksheet into the board:

- Talking about the experience that attendees had in virtual (or hybrid?) conferences.
- Compare this to the reasoning of why they attend conferences. Did the online/hybrid format reach this level? (Did face-to-face conferences reach this level?)
- Reflecting on advantages and disadvantages of attending virtual and face-to-face.
- What are main differences between virtual and face-to-face conferences?

03 A future hybrid conference experience

- We see a future in hybrid formats: environment and inclusion
- How do the participant imagine a hybrid conference to be like in the future? Why?
- Participants create a collage on how they picture a future hybrid conference and explain in the discussion round, why
- What do you think should be important in a hybrid conference? How can virtual and face-to-face attendees be combined to create an engaging hybrid experience? Can they benefit from each other? Relationship between virtual and face-to-face attendees?

04 Reflection round

- Can you imagine attending hybrid conferences? Do you see a future for hybrid conferences?
- Do you have any other remarks / feedback?
- (What did you think about this workshop?)

Appendix C

- Miroboard links to data of research & analysis

Link to workshop with design researchers:

https://miro.com/app/board/o9J_ILoRMPw=/?invite_link_id=314578656402

Link to Workshop with students:

https://miro.com/app/board/o9J_lljYDws=/?invite_link_id=227296517859

Link to sensitizing sheet interviewees:

https://miro.com/app/board/o9J_lLnwmb0=/?invite_link_id=965299294475 https://miro.com/app/board/o9J_lKgYYLQ=/?invite_link_id=591498707081

Link to research process and insights (structure of insights): https://miro.com/app/board/o9J_lTaAllM=/?invite_link_id=603268067855

Link to virtual/face-to-face trade-offs and clustering factors to worldview: https://miro.com/app/board/o9J_IFSNVaY=/?invite_link_id=947882631693

Appendix D - Open coding analysis

Analysis qualitative data – Hybrid conference research

- 1 Open coding
- 2 Deconstruction
- 3 Create context factors
- 4 Cluster context factors
- 5 Make a context structure World View
- 6 Statement
- 7 Interaction Qualities
- 8 Product qualities

1 Open coding

- 1 Literature review / Desk research
- 2 Interview Academic 1
- 3 Interview Academic 2
- 4 Interview Academic 3
- 5 Interview Academic 4
- 6 Interview Academic 5
- 7 Interview Academic 6
- 8 Workshop Academics
- 9 Workshop Students
- 10 Interview Organizer 1
- 11 Interview Organizer 2
- 12 Interview Organizer 4
- 13 Interview Organizer 3

Nº	Time	Category - Label (finding)	Text extract (source)
1.1			
1.2			
2.1		Academics attend to find out about the upcoming 'hot' topics in future.	To see what's going on in research. So what are the main topics. Studies by my colleagues, and what are the main topics that would probably be hot in the future, in the coming years.
2.2		Academics attend for sharing research for net- working with people with similar interests	Then, of course, to share my research and to network around it so to find people with similar interests
2.3		Find possible opportunities for collaborations	and possible opportunities for collaborations with known and new people as well, so within a networking.
2.4		Nice travel opportunity	Of course it is always nice to go to a conference in a nice place where you can also do some sightseeing.
2.5		Conferences for new experiences and as entertainment (parties etc.)	New experiences of any kind. So also the entertainment and parties is a nice add-on.
2.6		Inspiring keynote speakers evoke excitement and satisfaction through new insights	A pleasant experience like also a sort of satisfaction with what I see and a bit of excitement and that normally happens when you hear a very inspiring keynote speaker. There's always one that is really oh yeah that's really cool new ways new insights new way of saying things.

2.7	Happy to see old friends/colleagues again (welcoming feeling)	I'm happy to see certain people that I know. Seeing people again that I haven't seen in a while, so it's like probably yeah social happiness.
2.8	Spark of curiosity when you hear about interesting research of others.	When you hear just something interesting and some new insights or even that when you hear about the research that other people are doing, that sparks my curiosity.
2.9	Bored about paper presentations that lack in quality.	Bored - Unfortunately it's difficult for conferences to have all the same level of quality in all the presentations so sometimes you go to a session for one presentation that is not so good.
2.10	Attending physically makes it more difficult for people to 'walk away'	But you don't want to walk away, just because it is not nice.
2.11	Embarrassed, when not knowing how to handle criticism.	I was embarrassed, that's only the beginning of my career, when I was very shy and not confident. You take everything personal in the question, the criticism you're getting.
2.12	Younger academics do more paper presentations.	Now, more of my PhD students do the paper presentations instead of me. But I still present myself. Let's say that I always like do one presentation, a year, I would say.
2.13	Paper presentations need to allow enough time for discussion, interaction between audience and author.	There are sessions, where they put a lot of presentations and then there's no time for questions or discussion, so I really don't like that. There is really 3 or 4 minutes for questions and there is basically no time for discussions, but I also want to interact. It is important for the author and the audience to interact and to get a good discussion. I'd prefer sessions to be organized that allows for discussions.
2.14	Authors should maintain presentation (communication) and time managing skills	I also don't like when authors don't stick to the time that they're given so. Unfortunately, academics are not sometimes great presenters so. Or we just don't care about time and.
2.15	Shorter, more to the point presentation format is more engaging.	I like conferences, where they give you not so much time to present so you're forced to focus on really important things.
		Instead of endless stories.
2.16	Values variety in formats and activities.	And then I like when they have variety of formats so it's not just one day in the same type of presentation discussion presentations and so on. When there are also round-tables or more shorter presentations of five minutes, where you really pitch the topic. You have more possibility of having more perspectives, so I like when there's a variety of formats as well, in presenting the content.
2.17	Value of sharing experience together in a group.	There's a great memory, because it was a very nice trip that I did together with my PhD colleagues, so it was when I was doing my PhD. So I have a great memory of sharing all the experiences of our first conference with them, and it was in Germany. It was a very nice place to hang out with my PhD group.
2.18	Conferences pay more attention to discussion and engagement.	There is indeed more attention to discussions during conferences. Larger variety of formats
2.19	Nowadays it is more difficult to meet friends at conferences (due to larger amount of conferences)	There is really a lot more conferences. You don't meet your friends so easily, or don't meet the same people so easily because they start going to very specialized conferences that, maybe, are not relevant to you.
2.20	Easier to find conference specific to your needs.	If you find your specific niche you really become attached to a specific conference.
2.21	More low quality at conferences	The level of specialized conferences is so so. It's nice to have them but too much specialized conferences means low quality.
2.22	Don't want awkward moments to come due to not knowing anyone on the conference. Requires effort to meet people.	There's that awkward moment when you need to just do some small talk with a stranger at opening when you don't know anyone. And yeah that that's avoidable if you meet people that you know so it's a social perspective it requires a bit more effort.
2.23	It is nice to be with the same people during a conference.	At small conferences, where there is only two tracks, you sit with the same people all the time, and then you get to know them. That's nice for connecting socially.
2.24	Increasing competition means that academic conferences need to stick out more to attract attention.	There are so many alternative events that you need to really stick out compared to the others to attract academics and to attract the attention of and also to because we yeah we cannot go to endless conferences, we need to choose and sometimes we also want to go to more practitioner oriented conferences.
		There is more competition also for academic conferences that also come from non-academic backgrounds and also online. You need to offer people an engaging event in order to convince them to come back.
2.25	Academics tend to stick to a traditional way of presenting.	Conferences with a management background academics really they stick to a certain presentation format.
		You start with your little story then there's your research question then your method and then your findings and then some conclusion. You can take risks at certain conferences, but academics tend to stick to the traditional way of presenting the content.
2.26	Academic community is changing slow.	there is some sign of change, but not as fast as you would. it's a very good conference but same format same people talking not not a lot of spark in what they do. you're not exciting location so, is it the number of participants declined, and so, and now they have a new board with younger people and they are starting to implement change, but it goes slow.
2.27	Desire for more practice based interactions besides the academic debates.	an ideal conference will be some moments for really academic staff, you still need to have a discussion it is still valuable to have a research focus discussion.
		But also, a part where you disseminate more and interact more with practice so ideally that my desired experience would be hybrid in that sense, so that you have some room for academic intellectual debate and room for interaction with practitioners.

2.28	Lack of practitioner oriented formats.	Sometimes the presentations are really research focused and sometimes too much research focus, so practitioners don't see any practical relevance. There are rarely dedicated activities where the practitioner's role is very meaningful.
		For instance, the sessions, where yeah you have discussions on the practical implications of certain papers, together with practitioners.
2.29	Having young kids prevent academics from going.	If a hybrid conference is well organized, I would join. Sometimes you cannot travel to someplace, for instance, now I have a young daughter So for me, if the pandemic was not there I could not go to conferences.
2.30	Interest in hybrid format if well organized.	the key there is to nail the format hybrid is complicated and. But if we understand a nice format to do that. I definitely would be interest.
2.31	Throwing in provocative statements to stimulate interaction.	What I really liked was the moderator. The moderator it really did a good job in stimulating the interaction and throwing in provocative perspectives that would keep you listening so. So I think yeah that was an okay experience. A plus for the moderator.
2.32	Create meaningful interactions for attendees.	The key to a hybrid conference are engaging activities in meaningful ways. Like the speed dating could be a cool experience.
3.1	Value nice trips / journeys (for free).	Yes, i've been doing a couple of projects, recently, which would have involved nice free trips to interesting places one to Hong Kong and one to Lisbon, but of course they've all been cancelled so I haven't had any nice journeys recently.
3.2	Institutions only pay when a paper got accepted.	I'm not going anymore and that's because I retired from salaried employment couple of years ago. And, of course, one of the things that enables academics, to go to conferences is their own institution, paying for them to go.
3.3	Excited to meet well known researchers.	Meeting the people who are one hopes, the leaders in one's own field.
3.4	Chance to discover new (sources of) information	discovering new information new sources of information
3.5	Hoping for new friendships leading to working relationships	new friendships which could lead to working relationships all of those intrinsic things
3.6	Career benefits when presenting at conferences.	But actually, of course, one of the big extrinsic drivers for academics, is that one's under pressure to publish and within Art and Design fortunately presenting papers at conferences is counted as a as a significant kind of publishing. So there are clear career benefits to an academic in going to places and presenting a paper which can then be counted as part of one's CV or for various other purposes.
3.7	Conference as a break to do fun stuff.	one of the extrinsic drivers is simply taking a break and going and doing something different, and being in a different city. Eating nice food perhaps drinking some nice wine looking at some interesting buildings and all of those kinds of things.
3.8	Attendees remember the trips rather than the information presented.	and those are important. When I was thinking about and i've noticed this before, when I look back on conferences i've attended in the past. Actually, the things that I tend to remember are the other things. They're not papers, I heard. They are the other experiences that i've had while I was on those trips.
3.9	Take initiative to take time off just for exploring the location.	Actually i've tended to make a practice of deliberately taking half a day off from any conference i've been to and just exploring the city or the surroundings and not spending the entire time boxed in with all the other people.
3.10	Disappointed about poor quality presentations, leading to less meaningful (valuable) use of time.	There are quite a lot of papers which sound as if they're going to be worth attending and then they're not. They're poor quality papers that, in my view, should never have been accepted and and I think that's because there's an ambition to make conferences very big these days. A more selective approach would lead to a more valuable conference experience.
3.11	Worried to miss out on good presentations. Feeling trapped in a room, if the presentation is not good.	is the difficulty of being in two places at once, so or big conferences these days have parallel strands and of course that does mean, you choose one, and then you are quite often trapped there in that room when find out it's not very good by that time it's too late. And you can't escape and go to another strand.
3.12	Politeness keeps them from browsing/wandering through different presentations.	because I think that's partly British and probably also Dutch politeness because i've been in conferences in the states where people very obviously just browse. They wander off out again if it doesn't interest them.
3.13	Poor guidance through conference facility (directions etc.)	And then, one of the very practical things is poor quality information about where things are, how to find them where the door is all of that kind of thing.
3.14	Cultural aspect of going to a conference is very valuable. Appreciate if conferences do an effort to give access to something local.	I think it's also Nice if the conference to itself gave access to something local. DRS 2016 was quite Nice in that some of the events were in the Brighton museum. So that meant that, while you were there, you could also be looking at these beautiful things so you did feel that you were kind of getting something else out of it.
3.15	Hospitality and venue, the whole experience is valued.	I think again, a lot of that would be to do with the venue. The hospitality. The whole experience.
3.16	Use of organization and conference to illustrate importance of subject (matter) to people.	Get people to recognize how important computing was and show its potential.
3.17	Excited about positive feedback from others.	It wasn't just me that enjoyed it, they said it was a good presentation, so that was a good start.
3.18	More attention to a whole process: moments are not just defined when you present.	As part of the run up to the conference So things are put online people can comment on them, so the process have been to change with one's peers isn't just confined to the moment when you present it but it's actually part of the whole run up.
3.19	Gradually more format variety appears at conferences.	There's more variety at conferences in format than there was; performances and things like that. So I think that's been gradually on the increase, but there were some experiments with that kind of thing back then.

3.20	Other formats apart from paper presentations don't add to your career.	From a career point of view, with the other activities like workshops and things like that is that they don't count for much on an academic CV. Perhaps if you're running a workshop that might have a certain amount of weight, but essentially for an academic you need to be presenting a full published paper. The one that is kind of still the backbone of the experience is the opportunity to to get
		the full published paper. Because it's one of the building blocks of one's career.
3.21	Would like to join a conference without having to present every once in a while.	I've occasionally thought I'd like to go to a conference that I wasn't presenting at. But I've never felt sufficiently inclined to do so to pay for myself.
3.22	Production of many papers with little quality.	and produce several fairly lightweight papers, rather than one really profound one
3.23	Location to travel to is valued.	I said about the extrinsic benefits i'd like it to be somewhere. That would be enjoyable to be in in itself. I've only once cynically written a paper entirely because I wanted to go to the place where the conference was taking place and that paper wasn't accepted so didn't work anyway.
3.24	Wish to meet a variety of interesting people.	The expectation of meeting a variety of interesting people. I mean, there are some conference subjects where I wouldn't be that confident that I would meet people that I really want to spend much time with. I like people of all sorts, and I don't really want I wouldn't want to be in a conference with 95% man (like computer conferences)
3.25	Wish high quality content.	do I expect the qualities of be do I hope that the quality is going to be quite high
3.26	Unsure whether universities pay for physical attendance.	And, of course, there is a danger of institutions will say, well, you can participate in this conference, but you're going to do it online and we're not going to pay for you to. I really don't know whether the attendance type conferences simply going to disappear in many cases, because institutions will refuse to pay for people to physically go to a place.
3.27	Wondering what the added value is to be there physically (for yourself to go and universities to pay).	And it then raises the question, what is the added value that comes from being there. Because, as the virtual experience gets better. What is the point in people being there which will either will both persuade attendees to physically attend and also persuade their institutions to pay for them to attend.
4.1	Small scale conference makes you meet people easier. Bumping into people.	The small conferences are interesting because you know sort of half the participants already well because you've seen them in previous years, so it's sort of a you know what they're going to talk about, you know their research, perhaps even done research together with them. And then there's some new people that know half of the ones that you know, and you get together, it's very social. And everyone eats together, and you know it's it's very nice.
		The DRS is a different scale you bump into people, of course, but lot's of people you don't say hello.
4.2	Attending for career.	Partly to present yourself, your research, because then you get a publication and that's good for you, you know publish or perish.
4.3	Attending to get up to speed in topics.	and also to to get up to speed with what's going on. So you hear people talking about. since i've been working on and researching and being a professor in design, I mean I need to be up to speed with what's going on.
4.4	Discussion afterwards provides space to reflect on research and outcomes.	and it's not only the presentations because it's also the discussion afterwards, which are. Perhaps even more important, because then people can, well not complain, but compete and discuss is this relevant and i've seen this other work that's contradicts what you say you know things like that.
4.5	In conferences people tend to go beyond what they have written and explain in more detail.	but the conferences are up to date, because the journals when you publish something in a journal, it takes a year, at least until it gets out there. From the review, and of course there is a reviewing process at the conferences well but, but people tend to go beyond what they have written and explain more in detail.
4.6	Most rewarding if someone comes up after presenting and wants to discuss content. Creating more relevance for your own research.	and then, when you talk to people off stage, so to say, when you just bump into them in the corridor. And then you can ask them about things you presented, I mean that's perhaps the most rewarding, if you have presented yourself and someone comes up to you and wants to discuss that and then you can really give accounts for what you've been doing. That's relevant for the end.
4.7	Learn how others are doing their work.	and then I can ask someone who presented: What did you really mean by that. What was the reference you know. And how did you do that?
4.8	Meeting people with similar interests.	Meeting people with similar or related research interest, of course, and even different ones, because you get surprised by my that as well, so basically it's up for experiencing
4.0	Be surprised about different interests.	things I would say.
4.9	Interesting to hear big names speaking.	I like the big ones as well, because then you I mean you get to see Don Norman talking, for example, the people that you don't see at smaller ones, I mean the big shots. I mean that's interesting to hear them complaining about things. As keynote speaker but also in the audience. Just like a grumpy old man.
4.10	Excited about papers relevant for your research.	Excited about well presented papers relevant for your own research.
4.11	Feedback/comments on your own presentation is extremely important for learning experience.	comments on your own presentations this extremely important, of course, as well.
4.12	Fully booked sessions can be prevented in online space (not constrained by a physical space)	when I got there, it was fully booked and crowded so I couldn't attend it, and that was one of the main events that I really wanted to attend. That was too bad yeah. In online event you are not constrained by the physical space.
4.13	Upsides and downsides: long queue at coffee resulting in long waiting times but also enables you to meet new people.	The queue for coffee made me miss a session. on the other hand, the queuing. It takes time, but on the other hand, I remember just in the conference I got to talk to people next to me in line, and they were really interesting, so it has some good aspects as well.

Embarrassed about being unable to answer a question in front of experienced people.	Someone just said hey I have this question, how could we use design in the best way or something like that. And I got stuck. There was lot's of big shots and it was so embarrassing not to be able to answer. And the woman who, who was chair of this session, she was also really experiences, she thought it was funny that I couldn't answer.
Instant visualization of content of discussions for people.	And then afterwards, this was put on the web, just after they had recorded this and then they use these keywords as tags so when you look, say it was a one hour interview or one hour discussion, you can see what they have discussed because you can read the key words.
	And it was no extra effort for the people, recording this to do the key words because the people who had talked have done them themselves.
Not only verbally but also visually focused conference, to show information exchange.	this was just one of the things so it was a very visual not only verbally focused conferencing (me:) but also sort of trying to visualize information. That would be exchanged between people and that would be presented Yes
Less one-way communication by implementing more discussion.	But I think that we have started to make more workshops actually in conferences. Because people complained about the one-way communication. That's a trend. The workshops are more integrated now, than in the beginning.
Designers tend to want to do stuff.	I think perhaps, I mean I've only mostly went to design conferences, and there the designers tend to want to do things. So that's perhaps why this increase of workshop activities happens.
Publishing paper is necessary for moving up in job hierarchy.	to get a better job move up in the hierarchy you need to have published papers.
Pictorial paper format: images have the content	I think it's called pictorial paper format. That's common also in the interaction design conferences since you want to show a lot of things. The image is not just a complimentary to the content, the images has real content. In itself.
Visuals and materials make an experience richer.	Adding visuals and materials and bodily experiences are of course very important, I mean once that happens it's really you feel it's a big difference from just sitting on chairs listening.
Face-to-face provides extra learning that you	I think it's the face-to-face. I think the interaction.
uon i ger remotery.	That provides some learning that you don't get if you just read.
Use of more spontaneous formats for people to meet up and discuss stuff.	When you said open science. I came to think of open space. It's a very interesting format. So the idea is that people meet up. And then, some of the people propose subjects. So it's not pre prepared at all, so I want to talk about values or whatever, and I write that on the wall: I will talk about values or whatever in Room one. And then, some people tend to come into a room and we talk about it and we make notes and things like that, then the people who don't want they leave and some come in so there's a format for that. Or someone called it non-conference or so.
Have more detailed meta tagging of keywords	the Meta tagging on things. yeah so so they could get into details that would be I don't know how but I mean that's for you to figure out.
	I think that's interesting like keywords on the more detailed level.
	In the discussions.
Academic credit to be able to move forward in career.	So one thing kind of boring part is that it's something to do for kind of academic credit. So if you go to a conference to like drs where you have papers that are archived you know peer reviewed and archives to be able to move forward in our career.
Learning how it works (when younger): how other people do their work, present and ask questions.	when I was younger, you know when I was a student, it was such an amazing thing just to go and see what people are talking about. And how they're talking about it, like How do people present it and then, how do other people ask questions after presentation, you know how does this whole thing work.
As you get older, more experienced, you just come to hang out and socialize.	getting a bit older it's a lot about seeing friends, and you know it's still about seeing what people are talking about. I think the the older i've gotten the less I actually go to sessions. Which is me it feels a bit bad to say, but even you know my PhD advisor who's kind of close to retirement of eric's alterman this is how he does, conferences and and he told me like you don't really go to sessions, you hang out in the hall, and you talk with people and. You see, you know again what people are talking about.
Different conferences; in terms of paper formats.	the drs conference is one where you have a paper already that's been through peer review which we're trying to make more rigorous, but it should be, you know really checking it, this is finished, work and then you go to presented.
Different conferences; rather try out an idea and write paper based on outcomes of conference.	There are other conferences, where I go to which is more in the humanities tradition, where you submit just an abstract and then it's a lot more about much earlier work where you kind of try out an idea.
	And then you know the ideas that you should later developed it into a paper. Different at different conferences.
Exciting and inspiring to talk about interesting and relevant work that others have done. Motivating / positive energy.	I mean it's like me for really a nerd like me it's just so fun to go to a place where people are talking about ideas is an interesting work that they've done. You know, especially when people are really trying to do something good through their work and it's just super exciting and interesting to see and to get more inspiration for my work so it's a lot about getting energy and trying to do the same for other people.
Satisfied experience if you did well and take new knowledge home.	I might be sort of after like oh like that was a nice like I may be really done now, but I feel like you know I have so much I can take with me and things I can look up. Sort of satisfied with the experience.
	Instant visualization of content of discussions for people. Instant visualization of content of discussions for people. Not only verbally but also visually focused conference, to show information exchange. Less one-way communication by implementing more discussion. Designers tend to want to do stuff. Publishing paper is necessary for moving up in job hierarchy. Pictorial paper format: images have the content Visuals and materials make an experience richer. Face-to-face provides extra learning that you don't get remotely. Use of more spontaneous formats for people to meet up and discuss stuff. Have more detailed meta tagging of keywords Academic credit to be able to move forward in career. Learning how it works (when younger): how other people do their work, present and ask questions. As you get older, more experienced, you just come to hang out and socialize. Different conferences; in terms of paper formats. Different conferences; rather try out an idea and write paper based on outcomes of conference. Exciting and inspiring to talk about interesting and relevant work that others have done. Motivating / positive energy.

5.9		Conference as major reunion.	I mean it could be like me seeing your friend I haven't seen like from Grad school like. A
5.10		Naryous haping the presentation goes well	lot of conferences, when people kind of my age is you know it's like the major reunion. before my presentation like please let this go well, please, I hope the audience will sort
5.10		Nervous, hoping the presentation goes well.	of like this and. Your fingers crossed. Hope everything the way that I that I wanted to.
5.11		Conference as tiring experience.	is something interesting in general with conference that is that you have some people who have a lot of JET lag. You know, eventually comes sort of the wisdom of just choosing to not go to some of those if you really know that you just need a nap.
5.12		Awkward situations if speaker does not stop talking.	It can be both I mean there can also be some really awkward inner personal situations at conferences like I remember. one speaker in this session would just not stop talking.
5.13		Conference as opportunity to travel for free.	just to be really honest as the traveling yeah and you know, certainly when I was a students and you know, a bit younger, I mean if that's the way that I can get funding from my institution to be able to go somewhere, then I mean that's basically, my vacation days.
5.14	13:40	Conference as influential by finding other people that are interested in similar topics.	looking into these really amazing things and, as I was just sort of heading into a PhD where I was starting out in social informatics, it was really getting closer to what I wanted to be doing, and just to see that this was possible, and then people were talking about things in this way. was really influential, even if I of course didn't understand everything completely, but at least with something different, that I really ever seen before.
5.15		Meeting in person is special (evokes a lot of feelings) which can't be replaced by remote participation.	And you know the stuff that we feel like can't be really replaced by you know the remote participation. yeah which is not to say that that can't be addressed somehow. But just to say that there is this really. there's a lot of feelings I think involved with that kind of.
5.16		Academic systems are slow to change.	but just in general I think academic systems are very slow to change.
5.17	16:30	Looking for new formats, possibilities to do some- thing different with our face-to-face time, rather than the traditional classroom format.	really looking for new kinds of formats. Because again if you think about this format and really similarly to a teacher standing in front of a classroom maybe you know, presenting stuff in slides or writing on a board. What do we really need to do. You know, then we can start to think about well Okay, maybe it's something different, that we can be doing with our you know face to face time.
5.18	17:31	Space for conversations is important to engage with an issue in a productive way. More inclusion of practical applications, with practitioners.	The format of conversations was also really interesting potentially if it's done well, so trying to create a really good conversation is not based on a paper, so this is more of an academic format, but trying to provide a way for maybe more practitioners or also academics. I mean i've run one with some colleagues as well, you try to make a space for good conversation and to really think that through and to engage with an issue in a productive way.
5.19	18:00	Paper presentations: present work that has been done, but what also is interesting (even better) is what people talk about in the hall, over drinks, about big challenges they face. Co-creating insights generated together.	a lot of times with the paper it's really presenting mean, this is the whole format like you have a final paper it's been through peer review you're presenting work that's been done, which can be really interesting, but I think was even better, and what also is maybe what people talk about in the hall, and you know over drinks afterward is the big challenges that they're facing.
5.20	19:10	Social importance: open space for people to chat and make connections.	So maybe there's some things that are purely social. Town hall format: just having an open space for people to to chat and potentially make connections and find out about interesting things yeah.
5.21	19:33	Workshops much more beneficial in participation, engagement and connecting.	workshops can be some of the most beneficial know different kinds of events they participated in, and you know, especially if you during my student time that were just really formative for the way that my my work shape for the connections that I made. yeah, so I think there are ways of working that are a lot more interesting potentially.
5.22	20:22	Conference as a get-away, to really be away (missing in virtual conferences).	You know so traveling to some place it really being away and that's another thing that i've actually missed in the virtual conferences i've attended in the past year.
5.23	20:32	Good and bad sides about attending remotely: can do other things at the same time, sit relaxed, not worried about having to sit up straight, leading to better thinking. BUT misses actually going away somewhere (putting e-mail on auto-reply)	That it's been both good and bad like it's good that i'm at home that I mean I can fix dinner, well, I have my laptop on the kitchen table and i'm watching a session. And there's something that's really, really nice about that is actually a really nice experience you know, especially to not just be stuck you know sitting really properly in a room where everyone's watching you. But you know, for me, if I can just be moving and you know I can even think better.
			But I missed the sense of actually going away somewhere where you know, maybe I can set my email auto reply like i'm away during this time i'm not doing email and not doing the other stuff.
5.24	21:24	Ideal conference can be dependent on current sit- uation: Ideal to go away or ideal to stay at home and not having to travel.	deal conference that would be one ideal, you know it can be ideal to be able to go away. But even on the other hand, it can be ideal in a different sense for me to be able to just be at home to not have to travel, you know that expense, you know, especially if I would not be able to get it all covered.
5.25	22:22	Systematic exclusion of people, if paper formats do not align in certain countries. Exclusion.	I realized, you know talking to people as part of the drs executive board, you know people on the IAC. from South America that their calendar is completely different and it doesn't align with the submission system for the papers for drs, for example, like both means the submission cycle and the conference. yeah they're fairly systematically excluded and so if we could do different way.
5.26	23:01	How to deal with time zones in an interesting (non-painful) way. Australia suffers often. Exclusion.	and then we need to figure out how to deal with time zones and how to do that and that are maybe interesting and not just extremely painful. For the same group of people every time like I always feel bad for Australians like I think they just have it bad you know, whatever.
5.27	23:23	Physical and virtual attendance should both be good and have its advantages to participants interaction-wise.	The real challenge is going to be, how do we find some good new ways. Like you know it's only physical that's good or it's only virtual we need both. How, in what ways and why. In what context do we need both?

5.28	24:46	Possible travel restrictions by universities due to sustainability.	I think again universities do see the benefit and meeting in person.
		suscaniavinty.	Okay, but also my university has actually had guidelines now related to sustainability that travel should be avoided if it's possible to do things remotely.
5.29	25:35	Cultural aspect is lost with virtual conference: Disappointed to not show people around (favorite spots) in town.	I mean one negative thing I think the first one that I went to was for us in August and I presented at. which was in Prague, where I live, and so it was super sad that I was hoping people would come here and I can take them to a favorite spots and then it was all virtual and there was no travel so that was a bit sad that it would have been this really handy conference.
5.30	26:06	Pressure of dealing with new technology. Making video adds to pressure of doing it well (a few takes).	So figuring out how to do that, which I just didn't zoom so I mean it really wasn't such a big deal, but it is a different thing you know if you have a recording there's this pressure to do it well, and so I think I did a few different takes of that
5.31	26:21	Positive and negative side: recording was useful to publish online and became more views than at a conventional conference	But then actually the plus side of it was that I had this recording which I was able to share it with my research colleagues, and then I put it on my research project website, and I think it's actually gotten a lot more views there, then I did during the conference.
5.32	26:39	Awkward/silly moment in online conferences: 'moving' from place to place, watch video	if you think about the logic of Okay, we have this conference with these time blocks and then people should go here and then someone will put press play on a video I mean there's something about that that gets to be a bit silly at some point, I feel like.
5.33	26:56	Switching between sessions can be easier virtual or too easy to switch (positive and negative)	and also to switch between sessions, this is something that's really fun. And can be seen as maybe both positive and negative again that you can just you know click a different link and you can go to a different session.
5.34	28:13	Less immersion virtually: Tend to do other things simultaneously (awkward moment) if someone asks you something and you did not pay attention.	It I went there you know this really in lurker mode like in my kitchen cooking and I did get sort of called out by the organizers like Oh, but heather is here, maybe she wants to add something and turn on a camera. there's a sort of awkwardness you know if you don't have.
5.35	29:06	Benefit and drawback of paying attention.	again, so the benefit and the drawbacks be paying attention, but not as much as if i'd been maybe you're stuck in a room.
6.1	1:26	Design is a more relaxed subject, 'less serious' vibes than in other areas.	and all DRS conferences have been really fun, in a way that some academic conferences are not, so before the pandemic, I went to quite a lot of conferences. design is not such a sort of serious subject and the like people seem more relaxed.
6.2	2:54	A chance for people to talk about interesting things and show interesting projects.	it's more a chance for people to sort of talk about interesting things and show interesting projects and I don't know like to me it's a lot less stressful and I don't know whether that's just my perspective, or whether that's something else but it's. The pressure is slightly less.
6.3	4:03	Feeling good to be with others that are interested in the same things. They understand you.	for me, the most enjoyable bits are often the sort of. Like between the presentations rather than necessarily people's presentations themselves, so the kind of. The idea of being there in a place with lots of other people who kind of understand what you understand what each other is interested in in a way, I think that, for me, is often being quite a nice kind of.
6.4	4:55	Enjoys the bits in between presentations more than the presentations themselves, because of meeting people and talking.	I enjoy the bits in between really like talking to people, becoming aware of like oh wow there's people interested in that that's really interesting.
6.5	5:09	и	I sort of would probably be quite happy to go to a conference and not actually go to that many presentations as long as there were the opportunities to kind of meet people talk to people.
6.6	5:38	Workshops / conversations enable you to meet and talk to people.	some of the conversation some of the workshops are structured in a way that enables that
6.7	5:50	Prefers less stressed formats in which he can have the possibility to get to know people throughout the day, hang out with them, do activities togeth- er (instead of presentations)	I was part of a group of people running a workshop that was all day, so that really meant we had a whole day. With a group of interesting people we did activities we had lunch together, it was much more relaxed it wasn't so stressed as you got to present this thing in 5 minutes
6.8	6:28	Useful earlier on in the career to meet other people that are interested in similar things.	these sort of things can be really useful for people earlier on in their career to find other people who are interested in similar things or it's a way for more junior people to actually meet.
6.9	6:35	Useful to go in career sense to get a sense of the different groups of people.	it's useful in a career sense because you get a sense of what different universities I like maybe what the different groups of people I like.
			part, the reason I work Eindhoven is because i've met people from their at conferences and thought Okay, they seem very nice, friendly.
6.10	6:40	Social element as a chance of getting to know people on a personal more meaningful level. Drawing a mental image of types of people.	And how else do you know that if you kind of. Like you can't always visit, even if you just visit places you don't always get a sense of exactly what people are like, you know what everyday life is like, but I think there's some of the social element really important and it's not only about all we need to have you know, a fancy dinner or something it's not really that it's more.
			getting to have a sort of mental image of the field like who's doing what and groups of people exist.
6.11	8:35	To learn new things that are useful/interesting.	one goal would be that in some way that I learned some new things that are useful or interesting I mean that's the most basic thing.
6.12	8:42	Rather gains new insights / new generates knowledge than have a summary on existing research. It may be practical, but it is not as relevant.	is nothing really that new and I have been to particularly industry conferences, where that is true it's it's not about presenting new knowledge necessarily it's more about people summarizing things that other people have already done in a way that may be very practically useful but it's not new, like it's sort of like oh great another talk about that yeah I know that. I wouldn't want that.
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6.13	9:19	Connecting with people in a professional but relaxed sense.	also really is a good conference for connecting with people or for getting to know. People in a in a kind of professional but relaxed sense.
6.14	9:41	Socializing people takes a degree of facilitation, not just an empty room, to avoid awkward moments.	that takes some degree of facilitation. it's not just like I might have been to conferences, where the social aspect was not well thought out like there was a terrible one in in Belfast, I went to that was a kind of sort of human computer interaction Conference, where they said on a timetable, like social event and what it was that they rented a room, it was quite a nice room somewhere and there was. It was freezing cold and about 20 people turned up at the conference. It was, I mean it was cold it was in winter anyway, but there was nothing, no like facilitation wasn't like organized, is what I call it be fine just give them a room with people who will get on with each other, and so what it meant was the you know people who already knew each other's stood next to each other in this giant room and the people who would kind of knew like a few of us it was sort of not just like to sit around not sure what to do. Maybe, it just was a bit awkward.
6.15	10:51	Organize people to go to places (involve walking form one place to another), be in interesting settings, create other focus, things to talk about are designed to make people talk to each other.	Like events where people go somewhere or see something or there's some kind of other focus, you know if you have a reception that's in like a museum or there's in a gallery or that involves walking from one place to another. As a group, people will get to talk to each other, there will be, you know there's things like that, but you can kind of design in a way that makes sense.
6.16	11:40	Create situations (in between bits) in which it is easy to talk to people (sitting in a bus, waiting for things).	sitting next to someone on the bus where there's a bus or range from like one part of the thing to another, you know all week after the Conference, you know the reception thing event is that these other place those moments of where you're kind of. In situations where it's kind of easier to talk to people or you're kind of it reduces the awkwardness I guess.
		People meet through casual encounters, not forced. Ways of reducing awkwardness.	a lot of people that i've met sitting on a bus or like waiting for things that i've subsequently collaborated with or you know become friends or that sort of thing. Those in between bits.
6.17	12:26	People in academia are quite awkward.	(me: topic of awkwardsness) I think that's a really big issue because I mean obviously that like a lot of people in academia, are quite awkward. people have social anxiety, they have sort of status anxiety about like you know I don't know enough or i'm not good enough.
6.18	12:53	We can design for people coming from all over the world who don't know what is expected culturally.	if you've got people who are new or from all over the world, they don't necessarily know culturally what is expected or what. I feel like we can design things that we try to take care of it some way.
6.19	13:55	Conference should attract high quality submissions of the track.	my main goal would be to try to make sure that. The conference is sort of attractive enough to attract High quality sort of submissions to the track.
6.20	15:06	Excited to bring people who work on related things together at a conference.	all these people who are really experts on this stuff really interested in it for a lot of them it is the first time they'd ever been in the same room together. But they knew of each other's work and was a thing that wow for the first time that, together, and then you know people went out and had drinks, or something afterwards, like it was kind of a way to actually bring people who will work related things, together. I think that worked well as a as a track organizing sort of thing because the conference was good enough that it attracted those people
6.21	16:37	Conference should be appealing enough for the right group of people to submit to	Appealing enough maybe prestigious a bit, but DRS is not really prestigious but I mean it's. I don't you want it to be appealing enough in that lots of people will submit things I think all the right group of people will submit things.
6.22	17:21	A big barrier for people submitting things can be travel, expenses, children.	if it's a hybrid kind of thing then maybe many more people would submit things because it's a big barrier for people going and submitting stuff is the travel and the expenses. being able to get lucky caring for someone children or you know elderly relative or something you can't necessarily travel halfway around the world for a week but a remote or hybrid Conference, I think, allows make some of those things easy so.
6.23	18:08	Submitted paper and research work should be easily accessible/findable for people to make more impact.	as a potential author I think my main goals would be. One of them is that people will actually read or see the work, but they will have some impact because, even if no one ever reads it no one ever sees it other than the people who are right there at the conference, then really it's just it only then becomes an event about meeting people or which is fine, but I think it's not that appealing to submit something to a conference where you know that, actually, no one will ever read the paper afterwards.
6.24	19:07	So much in academia is about finding each other's work. It is only really useful if work can be found. (example digital library with keywords etc.)	so much of academia is about. citations not just numbers, but like people finding each other's work, you know. you're doing research on the subject right there may be someone who's written an amazing paper about how to how to create design conferences or how to evolve design conferences. But if you can't find it, you never know it exists, then it's no use really other than to the people who did it so. I think that that's an appealing thing right that's quite an attractive thing that sort of helps fulfill that goal. you know it's going to be in this proper digital library it's going to be findable their keywords you can
6.25	20:51	Take aways / outcome from going to a conference	see if it's going to have a doi and all these other features that that sort of expected from academic papers. from a career point of view in lots of countries or certainly lots of universities it's very
		is important from career point of view.	important that there's some kind of outcome from it
6.26	22:22	Conference should not be so big that you as an individual have no impact at all but should also not be too small, with too small of an audience.	You don't need to be so big that it has no impact at all what you do, but you don't want it be too small, that it's not much audience, probably difficult a lot with hybrid events or digital component, a lot of these goals, maybe can be met in different ways, perhaps.
6.27	23:27	Different needs/individual: some people care about keynote sessions and some people don't.	I don't really care about keynote sessions, but I understand that lots of people do, and there are people who will attend the conference, because oh wow they've got you know.

6.28	25:00	People often don't finish writing a paper in formats in which people write a paper based on feedback from the conference, fewer things emerge afterwards. People don't get back to it afterwards.	have had a format, where you don't submit a proper paper you submit a kind of abstract like a shorter thing then after you've presented that at the conference you then write a paper based on feedback you've got. And that's quite a nice idea, but in practice. You can see that not everyone who does it then actually get around to writing the paper, so what it means is that there's a smaller set of things that emerge. And I just find it quite annoying honestly, what do I reference if I can't find the paper after it, but it was a really interesting presentation, but they never wrote anything.
6.29	25:42	It is nice to make feedback from the audience be incorporated and usable for later but there should be a structured method of getting this feedback.	I do understand the idea of being able to incorporate feedback from the audience. But then there's no structured method of actually getting that feedback.
6.30	27:04	(DRS) conferences are trying to attract bigger groups of people from different fields (instead of the same people that already know each other).	like I think the DRS from 2014 onwards, has really tried to kind of bring in bigger groups of people and bring in people who are not having been like you know sort of old established members of the society would be like a field that I get an impression that before that it was quite. It was smaller and it was a group of people who mostly already knew each other in a sense.
6.31	27:46	Format should evolve to be more vague for more freedom, depending on what people want to do.	I think things like the conversations are not necessarily very well defined what they actually are, in some ways that's good, so I quite like the way that the conversations can be almost anything. If you want to have a debate do that, if you want to you know make things do that if you want to go out walk and I don't know that like people have done things like that, but they've kind of call it a conversation.
6.32	29:32	It would be great to use conferences as venue for doing research. Promote a place where research can be done or knowledge can be generated.	the thing that's not talked about, that much is that. Particularly for early career researchers, you know whether that's a PhD or like, but if you can use conferences as a venue for doing research. If you're doing research about how to design, or do something. I think the DRS could make that clearer and actually encourage it.
			Also as a place where research can be done or where knowledge can be kind of generated.
6.33	31:51	In virtual formats, social aspects are missing: do you just click leave after the presentation ended?	For a virtual format: how do you facilitate the social aspects, or what happens when the presentation ends, do we just all click leave or what does that. You know that doesn't seem like a great way to do it, but it is what often happens, you know it's like Oh well.
6.34	32:08	For hybrid formats, things in between need to be considered (not back to back). It takes people time to walk from one place to another one.	Hybrid: it's going to take people 10 minutes to walk from here to here so let's not you know let's not schedule things back to back you would have gaps. I think even things like that knowing about that now realizing what the experience is like and designing that into the hybrid experience, so that there are opportunities for people to talk to each other to. You know, things in between, I think I think would be worth thinking about.
6.35	32:49	Specific awkward moments online.	that we kind of know now what's awkward you know
6.36	33:33	Would like to have more non-academics, people form the industry, join the conference.	I would be quite excited about the idea of the drs conference being something that a lot of non-academics, but designers who are interested in research, in industry I would be really quite excited if it could be something that more of them attended.
6.37	33:55	As a channel that is open in the background for some people, it would attract people from government and industry.	And in an online sense, why can't it be just a channel that I have on in the background, maybe, while i'm working. or the content it's something that is still relevant after the Conference it could be a YouTube channel or whatever like. I think it could actually get a lot more impact in industry and in you know public sector people working in design and government policy and so on, I think, would actually find really interesting but yeah. They would never go to a traditional academic research conference.
6.38	34:48	Almost no intersection with people from the field: with hybrid format you could have a secondary audience of design practitioners	you know design is very I mean it's exciting as a lot of people are interested in design this huge numbers of kind of. You know design thought leaders writing medium, you know posts about stuff that actually is very close in some ways to what people in the DRS are presenting, but a there's almost no intersection between those from those fields and I sort of think, it's a lot of work to organize it but the digital component could make it easier. the conference could have that kind of secondary audience of design practitioners.
6.39	36:07	The level/outcomes of conferences is often unusable for practitioners.	least in my experience there hasn't been much planned to appeal to practitioners. It would often be them lowering their standards to make things accessible to people outside of academia and he said he found it, you know basically turned them off that he tried. And it was A level that was usable and no one seems to care about.
6.40	37:27	Give feedback on presentations to make them better.	he actually suggested to us with the DRS that we should get people to do their presenta- tions or version of the presentations before the conference get them to video it practice it give them feedback on making it better. To make the actual presentations better at the conference
7.1	5:15	PhD candidates are busy with writing their own thesis which keeps them from possibilities of attending conferences.	I am not going right now because I am busy with my PhD thesis, so I don't have time to submit paper, because you have to submit papers to be accepted.
7.2	6:00	To learn from and get inspired by other researchers.	To present my research and to get feedback on that. To connect and network with people. To learn from other researchers, what their insights are and what their vision is for future research. I think keynote speakers are very inspiring.
7.3	7:00	Enjoyed when you meet many new people with a group together.	That one was really nice because I got to meet so many nice people. I was not alone, I was with my promoter and co-promoter and the students that did the research. So we had a nice group already and then we met so many more people. And it was really nice to interact with all the people with similar thoughts or obstacles.
		Interact with people with similar thoughts or obstacles.	
		Vanchad facilities ! ! !	One time at a conference we had to cit in a tent in August, in Italy
7.4	7:55	Very bad facilities can impact the experience negatively.	One time at a conference we had to sit in a tent in August, in Italy

1.02 1.02	7.6	9:30	Remembers the location / venue of the first conference	Yes, my first conference was in Paris, that's very nice anyways. Also the dinner. It's a cultural thing. If you go to England you just get very drunk etc.
10.25 It is note to meet people in a non-serious way, through drinks and count allow with through drinks and count allow with through should make quite grant and the property of the through should make gling it another level which was missing in earlier days) with through social media, so with the common should be considered to the considered to the common should be considered to the common should be considered to the	7.7	9:40		I was having a poster presentation and I was just standing there because nobody wants
1.30 Newadays, you can convext and share visually through social media, so with through social media (so with rough social media, social m	7.8	10:25		
r. 1.1	7.9	10:30	Nowadays, you can connect and share virtually through social media, giving it another level	you can also connect with people on social media who are also attending. You connect them in a virtual way through social media. And for me that gives it another layer which
webinar, and them in the Chatroom Isaw all kinds of people from TUD Delith or other institutes. 1.325 Academic community focuses more on meaning- ful design. 1.325 Academic community focuses more on meaning- ful design. 1.325 Academic community focuses more on meaning- ful design. 1.325 Not only absorb knowledge but bring people together and let them work on real-life cases. 1.325 Not only absorb knowledge but bring people together and let them work on real-life cases. 1.325 Not only absorb knowledge but bring people together and let them work on real-life cases. 1.325 Not only absorb knowledge but bring people together and let them work on real-life cases. 1.325 Not only absorb knowledge but bring people together and let them work on real-life cases. 1.325 Not only absorb knowledge but bring people together and let them work on real-life cases. 1.325 Not only absorb knowledge but bring people together and let them work on real-life cases. I think that's really net. So not only absorb knowledge but you and so meaningful rinker than just the calculative side of it. 50 think that has changed. 1.326 It is in more difficult to make video presentations real-life cases. I think that's really nice. So not only absorb knowledge but you and	7.10	11:00	or unexpected conversations or collaborations to	exchange. Sometimes I end up with project or collaborations with people that I would've
nicial and very engineering, whereas in 2019, really even hardcore engineers presented about, "we have to bring humans into our designs and white needs are, what is meaningful" earther than just the eaclustive side of ft. 50 I think that has changed. Not only absorb knowledge but bring people together and let them work on real-life cases. More applical. Not expelled. 17.15 17.05 It is nice to sit together and discuss instead of just with that is really ince. 50 not only absorb knowledge but you can also meaningful" earther than just the was also at the PRS conference in 2016 I that they had cases from practitioners. 17.16 18.11 It is more difficult to make video presentations yourself at home and have them be engaging enough to keep the audience around after 3 minutes. That was a difficult challenge for me to keep the audience around after 3 minutes. That was a difficult challenge for me to keep the audience around after 3 minutes. That was a difficult challenge for me to keep the audience or continue to watch after 3 minutes. That was a difficult challenge for me to keep the audience round after 3 minutes. That was a difficult challenge for me to keep the audience round after 3 minutes. That was a difficult challenge for me to keep the audience round interested at its minute to those videos of a workshop from home, althought was a direct to be involved and interested. It is minute to a conference physical. You wait a lot between roons, you have a orink, or you talk, or you just sit and relax. 17.17 23.00 If you don't go to conferences physically you are those videos of a workshop from home, althoughl was the provided of the conference physical. You wait has been added to be added with the provided and the provided in the conference physical work that are to discuss. 17.18 24.00 If you don't go to conferences physically you are a fine fine provided and the	7.11	13:00	already know, online. Connecting with new peo-	webinar, and then in the Chatroom I saw all kinds of people from TU Delft or other institutions, so I was messaging them, but I already knew those people. So connection with
together and let them work on real-life cases. More applied. Trablific cases. I think that's really rice. So not only absorb knowledge but you can also papid it. I think that was also at the DRS conference in 2016 that they had cases from practitioners. It is nice to sit together and discuss instead of just listening. It is not entire that they had cases from practitioners. It is not entire that they had cases from practitioners. It is not entire that they had cases from practitioners. It is not entire that they had cases from practitioners. It is not entire that they had cases from practitioners. It is not entire that the properties of the practitioners and the properties of the	7.12	13:25		nical and very engineering, whereas in 2019, really even hardcore engineers presented about, 'we have to bring humans into our designs and what their needs are, what is
18:11 18:1	7.13	15:55	together and let them work on real-life cases.	real-life cases. I think that's really nice. So not only absorb knowledge but you can also apply it. I think that was also at the DRS conference in 2016 that they had cases from
apop etc., and I think it's very tough if you don't have professional support and tools too make these wideos that people would like to watch and want to continue to watch after 3 minutes. 20:00	7.14	17:05		
interested. It is much more relaxed to attend a conference physical. You walk a lot between rooms, you have a drink, or you talk, or you talk, or you talk, or you talk and emersion) If you don't go to conferences physically ou are still very much in your regular work situation which makes it and relax. If you don't go to conference physically ou are still very much in your regular work situation which makes it and relax and the still in your regular work situation which makes it and related to be involved emersed. It is harder to be involved emersed. It is harder to watch back wideo presentations later than if you watch it live, because it feels less official. I always have that idea that I will watch that I will watch that I will watch that I will watch that will watch that I will watch it back. Surt I don't. If you have to watch an hour of presentations that are not actually happening right now, I don't watch it back. (similar to lectures) Hybrid is nice when you have very physical experiences in between and meet online with others to discuss. Hybrid is nice when you have very physical experiences in between and meet online with others to discuss. Hybrid is nice when you have very physical experiences with your projects and them meeting one time per week to discuss was for some very helpful and watching things online with short videos and practical instructions. Record the most important/official sessions in nice quality for virtual attendees, but not all formats need to be shared with online participants (e.g. paper sessions, papers can be read online) Revinces and practical instructions, it is nice to have people in the room, but people online they can just read the paper and contact me through the paper. Or record plicit videos but not the full presentation. I don't think people want to see that how the work people in the room, but people online they can just read the paper and contact me through the paper.	7.15	18:11	yourself at home and have them be engaging enough to keep the audience around after 3	laptop etc., and I think it's very tough if you don't have professional support and tools to make these videos that people would like to watch and want to continue to watch after 3 minutes. That was a difficult challenge for me to keep the audience involved and inter-
still in your regular work situation which makes it harder to be involved emersed. 1.18 24:00 It is harder to watch back video presentations official. 1.29 25:15 Hybrid is nice when you have very physical experiences in between and meet online with others to discuss. 1.20 26:30 Hybrid is nice when you have very physical experiences in between and meet online with others to discuss. 1.20 26:30 Keynotes, definitely record these in a nice presentations in ce duality for virtual attendees, but not all formats need to be shared with online participants (e.g. paper sessions, papers can be read online) 1.21 27:50 Besides presentation being able to browse through the insights of the research individually, type in a chartorom creates multiple layers and more engaging experience. 1.22 4:00 Virtual interaction can create awkward silences due to audio, not being able to read body language and feel the vibes of the situation. 1.23 4:00 Unexpected technical problems; it is harder for something to go smooth and intuitive virtually. 1.24 4:15 See above Observations and contact in the respective of the situation. 1.25 4:15 Advantage and importance of visiting other countries, different places and cultures when meeting face-to-face. 1.25 4:16 Physically it is easier to build real friendships and later face to decide the submitted friendships and later face to face. 1.26 5 13:22 Physically it is easier to build real friendships and later face to face.	7.16	20:00	tions from home, due to distraction and lack of stimulation. (physically you have enough variety	interested. It is much more relaxed to attend a conference physical. You walk a lot be-
alter than if you watch it live, because it feels less official.	7.17	23:00	still in your regular work situation which makes it	tion, distracted by things to do, it becomes harder to be involved. If you are at home or
riences in between and meet online with others to discuss. at one point we also went hybrid in there, when the students went abroad. Then it was nice because you all had practical instructions. Record the most important/official sessions in nice quality for virtual attendees, but not all formats need to be shared with online participants (e.g. paper sessions, papers can be read online) Response speed and per paper. Or record pitch videos and presentation, it is nice to have people in the room, but people online they can just read the paper presentation. I don't think people want to see that. Response speed and people have response to the shared with online participants (e.g. paper sessions, papers can be read online) Response speed and people in the room, but people online they can just read the paper presentation, it is nice to have people in the room, but people online they can just read the paper and contact me through the paper. Or record pitch videos but not the full presentation. I don't think people want to see that. A webinar by a PhD student who presented his work. That was really nice. It was like a to 10 min presentation presenting his tool that he developed, and then he showed us the tools and we could also, at the same time, see the tool online, browse the tool myself, and then we had this chatroom, where I could chat with friends. That was just an hour. Nice, short but also interactive. Engaging. Diservation: you are not sure whether people can follow you or have struggles with technical problems, it is harder to read body language. Junexpected technical problems; it is harder for something to go smooth and intuitive virtually. Junexpected technical problems; it is harder for something to go smooth and intuitive virtually. Junexpected technical problems; it is harder for something to go smooth and intuitive virtually. Junexpected technical problems; it is harder for something to go smooth and intuitive virtually. Junexpected technical problems; it is harder for something to go smooth a	7.18	24:00	later than if you watch it live, because it feels less	of presentations that are not actually happening right now, I don't watch it back. (similar
7.21 26:45 Record the most important/official sessions in nice quality for virtual attendees, but not all formats need to be shared with online participants (e.g. paper sessions, papers can be read online) 7.22 27:50 Besides presentation being able to browse through the insights of the research individually, type in a chatroom creates multiple layers and more engaging experience. 7.22 4:00 Virtual interaction can create awkward silences due to audio, not being able to read body language and feel the vibes of the situation. 8.1 4:00 Unexpected technical problems; it is harder for something to go smooth and intuitive virtually. 8.3 4:20 Unexpected technical problems; it is harder for something to go smooth and intuitive virtually. 8.4 12:32 Main advantage to meet people physically, are to share experiences, build friendships and received. 8.5 12:57 Advantage and importance of visiting other countries, different places and cultures when meeting face-to-face. 8.6 13:22 Physically it is easier to build real friendships and It think physically it is easier to build friendships. A real connection.	7.19	25:15	riences in between and meet online with others	at one point we also went hybrid in there, when the students went abroad. Then it was nice because you all had very physical experiences with your projects and then meeting one time per week to discuss was for some very helpful and watching things online with
hice quality for virtual attendees, but not all formats need to be shared with online participants (e.g. paper sessions, papers can be read online) 7.22 27:50 Besides presentation being able to browse through the insights of the research individually, type in a chatroom creates multiple layers and more engaging experience. 8.1 4:00 Virtual interaction can create awkward silences due to audio, not being able to read body language and feel the vibes of the situation. 8.2 4:15 See above Observation: you are not sure whether people can follow you or have struggles with echnical problems, it is harder to read body language 8.3 4:20 Unexpected technical problems; it is harder for something to go smooth and intuitive virtually. 8.4 12:32 Main advantage to meet people physically, are to share experiences, build friendships and technical problems and cultures when meeting face-to-face. 8.6 13:22 Physically it is easier to build real friendships and I think physically it is easier to build friendships. A real connection.	7.20	26:30		Keynotes, definitely record these in a nice presentable way.
through the insights of the research individually, type in a chatroom creates multiple layers and more engaging experience. 5 to 10 min presentation presenting his tool that he developed, and then he showed us the tools and we could also, at the same time, see the tool online, browse the tool myself, and then we had this chatroom, where I could chat with friends. That was just an hour. Nice, short but also interactive. Engaging. 8.1 4:00 Virtual interaction can create awkward silences due to audio, not being able to read body language and feel the vibes of the situation. 8.2 4:15 See above Observation: you are not sure whether people can follow you or have struggles with technical problems, it is harder to read body language 8.3 4:20 Unexpected technical problems; it is harder for something to go smooth and intuitive virtually. 8.4 12:32 Main advantage to meet people physically, are to share experiences, build friendships and network. 8.5 12:57 Advantage and importance of visiting other countries, different places and cultures when meeting face-to-face. 8.6 13:22 Physically it is easier to build real friendships and 1 think physically it is easier to build friendships. A real connection.	7.21	26:45	nice quality for virtual attendees, but not all formats need to be shared with online participants	becomes difficult to have a lot of attendees and maybe not necessary. If you have research paper presentation, it is nice to have people in the room, but people online they can just read the paper and contact me through the paper. Or record pitch videos but
due to audio, not being able to read body language and feel the vibes of the situation. 8.2 4:15 See above Observation: you are not sure whether people can follow you or have struggles with technical problems, it is harder to read body language 8.3 4:20 Unexpected technical problems; it is harder for something to go smooth and intuitive virtually. 8.4 12:32 Main advantage to meet people physically, are to share experiences, build friendships and network. 8.5 12:57 Advantage and importance of visiting other countries, different places and cultures when meeting face-to-face. 8.6 13:22 Physically it is easier to build real friendships and I think physically it is easier to build friendships. A real connection.	7.22	27:50	through the insights of the research individually, type in a chatroom creates multiple layers and	5 to 10 min presentation presenting his tool that he developed, and then he showed us the tools and we could also, at the same time, see the tool online, browse the tool myself, and then we had this chatroom, where I could chat with friends. That was just an
technical problems, it is harder to read body language 8.3 4:20 Unexpected technical problems; it is harder for something to go smooth and intuitive virtually. 8.4 12:32 Main advantage to meet people physically, are to share experiences, build friendships and network. 8.5 12:57 Advantage and importance of visiting other countries, different places and cultures when meeting face-to-face. 8.6 13:22 Physically it is easier to build real friendships and technical problems, it is harder to read body language Observation: technical problems, one participant was struggling to get into the miro board at first. To meet people, to build network, to share experiences, to build friendships and to know people that have the same interests or problems that I have But also to visit different countries, to know different places and cultures, to travel think physically it is easier to build friendships. A real connection.	8.1	4:00	due to audio, not being able to read body lan-	Observation: awkward silences inbetween tasks, less relaxed and feeling of tension
something to go smooth and intuitive virtually. 8.4 12:32 Main advantage to meet people physically, are to share experiences, build friendships and network. 8.5 12:57 Advantage and importance of visiting other countries, different places and cultures when meeting face-to-face. 8.6 13:22 Physically it is easier to build real friendships and 1 think physically it is easier to build friendships. A real connection.	8.2	4:15	See above	
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	8.5	12:57	tries, different places and cultures when meeting	But also to visit different countries, to know different places and cultures, to travel
	8.6	13:22		I think physically it is easier to build friendships. A real connection.

8.7	13:55	Coffee time is one of the most important parts at conferences, because that is where affinity and real connection starts. Coffee time gives an opportunity to digest and	The coffee time is one of the most important parts at conferences, that's where network starts to be build. It's where affinity, where we can really connect after thinking about the things that we were discussing formally, let's say. It's when we build connections, we really build connections.	
		discuss things that have been discussed formally previously at presentations, which really connects people.		
8.8	14:36	It's difficult to share things with people virtually in order for them to connect and build a strong relationship.	After finishing this meeting, we are doing now, it's finished, we will not share things that could be essential to strengthen the relationship between us, I think.	
8.9	together in a group, as you can share and build known friendships.		that really reminds me of my first conference experience, so I was very nervous of, you know, going to this conference and meeting new people but then I saw other PhDs and we had a kind of workshop only for the PhDs, you know it was so nice, we made a PhD group and also a chatroom in the WhatsApp it was a very nice experience of building friendships.	
		Be connected with a smaller group of people through WhatsApp or chatrooms, so you can relate with some people on a deeper level.		
8.10	15:10	As a PhD you get credit by attending a conference.	Quite similar to Gustavo: to visit nice places, to get to know the field and also especially for me as a PhD we can get credit by attending a conference	
8.11	15:55	Conferences can be intense for people that don't like or struggle to socialize.	Disadvantage could be for people that are not so much into socializing, that would not be such a fun experience.	
8.12	16:10	Conferences as a process: they allow you to process information and thoughts over several days and approach people who gave presentations later on to share insights and thoughts.	Usually, conferences are like 3 or 4 days and, let's say, I heard one presentation on the first day, but then over next days I can kind of process my thinking, maybe on the last day I can approach the person who gave the presentation and kind of start to kind of share more insights. that's also quite Nice, the process of the other things.	
			(me: Okay it's the sort of a path that in the end that comes together in a way.) Yes! Really kind of sharing the insights.	
8.13	17:15	Like to get inspired by presentations.	I really like to get inspired by presentations	
8.14	17:20	A chance to talk with other people after presentations and see what they think.	Get some others to speak with afterwards and see what they think about things. And expand the network and try to harvest as much business cards and names and numbers	
8.15	17:34	Tangible reminders or take aways (USB stick), that make you think back of the conference and people you spoke to years after. Memorable items or events.	and also free goodies, because then you have something tangible afterwards, so it's no just a conference and then it's gone, but there is still always bags with magazines which you can read afterwards you get some goodies that you have a small reminder if you ge a usb stick you will use it for many years and then you think back about that person that you talked to or, that' really that I like as well.	
8.16	18:05	With only face-to-face conferences you need to be pickier, instead of the possibility of browsing through stuff and do a little bit of activities.	Disadvantage: more time consuming and more expensive the tickets, so I have to be more picky, instead of just browsing and do a little bit of this and a little bit of that.	
8.17	18:55	Possibility of meeting similar people and get inspired. Go to a conference and share insights and takeaways afterwards.	Practitioners can meet similar people and get inspired from that and that also helps the rest of the people. So most of time you are in a team with people that have the same job description, and then only one goes to a conference, and then they try to get as much information as possible and then go back to the whole group and then have a small presentation of what they've learned.	
8.18	20:45	Satisfied and proud to see people interacting, reacting and giving feedback during and after my workshop. Learning from interesting questions.	Seeing all these people responding, they stayed during my workshop, they didn't flee after 5 or 10 minutes. So I was really proud afterwards that I got so many interactions and people questioning and people doing the polls. And also very interesting questions as well.	
8.19	21:10	Worried about nobody joining the workshop.	I was worried before, what happens if no one is interested or nobody is coming to the workshop.	
8.20	22:00	Awkward moments in virtual workshops when participants are working. Facilitator is waiting for interactions, happy about questions.	During sometimes, you have these moments that they have to do something, because it was an interactive workshop, so I was like, ok this is 5 minutes and I would be waiting and sip some water, but very boring and awkward. So I was really happy when people were questioning something so I could be interactive again.	
8.21	22:55	Workshop that are at the same time, so that you cannot see them.	I also tried to see some others as well, but that was a little bit sad, that most of the workshops were at the same time as mine, so I couldn't see them.	
8.22	23:19	Disappointed about low quality workshops	The one that I went to was very awkward with weird questions and I was just wondering how did this person get in there.	
8.23	23:53	In a virtual environment, it feels as if you are presenting to yourself. The presenter must call for action to receive some sort of feedback from the audience.	Academic universe: we only go to a conference if our paper is accepted, which organized the audience (same level, maturity, same themes, same interests) meaning the audience is already interested in this environment. But something that has particularly changed in organizing a virtual conference is that I provide the tools for us to have this interaction between the person that is talking and the audience. While it was natural for people to ask to interact in a physical conference. Now I have to ask, I have to ask for people interaction. There is a vast quantity of people that don't even open the camera. That is horrible for people that are presenting. Sometimes when I'm teaching, I say: People is there anybody there? Could you say hello? I'm not alone here. Just for people to interact. For someone that is presenting. You share the screen and you have the full screen with your presentation and for one hour you are presenting for yourself. What has changed: I must	

8.24	27:05	Nice to record sessions and watch back whatever I want.	So one good thing is that they record the whole kind of sessions, so I could just play listen to the presentation at any time that I want to wanted			
8.25	27:15	Watching back sessions does not allow you to interact with presenter and audience and ask questions.	but still. You know I also kind of when I there were some presenters, I want to ask questions I had to kind of get up in the middle of the night to attend the meeting.			
8.26	28:00	It can be difficult to follow conversations online if you cannot see their face (eyes/lips) and if you are not a native English speaker.	I organized one workshop and it was so difficult: technical issue (video somehow didn't work), then there were native speakers and they were speaking so fast and I couldn't see their eyes or their lips. It was really hard to follow their conversation, basically not really a two-way discussion.			
8.27	29:05	Virtual conference does not allow you to experience the culture and cultural events.	When I attended a physical conference in England, they prepared for the attendees some kind of cultural event. Which is really fun but, you know, for a virtual conference there is nothing like that so you have less experience of experiencing that culture I think.			
8.28	29:40	Virtual conference fulfilled the particpants reason of going on the lowest level, presenting research)	there is nothing like that so you have less experience of experiencing that culture Virtual conference barely fulfilled the particpants reason of going to conferences lowest level, presenting my research) I think it is not as deep as it should be. The relations are more fragile. They are less superficial. We have different cooperations, for instance, with different institution around the world but we've built those connections in physical conferences not the virtual conferences. Exchanging culture is something interesting in the sense of the conferences. I usu to a conference in Mexico, this year it will be virtual. It's completely different. You have different rooms, and sometimes you want to participate at events that he at the same time. When you participate online, you have the possibility to have the video recorded. You have it at a physical conference but it is different to look for a physical conference. Actually I find it more easy, during the whole online era to find new people becau We use slack a lot to communicate with different teams and departments. But yo have a lot of slack communities specifically for people who also have the same jol different companies and they are world wide. And because of those communities actually expanded my network during this time because I met so many new peop I couldn't have met before. It gives you more freedom to do this during work. To with these people and have an online cup of coffee. And normally if you are in the work environment, people are going to look weird at you if you are leaving to have			
8.29	30:10	Virtual interaction is not as deep as it should be. More superficial and more fragile relations.	I think it is not as deep as it should be. The relations are more fragile. They are less superficial. We have different cooperations, for instance, with different institutions around the world but we've built those connections in physical conferences not the			
8.30	31:00	Exchanging culture is interesting and valuable.	Exchanging culture is something interesting in the sense of the conferences. I usually go to a conference in Mexico, this year it will be virtual. It's completely different.			
8.31	31:15	At physical conferences you won't watch back video recordings so easily.	virtual conferences. Exchanging culture is something interesting in the sense of the conferences. I usu to a conference in Mexico, this year it will be virtual. It's completely different. You have different rooms, and sometimes you want to participate at events that hat the same time. When you participate online, you have the possibility to have the video recorded. You have it at a physical conference but it is different to look for a of a physical conference. Actually I find it more easy, during the whole online era to find new people becau We use slack a lot to communicate with different teams and departments. But yo have a lot of slack communities specifically for people who also have the same joi different companies and they are world wide. And because of those communities actually expanded my network during this time because I met so many new peop I couldn't have met before. It gives you more freedom to do this during work. To with these people and have an online cup of coffee. And normally if you are in the work environment, people are going to look weird at you if you are leaving to have chat with someone online. So I actually got more connections from different com and even different countries.			
8.32	32:02	More easy to expand network during the whole online era (pandemic) due to new creations of communities (e.g. on slack). Easier and more acceptable now to meet for online coffee with someone you met through a community, also during work hours.	Actually I find it more easy, during the whole online era to find new people because. We use slack a lot to communicate with different teams and departments. But you also have a lot of slack communities specifically for people who also have the same job with different companies and they are world wide. And because of those communities I actually expanded my network during this time because I met so many new people that I couldn't have met before. It gives you more freedom to do this during work. To meet with these people and have an online cup of coffee. And normally if you are in the same work environment, people are going to look weird at you if you are leaving to have a chit chat with someone online. So I actually got more connections from different companies and even different countries.			
8.33	42:20	Would like to have better technology for better virtual interactions.	The technology for these kinds of things is actually quite low. I mean we have VR etc. but not really something for conferences. So that should be increased for a better experience.			
8.34	42:30	Would like to experience the cultural aspect with the help of technology.	With the help of the technology we can still experience the cultural aspect also online.			
8.35	42:40	Would like to lower barrier for people from industry. Expand research to more industry to make an impact.	It would be nice if we lower the barrier for the people from the industry. So that the research does not remain as just researches but more kind of to the industries.			
8.36	43:35	Creating a real connection with people with the use of virtual tools to motivate us for having a real part of the conference: opportunity to share points of views, experiences and affinities virtually and share afterwards in a real situation.	when I think of a hybrid conference, I think that's something that has a virtual part and a real part so considering these both scenes, I think the virtual tools could motivate us for having a real part of the Conference, so in this order. first, we have the possibility, and the opportunity of sharing point of views and experiences and affinities virtually. afterwards, for us to share it in a real situation.			
		Inspiration while watching and meeting each other.	And this will be the ingredients of this sharing experience in this involved moments: with inspiration (while watching each other meeting each other), friendship (that will be built from this meeting), interaction (that is something very important, because we will build this friendship and this connection with this interaction virtual or real), and in a motivation, in a sense of motivation, because it's not obvious that only sharing the same interests motivates, we have to link something other some yes.			
		Friendship, that is built during meeting.	and the result of everything will be real connection. Not virtual connection. using both sides of this conference, the real in the virtual, we will have as a result, the perfect connection the real sharing of. experience.			
		Motivation to connect through finding a link to something on a personal level (not just sharing the same interest).				
8.37	46:05	Wishes to connect to people in a fun way (have beers together).	First of all, I started out with the whole connection part. So having a beer with each other, discuss things, maybe you can have a collaboration between the different companies. Maybe you can have a shared vision that you can think about it how you can create such.			
		Connect with people through shared vision, deeper level.				
8.38	46:20	Have freedom to see different parts of presentations for inspiration.	Also get inspired: have the freedom to see this one or that one of all the presentations given.			
8.39	46:25	Wishes group interaction in virtual environment. Be in a room together virtually as a group.	We tried Mebo before and then you are all small computer screens walking around, so you have a little bit of group interaction again. Or maybe something with VR or Microsoft I think has Mash, so you can scan yourself and be in a virtual room together, like full body, so that's also very cool.			
8.40	46:45	Having a guide: Likes to be notified about schedule, to be less overwhelmed with all the different impressions.	What I like about the online part is also that you get a notification, like presentation will start in 5 minutes, because I'm so overwhelmed of all the impressions and all the things that you can do, so I really liked it if someone just says ok it begins there, you want to be there. So please get there now.			

8.41	47:10	Would like the opportunity to find people you met afterwards: receive a list of viewers or people you met afterwards, otherwise it is hard to find them if you only know face and first name.	And also get a list of viewers or the people that you met afterwards because then they are way easier to connect with via WhatsApp, LinkedIn etc. Otherwise, you only know their face and their first name and then you'll never find them again and that's a pity.				
8.42	48:01	Ideal to be able to connect afterwards.	So that would be my ideal hybrid experience that I can connect afterwards with it.				
8.43	48:50	Would like the tangible stuff after in virtual environment: immediately talk to others after a presentation.	I am curious how you can get the tangible stuff right after. So you can attend a meeting and then go back to work again, because you have a filled agenda. So that's a little bit difficult. So how do you actually get the extra amount of time, so you can immediately jump in and talk to the other people about it and not be zoned out because there is so many people in the same screen and you just listen to the first two people.				
8.44	51:15		Actually the conference yesterday used hop-in, so when you push a button it will conect you randomly with someone but there was never a person available. This is something I'm using a lot, when you have tools like zoom or teams, you can sprivate messages, you can even have this approach with somebody that is following conference together with you without the others to know everything that you are dussing and that is very nice. That is something that makes it easier for us to connece people that we have this interest on approaching a bit more. Yes then I would like to be able to choose the people instead of being put together random group. I don't know you, It was very awkward and then you are put back. 'co you see the same presentations?' 'no' ehm Because when you have a randomization and be grouped into 4 or 5 people, 'I don't know you, I don't know you.' Then it was really awkward and you don't know what talk about. We didn't see the same presentations. Something that we do in Brazil, we do the first part of the classes together, and after wards, the last half of the class will be in smaller groups. So we have lot's of rooms when the time is done, we call everybody back to the same room and we do this kir sharing and changing rooms in small groups and afterwards discuss in the whole groups and changing rooms in small groups and afterwards. I really liked the course lectures before corona because there was a lot of interactio and every lecture they invited the guest speaker, there were always a lot of question				
8.45	51:30	Use of private messages in order to be in touch with someone that is attending conference with you, without others to know everything that you are talking about. Easier to approach a bit more to connect.	private messages, you can even have this approach with somebody that is followir conference together with you without the others to know everything that you are cussing and that is very nice. That is something that makes it easier for us to connepeople that we have this interest on approaching a bit more. Yes then I would like to be able to choose the people instead of being put togethe random group. I don't know you, It was very awkward and then you are put back.				
8.46	52:20	Would like to choose who to talk to (instead of being put together randomly), so you know what to talk about, initial means of connection.	Yes then I would like to be able to choose the people instead of being put together in random group. I don't know you, It was very awkward and then you are put back. 'did you see the same presentations?' 'no' ehm				
8.47	52:30	If you don't have a connection that you could talk about, it gets awkward.	Because when you have a randomization and be grouped into 4 or 5 people, 'I don't know you, I don't know you.' Then it was really awkward and you don't know what t talk about. We didn't see the same presentations.				
8.48	52:55	First part of meeting in a large group, second part in smaller groups, and afterwards come together and discuss in a whole group, for an ease of sharing experiences.	Something that we do in Brazil, we do the first part of the classes together, and afterwards, the last half of the class will be in smaller groups. So we have lot's of rooms and when the time is done, we call everybody back to the same room and we do this kind c sharing and changing rooms in small groups and afterwards discuss in the whole group That works really well and I think this will be present afterwards.				
9.1	9:49		I really liked the course lectures before corona because there was a lot of interaction and every lecture they invited the guest speaker, there were always a lot of questions from the audience and. There was a really nice like flow and the lecture always made sure to ask, also a lot of stuff				
9.2	10:13		and I think there was a bit more difficult when it went online because you're hidin behind a screen. And it's easier to just not really participate.				
9.3	10:26		even though the lectures were still really interesting online that, from my side there just the lack of concentration and also motivation, because it was over a screen and just didn't think it was that Nice.				
9.4	11:06		I also wrote down something about back then. Because of my Home Office but that those were all the disadvantages				
9.5	11:36		and I was actually quite surprised, with my group projects actually went quite well on- line. Maybe, because a lot of. Things that normally would distract you from the projects are not there anymore. i'm just have a screen you're talking to like. Directly communicating and they have all these helpful tools like miro.				
9.6	13:04		Before I would not even think of contacting people for an interview that weren't at the TU Delft because then you have to do it online and that, in my mind that wasn't even an option. And now I just email people all over the Netherlands and even outside the Netherlands, and then, at the same time, you also have some people that would never be open to meeting online that's now are open to this.				
9.7	13:47		be open to meeting online that's now are open to this. that's super Nice because I learned a lot of interviews, because I was able to do so man and I think in a normal project I would never been able to do so many.				
9.8	14:08		there was a lot less pressure for a little while, especially when I also stopped with flight case which was kind of Nice because I needed that and I also got away for ITD with no coding whatsoever. So, mostly less pressure because the coaches were nicer or like. I feel like it's a bit more discussable to be like I am actually not fine.				
9.9	15:27		I really miss the other people work, especially with ICP I think that would have been super cool because. Usually the projects where it Dr really called interactive and out of the box and i'm really sad that people are able to experience that and also be seeing other people.				
9.10	15:46		And, especially in the beginning it was kind of hard to work closely with my partner we didn't really have a way to do it, yet, especially because it was with prototyping and it's kind of hard to prototype on two sides of a screen.				
9.11	16:28		I got really comfortable at home, so I only I did never show up this was like a hybrid thing, so the lecture was. At the school as well, but you could choose to say home and watch it or watch it afterwards, which was very nice for me because I like to stay home. even though my school is like five minutes, I was like walking distance from my room.				
9.12	17:07		We had a group project in the course and if my friend, Karen didn't know that her friend took the same course I don't know what I would have done with choosing groups, because I didn't know anyone.				
9.13	17:43		But yeah before I knew that she was taking the course I was a bit scared if I had to kind of if I had to reach out to random people.				
9.14	18:14		I was so comfortable at home that when we had to do there the final presentation, or it wasn't graded we had to do a presentation of our project. and I remember, we came to				

9.15	27:10	The people who showed up for me in the lecture when they asked questions after the lecture or during the lecture it was very hard to hear the recording and also sometimes the lecture didn't repeat what was said.
9.16	28:15	Like being home was comfortable, for me, but then I realized that the small stuff happening every day is like when you see stuff I know just birds anything.
9.17	29:10	When I was online I just knew that my face was like really big on the screen. In the class-room and I felt a bit awkward but not too awkward it was fine
9.18	30:13	and then I had the bored SMILEY because online it's just very boring. And I did a lot of online shopping again.
9.19	30:28	When I was online and the rest was in class, it was quite difficult to participate, because there was more focus on the physical attendees.
9.20	31:39	And then also we had online meetings, and it was kind of business or think maybe learnings and then in the evening, we were able to discuss and also have a bit of fun and that sometimes balanced out pretty nicely if. If the meeting wasn't in the evening, or sometimes that would end up us working from nine till five and then from six to nine.
9.21	32:10	for VIP I missed all offline moments because either I to get tested and one point I was really, really behind so it wasn't really an advantage to go. But I really did feel like I missed out on a lot, because some. People talked about it, and then I did feel like I missed out on good feedback or fun experiences and also just seeing other people.
9.22	32:39	And that's because I get a headache because when i'm behind my computer too long, but now because i'm not used to the amount of impulses around me I also get a headache when i'm around people so I always get a headache. And I don't want to be in my room alone, because then I cry and then I also get a headache so there's like no escaping it.
9.23	33:51	we had a hard time, including people who were online if all of us were offline. Because you can just not hear what we say so in a group discussion, for instance, we had a box and then we kind of gave it to the person talking but it still it didn't really work.
9.24	41:31	Because I thought that was quite a sort of a fun way like you had like an Avatar that's why The sim person in there and a virtual place where you could walk around with your avatar. You could go to stand since up with people.
9.25	41:40	the only thing I really, really miss is that you couldn't see the faces of people. So I would still like to have some sort of video integration if you're talking on one.
9.26	42:12	And they also had like these sort of circles in which you could place your Avatar and then you could talk privately.
9.27	42:33	also feels like real because you're still walking around like you would normally do, only on the screen.
9.28	42:43	Can you do something like that, with ar so you have two people are online, they are an ar and then the the the physical staff, maybe ar glasses, or something like that and that way they can see the real and not real visitors both. based on their glasses their location, it can be tracked
9.29	43:28	Because I think my biggest struggle with the everything online is that it's never smooth and that's. Really annoys me like everything is, you have to wait until everyone is silent and then you can speak and then already someone spoke so it's always I don't know we speak over each other.
9.30	43:51	I was also thinking more about the social stuff you can do as well. After like after drinks, or something that it feels kind of real that it feels you're in this space more than just sitting and waiting until it's your turn to speak and awkward stuff. that is more smooth flow. Flowy.
9.31	45:18	how do you make the offline people care about the online people. And then a way could be but that's maybe more visual to have like a disco ball and then there's like this one main room usually on conferences, a main room and then like a disco ball, you have all the people online projected around you so you can't really see them. You just see that they are there, so that's kind of like a reminder that they are there. Or some other way that they are showcased that to kind of get this reminder You also have this online element.
9.32	46:06	What if some of the physical people get a buddy or something. yeah like A virtual body, yes. what, if you have to carry around kind of your buddy or something.
9.33	46:32	so people in jail and then they kind of just go around with an iPad they move around with that to everyone. that's really funny.
9.34	46:45	and that's maybe fits with the next thing I had that you also have some games and quizzes and fun things. if you think about maybe we can find some things that are that are fun for the offline people to do, but they do require interaction with online people, so you have you need both parties to really do it and then they also kind of also mix with each other, because a big part of conferences is also networking
9.35	47:32	hotspots over the world, where a lot of people like places the Netherlands might be a hotspot for certain conferences, so a lot of people from the Netherlands go to the US for something. So what if you have kind of like a local hub, where they go together and then attend the conference online with each other, so, then they still have each other to do certain physical things.
9.36	47:47	and I have Eurovision vibes, because you're never there, but you feel like you, are there, and there are people there and it's only adds to your experience. with the voting you have a lot of online people joining in during eurovision, I think there are a lot of qualities in there, you can use.

9.37	51:34		Maybe you can design a way to say goodbye online because it's always awkward, no matter what you do it's always awkward to say goodbye online.	
9.38	52:17		And then we have teams and then you can we couldn't even I couldn't even see them if I shared my screen, so I just heard a lot of voices. but luckily, they had fun with each other, so they talked a lot, but it was really weird it's really hard to grasp, whether it went well.	
10.1	1:47	A goal to stimulate researchers to be active in the field (design and emotion).	We basically had two goals, to stimulate research on the relation between design and emotion. So by starting a platform it was more than just conferences. We also set up a platform. By doing that we wanted to stimulate researchers around the world to be active in that area.	
10.2	2:22	A goal to promote the industry to be more active in field (design and emotion).	And secondly, we wanted to promote, we wanted the industry to be more active in this field as well. To be more emotion driven in that sense.	
10.3	3:10	Enabling knowledge transfer with activities at conferences, communities, platform or taking part in projects.	We started local chapters around the globe, some were very active at some stage (one in Brazil and one in Chicago). We had a platform where we did a lot of knowledge transfer where we promoted example cases and all the papers etc. We took part in a big European project. But the conference was the main event.	
10.4	4:25	Attracting memberships is needed for sustaining conferences financially.	For a conference organizer it is always a challenge to get the money stream going. We needed membership to survive.	
10.5	5:02	There is an interest in attracting practitioners with more praxis-based formats.	From the industry there is no immediate interest in attending conferences. But we were quite successful in doing that. The topic was hot at the time, so also the industry was interested in that. And we had a particular format for, let's say, praxis papers. So they could also send in a paper, describing a design for emotion practice or case study, which was more interesting for practitioners.	
10.6	6:35	Format of conferences is translated from a research study: Introduction, discussion, reflection.	We have the typical format because it was a common thing for research. Research is about doing a study. And you have results. That's the core of doing research. Introduction, discussion, reflect on what you learnt etc. I couldn't imagine another way.	
10.7	7:30	The traditional formats are more about sending and receiving, which does not spark interest.	The whole paper format has been the dominant format at conferences. So a typical conference would be with 5 or 12 parallel sessions, where researchers present their work []. But it is very much sending, a person in front of the room sending information. It's often so boring, often bad presentations or not interesting. Blablabla.	
10.8	8:15	A lot of choices to make while navigating through all the parallel sessions.	You have all these parallel sessions so at a conference you really have to look, lik do I want to go, sessions, you have all these choices to make, and then you typic what's a little bit in your area of interest.	
10.9	9:00	Uncertainty of what to expect in session (regret and switching rooms).	I should've gone to this one, or that presentation. So they walk from room to room. Or they quit entirely and hang out in the coffee room.	
10.10	9:50	Ambition to attract good quality papers, be picky in the selection, resulting in high quality parallel sessions.	A poor or not popular conference get most papers accepted, meaning many papers are bad. A popular conference gets many papers and heavily selects them. They can afford to have fewer parallel sessions, because they have only selected a limited amount of papers which are high quality. That's the ambition of every conference but it takes some years to get there.	
10.11	11:00	Positive memories of culturally interesting conference (Colombia).	One of my favorites was in Colombia, that was really nice. Because of the people or because of the country? Both, it was a very lively conference. A conference in Colombia is really nice.	
10.12	12:40	Ambition to change format to be accessible to a wider research community.	Change of format to the regular one: To be more accessible to a wider research community. People want to share their research.	
10.13	13:00			
10.14	17:40	Ambition to be recognizable as a conference and stand out (dedicated symbols).	On each and every conference we had a special symbol. So for the one Ankara we had marbles. This one is the nail clipper. This one was from Hong Kong, it was the Chinese scissors.	
10.15	21:02	Location hosts invite conferences for more publicity.	Mostly they do it for publicity, reputation. So for this school in Bogota, not many people knew this school. But because we organized the conference they had many people coming.	
10.16	21:55	Two ambitions to go to a conference: to learn, to meet.	There are two reasons to go to a conference: one is to learn and therefore you have debates and paper sessions, but the most important is to meet people.	
10.17	22:11	Conferences as meeting place for professionals from around the globe: enabling research as an international activity to flourish.	And research is an international activity. So it is not limited by boundaries or borders of countries. So, sometimes you want to do research with this person in Peru or this person in China. So it's wonderful if you can meet each other. So it is more like a meeting place for professionals.	
10.18	23:25	Early in career conferences are important to establish a network.	When you are early in your career conferences are very important to establish a network. To get to know people. It can always help to know people and at some stage you may need them. Later in your career that's less of a concern.	
10.19	23:55	Late in career social aspect is more important: meet old friends and colleagues.	For me nowadays the reason to go to a conference is to see people again, that I haven't seen for a long time. So it's meeting old friends, so I am not so much interested in expanding my network anymore. That changes over the years.	
10.20	24:15	Late in career chose less sessions to join (pickier) and prefer to hang out.	Late career people are also more picky on where they go. Also with the sessions I attend. I mostly hang out with people and meet for coffee or lunch.	
10.21	24:55	Conferences as party place that you get paid for: busy socializing.	It's a party place. People don't dare to say this but it's one big party. It's ridiculous because you get paid very well to fly across the globe, and of course you see some keynote sessions, but most of the times you are busy socializing.	

10.22	26:06	Some universities slowly change in giving academics access to conferences without paper submissions.	In the past it was really like you need to have a paper in order to go to a conference. That was the business model. And that has changed over the years. And I also internally promote that they go to a conference if they somehow participate, in a workshop or discussion or whatever way, it's fine. That's not the case everywhere. The business model is changing but slowly.		
10.23	26:44	Late career academics might be able to have access easier without paper submission.	But that also depends on your career level. When I want to go to a conference, I can go. Within limits of course.		
10.24	27:18	Academics don't present takeaways of conference to colleagues.	Talking about takeaways: Yea, I mean you don't have to do a presentation to a group or so. You could do that. Some people do.		
10.25	29:00	Conferences will change to a place for interaction, exchange, and meeting.	There is less need for paper presentations and to keep that model intact. So I think what the consequence will be, that more and more the conference will be a place for interaction, exchange and meeting. So maybe at some stage, conferences will stop having those paper presentations all together. And that's actually a good thing. That's an old model. We should make it less prominent.		
10.26	29:58	Place for people to talk about themes and co-create, resulting in joint initiatives.	So it will be much more like a place where, based on particular themes, we will sit together and facilitate that people meet and discuss stuff and come up with ideas. Joint initiatives and that kind of thing.		
10.27	31:28	Universities send academics for them to create joined research and build a reputation.	So what is inevitable is that someone pays for people to go there. But they have an interest, as a result you meet people and you get to do joined research. It is good for your reputation. So the university has a reason to keep sending people to conferences.		
10.28	32:35	In need of facilitating and optimizing idea and knowledge exchange and meeting people in a hybrid format. If hybrid is the starting point, what would be the best format?	And the other thing is of course, if you keep having those two types of motivations to go there, which is to learn, so you need to have some kind of an exchange of ideas and how you facilitate this via a workshop or a debate or any other format. So there will be new formats invented and tried out. And what I think would be interesting for us is the question: what formats would be ideal for a hybrid conference? So instead of thinking how can we make an existing format hybrid? Think the other way around, if hybrid is the key model, then what would be the best format. And maybe you don't have paper presentations at all. So, how can you optimize the exchange and the learning in a hybrid format?		
11.1	1:50 Online conference like a festival experience, where you have the schedule and people can enter whenever you want.		to sit behind your desk for one full day for talks and workshops it's way too much so let's spread it over the week and then we were thinking okay it's more like a festival, where you have like this schedule, where you can enter whenever you like and it's. More like we want to have the festival experience so that's the reason why we call it a festival.		
11.2	2:28	Goal to help the community grow and get inspired.	our main goal is to help the ux research community grow and get inspired		
11.3	2:35	In a relatively new field (UX design) it is difficult to find people and knowledge. Therefore, gathering to talk about specific topics and what they struggle with.	it started as being just meetups with other researchers here in the Netherlands and it's a relatively new field, and a lot of people were struggling how to do stuff and it's difficult to find knowledge and find other people that can help you out so we started doing meetups where researchers just. gathered for once every three months, and then talked about a specific topic what they're struggling with and we invited some speakers, and this was like the birth of the ux inside conference.		
11.4	3:42	Feeling like a part of a community in which it is safe to share.	but what we also find very, very important, this is the sense of community. is being part of something and interact it's feeling safe to share and it's not we don't want to broadcast findings like have talks and then just send them into the world because we are the experts, and we want to have like people doing a talk and then a lot of opportunity for our attendance to discuss and share their own reflections and findings. so it's about interaction and community.		
11.5	4:42	Knowledge from universities is not easy to apply for work in the field, because it is very theoretical and specific.	we do want to have the connection with the universities. But it's very difficult because often the knowledge from the University is not very applicable easy to apply for our work in the field, because it is very theoretical and specific.		
11.6	5:46	Invite speakers or hosts from universities to connect.	We work together with some universities, for example, TU Delft or Eindhoven, and we also had speakers.		
11.7	6:49	Create an interactive session / workshop the day before the in-person conference in smaller groups to create the opportunity for people to meet each other without being immediately in a large scale conference.	in the in person event we always do the interactive sessions, like the workshops, the day before the conference with the goal that people. If you are attending in a conference where you don't know anyone it's very scary you have this first day and you have joined the session workshop in smaller group, and then you get the opportunity to meet some people, we feel that it makes it easier to find those people again the next days when you're in this large conference, we are not that large, but about 300 people there, so it can be very lonely.		
11.8	7:40	In online it is more difficult to connect, so it is necessary to find ways that people can interact and be part of a session.	online it's even more difficult to make this connection, so what we do is with the interactive sessions it's we try to find ways people can interact and be part of the session.		
11.9	8:12	People get lost with too many different platforms and involved technology. It needs to be kept easy to not overwhelm.	but it was very difficult to have the hop-in platform and also the zoom platform and people had to register for the sessions, and it was so difficult and people got really lost. So this year we thought Okay, we cannot do this, we have to make it easy.		
11.10	8.50	Do polls or chats to keep online people engaged and have them participate.	so we did discuss with the facilitators try to either do a poll or something in the chat. Or maybe like this would ask people to participate in anyhow.		
11.11	9:04	Making random connections (connect button hop-in) can be fun but also scary as they don't want to be in a conversation with someone that they don't know anything about.	in the hop-in there's also there's a network functionality, you can go there and you press a button and then you're connected to another person at random. this is really fun, but there's it's only applicable for part of the attendance, some people are so scared they. They told us we don't want this. I myself, I find this very scary to do. And then you're in this conversation with with one person you don't know anything about.		
11.12	9:57	Have people get connected in different ways. Example: miro board with fun low-key activities for in-between.	We also thought, how can we make sure that people have an opportunity to connect in a different way, so we also provided a miro board where you can share some information to connect with other researchers, but also fun things like draw your own face. It was more like a fun, low threshold ways of interacting with other people.		

11.13	10:55	Micro community at a conference enables peo- ple to share and discuss things with a smaller group of people and experience the conference together.	they offered like cohorts it were smaller groups of people, you could connect with, and then you attended the conference virtually with that group so you met every day for a specific time and discussed all the talk he saw and then you went over to see the talks again and then discuss them with this smaller group.		
11.14	11:38	The main goal to attend conferences is to meet other people and make a connection. If it is just about the talks, you could also watch Youtube or	I think people, not everyone, but I think, for we every year we ask people, why do you attend them, what do you like and don't like and.		
		Ted.	A large group of people really likes attending a conference, because they meet other people other researchers, this is one of the main goals to attend the conference, because if it's just about the talk, you can also watch Ted or YouTube. it's also about the connection, so I think that is really, really important.		
11.15	12:38	Miro-board / low-key activities enabled people to participate at a conference in-between.	I really liked the miro boards. Because there was a lot of interaction and fields that people participants participated in between, so that was nice.		
11.16	13:00	Four speakers with Q&A enables enough space for discussions and questions from the audience.	All of our talks are pre recorded, most of them are so we had four talks, and then we had a shared Q&A. With the four speakers, and that is really nice because you have like these four people and they have a conversation about the topics and there's a lot of room to ask questions from the audience and.		
11.17	13:47	Q&A function where others can vote is engaging online participants.	In hop-in, there was the Q&A functionality, so people can ask a question for a Q&A other people can vote. And that is really nice.		
11.18	11.18 14:00 People tend to dare more to ask questions in an online format, because they do not have to stand up with large crowds and a mic, which might be		if you talking about hybrid, I really like the online version of the Q and a because in the in person People are more scared to ask a question, I guess, because we do always ask do people have a question. And you are happy if there are one or two questions from the audience.		
555.7			So well online you have loads of questions. So I really believe that a lot of people don't want it being in this large hole with 300 people's and standing up and having this mic in your face and All the people staring it might be scary but. Just dropping your question online is is easier, so I really like that about online.		
11.19	15:32	Selection of questions by organization, and the host can read out the questions, enables structured Q&A online.	then we selected the questions as the organization and put the questions on the screen, so the host could read the questions from the screen.		
11.20	16:30	In an online experience you are never completely there, as you get easier distracted with other things to do.	it is a real downside of the online experience because you're not completely there and you're distracted and if you're answering an email in between, and then have to go back and listen to the talk it's difficult I guess.		
11.21	17:25	People care more about inclusion and accessibility, efforts such as including captions are appreciated.	what was also very interesting to see because our talks are pre recorded, so we have the captions so the talks were in English, but we had English captions. last year, some people complained about it, can you please turn down the captions and this year we got really much compliments. Great that you make it more accessible to people and they yeah felerally like people appreciate the effort we took in providing subtitles.		
11.22	18:30	See above.	i'm not sure why it wasn't last here, but I do think, maybe, people are more aware of the accessibility and inclusiveness. But it's more inclusive it's it's even, not even for people who are not able to hear well but also if English is not your native language.		
11.23	20:24	Shorter talks to keep it concise online.	For example, the talks are shorter.		
11.24	20:40	Prerecorded presentations are time consuming but lead to better quality of talks.	uming because people had the speaker heads are pre record and we said Okay, you have 20 minutes. They needed to practice a lot to keep in the 20 minutes, no, I think the beneficial for the quality of the talks.		
11.25	21:08	More entertaining to see a person on stage live.	I do think that's talking in person is more entertaining to see someone on stage.		
11.26	21:58	Research community evolved from reaching for attention to trying to include other people and grow the team.	The research community it's completely different it's growing so fast now. 10 years ago when we started the most important thing we talked about was how can we make sure that research is done. How can we have a seat at the table, how can we have impact, how do we make sure that that people listen and now one of the major topics is, how can we include other people, how can we teach non researchers to do research, how can we grow as a team. How can we share our insights.		
11.27	22:45	Maturing research community is looking for ways of mentoring (many junior but few senior researchers).	there are too few senior researchers and a lot of junior researchers, so that is a struggle, how can we provide mentoring and I think the field of research is getting more mature.		
11.28	23:26	Ideally, in future research should always be incorporated in the product development.	Ideally, research is always there and always integrated in product development or service development. And we are not there yet.		
11.29	24:21	Large organizations start looking for more researchers.	because they are growing their team and they're looking for more and more people so that's great that's great if large organizations are really communicating to the world's we need more research instead of we researchers telling to the companies, we need more research		
11.30	25:10	Conference as a melting pot of knowledge: bring people and knowledge together.	the main goal of this conference is to bring people together and knowledge together it's like a melting pot of knowledge		
11.31	25:27	Go to conference to check if you are on track.	and it's also about understanding, where you are in your personal growth or in the growth of your organization. it's very good to have one time, a year attend a large conference and see okay we're on track or We have lots of steps to take		
11.32	25:44	Go to a conference to feel like a part of something bigger than just your team / colleagues.	and also to grow your network and meet other people. And feel part of something bigger than just your team.		
11.33	26:22	Online is completely different from the physical participation, what should be the differences and how do you integrate both worlds?	I think we will not go back exactly how we were two years ago. But I talked to other conference organizers and we discussed it with our team as well it's not that easy to think of a hybrid format that works, because online is completely different than it's not the same to just broadcasting it online, you have to make some differences and to integrate both worlds. very interesting but also challenging.		

11.34	27:18	How are people interacting with one another?	I can imagine that we, for example, have like this in person Conference, and we have speakers on stage or maybe we also have speaker pre recorded talks and broadcast them on stage and people are there listening and we broadcast it live that's no problem, but the interaction, how are the people interacting with one another, how do you organize that.		
11.35	27:50	Do we have two versions or do we intertwine those two worlds? Would like to have two worlds intertwined.	And do we have like two versions, then we have like the online experience and the in person experience or do you also try to intertwine those two worlds? It would be great.		
11.36	28:43	Participants from richer countries would like to continue to go in person and visit interesting and entertaining places.	I think, from the richer countries and the richer companies. That really like to go to a conference in person in a country in a city, they would love to visit so it's also about having fun and being in a new environment so, for example, if you organize your Conference in Barcelona it's probably more likely than if we do it here in Breda. So that's one of the reasons people try to visit conferences, because it's just fun to do so.		
11.37	30:14	Altering the ticket price for people from poor countries to be much more inclusive.	and also we got some attendance from very poor countries and we had the ticket price altered for them. If you're from a low like Bangladesh or something you are not able to pay the same price as someone from the states. so they are able to attend, they will not be able to attend an in person conference in the in Europe.		
11.38	31:45	Would like to incorporate a micro community.	I like this rosenfeld idea where you have this micro Community at your Conference.		
11.39	31:56	See above	I think we had the same thing with the in person Conference, where you have the workshops day one, so people can meet in a smaller group and then. If they want ke connecting, they can.		
11.40	11.40 32:34 Creating a challenge with the goal to have people meet and connect in a small group and safe space. People don't want to have too much to do at a conference, besides all the parallel sessions.		In smaller groups work together and help an organization nonprofit organization improve their websites. And our goal was that people can meet other researchers in a small group in a safe space or something, however, it didn't work out because people were already so busy with all the talks and all everything going on that they didn't have the space to also do this challenge together. it's the way we organize it because challenge was every day. And then you had to meet a group every day in between.		
12.1	1:13	The goal of a conference is to connect people.	the goal of any conference is to kind of connect people primarily so give them a reason to kind of like to Travel to one place or even if it's a virtual place and catch up with colleagues find out about the kind of latest work.		
12.2	1:44	A place to forge new relationships on professional basis.	forge new relationships you kind of like professional relationships working relationships		
12.3	1:55	A good conference is a memorable experience.	To mainly have a memorable experience to, I think, because everyone kind of remembers good conferences that are they also remember the terrible conferences to but they tend to be, they don't they don't really help you a bad conference doesn't really help.		
12.4	2:06	Conferences help people to develop (personally, research interest, connections, status). Conferences as a social marketplace for career and reputation building.	conferences about helping people develop themselves personally their research interests their connections their status to something that really too, if you do a good presentation and you win the best presentation prize, you know that that enhances your reputation. So there for me, there are about about like they're a bit of a marketplace lots of things happening lots of different activities. Things to get involved with as you I think that's quite a good metaphor, because you know, like different people organized different kinds of events there's lots of people involved in organizing one way or another.		
12.5	3:19	Conferences as an opportunity to try out new ideas.	I guess also for me there is an opportunity to try out new try out new formats or or ideas. you end up with quite a lot of money to spend so you can, if you spend it wel you can you can introduce ideas, without people kind of knowing as an organizer.		
12.6	4:34	Conference applies cultural vibes from the hosting location: Brighton seen as a progressive and hip place, all food offered was vegetarian. Conference as a place to change perceptions and norms, by 'shocking'.	When I organized the drs conference in 2016 in Brighton and it's quite a progressive kind of place, you know lots of lots of vegetarian restaurants kind of people doing yoga people in tune with you know kind of kind of Liberal outlook. everyone's quite young it's a sort of like a kind of next generation feel to the place, you know. normally when you go to a conference or conference dinner is you know you go to a big hotel and you'll sit around tables and someone comes up and says, would you like, would you like chicken or fish, you know, for your for your main idea, so we decided we would make the whole all the dinner vegetarian. what I like is this is slight change of perception that we've managed to get this kind of idea we've managed to shift the kind of norm somehow.		
12.7	6:08	Conference organization and formats as an illustration and experience of particular subjects.	I think for like a design conference that's a nice thing to do is. to design a conference so you're illustrate you're not just researching a subject but you're kind of illustrating it in the organization of the conference.		
12.8	6:34	Conferences after pandemic (DRS2022) seen as a chance for reconnecting with the community and reflect back on the year and research performance/contribution.	and then for this specific conference drs 2022 I mean I think it's. Here it's about kind of reconnecting as a big community of design research and actually maybe it's an important conference because of what's happened to us and how we understand that as a design research community and how we. How we assess. What how we performed I guess during this sort of critical phase of the planet, you know whether did research really made any contribution at all, or how should we do things differently or How has it changed the subject area, so I think this is a conference about. How you reconnect to the Community.		
12.9	7:24	Hybrid conference as a chance to grow the subject area.	also how you grow the subject area, to which I think the hybrid conference is a nice idea because potentially you have a lot more participants joining the conference.		
12.10	7:53	Create meaningful trace of conference in the hosting place by applying design to some problems in the city.	yeah and I also think for this conference it's important that the Conference give something to the host the hosting place. Normally, the place is sort of untouched, at the end of it all, but I think what will be nice about Bilbao, is that we try and engage with some of the problems that they're having as designer searches, so we make more of a connection to the place.		

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12.11	9:14	New format, DRS labs to have the conference contribute to the local community by finding solutions to certain problems. Make a positive impact and show gratitude to the hosting place after leaving.	So we came up with a new format so we've got this drs labs format. the labs is an opportunity for people for local businesses or local organizations to let us as organizers know what problems they're facing. Or what they'd like us to work on and then, and then the drs as a community identifying people that could help with that. And then during the time of the conference or before the conference or after the Conference working on that problem. And then, presenting some kind of results so it's so it's bringing the people that are coming on just good shifting in terms of you know their research papers to the conference, but also contributing to the to the local community.		
12.12	10:39	Conference formats are tweaked and evolve over time. What happens at the last conference has an impact on the next conference.	In general we sort of like evolve, so we take the formats from the previous conference and try and keep those or maybe tweak them a little bit. So we have other kinds of interaction.		
12.13	10:51		so there's the paper sessions a traditional way to present a paper at a conference, then we have conversations sessions which are. People exploring a topic area through dialogue and discussion. Then we have kind of workshops, which are like. you're learning are kind of practical skill or you're learning about someone else's research through doing. Those three formats and then we have that we normally have a kind of PhD conference or mini conference or series of workshops where PhD students get to develop new skills and they get to meet see more senior researchers to comment on their work, to which they may not get from their supervisors in universities.		
12.14 Conference as a narrative of topics: DRS labs fits to the sustainable awareness, people flying in also leave a positive impact behind when they leave. Bring something of value and leave something of value.		to the sustainable awareness, people flying in also leave a positive impact behind when they leave. Bring something of value and leave something of	so the laps are kind of something new, this this time, but I think it kind of fits with a Growing narrative of sustainable awareness. keeping an eye on the overall carbon footprint of the Conference, so you know that calculation of people flying in from other continents. They don't just fly in and fly back again they fly in and bring some something of value and leave something of value. So that we can. balance out the costs and the benefits.		
12.15	13:10	Next conference after the pandemic as a chance to show interesting work on what people have done in term of the corona crisis.	there'll be some interesting work to show to you know, certainly in terms of like the corona crisis and what people have done around that. I think it has, for me, it has a good potential to be a really key conference		
12.16	15:47	Conferences became larger and more international due to large audiences and more engagement.	I think in the 1990s that's when we began to hold more international conferences so that's when we can became a bit more international we've held conferences in Thailand in Canada and Australia Sweden. we've always had a discussion list. That was quite international because it sort of people can just post to a discussion this and I think it was clear that there was a kind of big international audience. And from that, I think you know, promoting the conference through that kind of lists meant that there was quite big engagement.		
12.17	17:51	When conferences become too big, it is harder to try new things and innovate.	We usually sell out the conference quite early on and they could easily become a lot bigger, I think, but then they become very, very big and then it's very difficult to try new things and innovate, the innovation sort of gets lost in the size of the thing.		
12.18	18:31	Creating more debates between people in for- mats about subjects, for more discussion and content.	rather than having a like a keynotes one person as a keynote they had debates, so people would make a subject that wasn't about the person, it was about the subject, and that was a very that I felt that was a very good change.		
12.19	19:00	Sequence of conferences: The shape of a conference, also affects the future shape.	sequence of conferences that came after that were kind of originated in that 2014 Conference, so you can sort of see the way that you shape a Conference also affects the future shape or future conferences. they kind of evolved from one conference to another.		
12.20	19:51 Academic community changed due to online era, in which everything is instant. It is easier to follow people and get responses instantly. People have less time to develop thing out of sight.		it's obviously a lot more on everything is online and everything is instant too . So it's like everything is speeded up, so people will have kind of less and less time. And there are less and less surprises in a way you're it's much easier to sort of like follow someone and know what they're working on and have communication with them and that's the biggest change for me is the fact that it's 24 hours a day, you know if someone submits a paper to something, and they can get a response instantaneously and. Everything is it's more pressure, but it's the time that's changed so people have less time to sort of develop things out of out of sight, I think.		
12.21	20:55	Research has become more accessible and recognized by others (like universities).	universities have changed a little bit too they become more international. And that's kind of opened up. The accessibility of the research area too. So there's more people that are aware of design research is an area, I think and universities are beginning to recognize design research as a as a useful research area.		
12.22	22:30	Conferences is time away from your job.	it's time out from Your normal job.		
12.23	22:35	Conferences are an opportunity to connect informally and build friendships.	it's having the opportunity to connect informally with you know colleagues and friends, you know quite old friend you kind of build up friendships at these conferences.		
12.24	22:47	Attending conferences help to have focused discussions.	I think it's just focused discussion to you know it helps you focus and plan your own research in the conversations that you have.		
12.25	23:29	Conference as place to connect and reassuring that other people are interested in similar things that you are. Creating purpose and confidence.	But I think there's just a need to connect with other people, I think, in your discipline and conferences provide that. it's reassuring to some degree too that people are interested in the same things that you're interested. Whereas your colleagues at university might not be interested in those things so it's it's yeah it's kind of reassuring it builds confidence it builds you know kind of purpose. And I think that's difficult to replicate on social media and other other forms online.		
12.26	24:45	Wishes the conference to become bigger and yet keep the spirit / charm.	For future: How the conference can get bigger but keep it's kind of spirit and evolve slowly over the over the years, maybe take advantage of new technology.		
12.27	25:02	Wishes to have a bigger impact with outcomes of the conference and subject care (e.g. government recognition or involvement with hosting place)	But also become more influential you know so that. In 20 years time if we hold a conference in a certain country, it would be nice if you know, there was some government recognition or local government recognition. Or you know involvement with the place or The importance of the subject care was kind of recognized		

12.28	25:32	With more engagement and impact (through laps) there is opportunity to reach people outside of the research community, and bringing them in.	and again with this conference, this is that is the first step, you know the laps and the engagement and the impact. Are the first step in in making people outside of the research community aware of the subject area and how it can benefit a wider community, and I think over the following conferences, I think, bringing in people further away in terms of the research communities is going to be important.		
12.29	26:29		Practitioner conferences tend to be more about talking rather than, I mean all companies are about talking, but research conferences are about doing work and reporting work. And it's not just kind of describing the projects that you're involved with so there's something more there's something more fundamental about research conferences that I think different from practitioner conferences.		
12.30	27:48	Practitioners cannot use academics insights (not practical) and are often disappointed.	But generally the practitioners that we've had that come along sort of quite often get a bit confused about. What we're actually doing as an activity in design research because it's not about practice and they see something as being a bit you know it's too academic and it doesn't you know. I can't use it, you know it's not a tool it doesn't. Sometimes they're a bit disappointed about what they find.		
12.31	28:40	Practitioners are more focused on the doing and outcomes of design.	a researcher has a research, you know sort of research program or things that they're interested in that that go beyond practice, I think. And a practitioner looking to come along to a research conference is also looking for something they're looking to sort of like for for for ideas may be or concepts that they can use. But they're generally more focused on the doing of design and the outcomes of design and You know the cool things the latest things.		
12.32	29:30	Practitioner or designers are interesting people and always have good stories to tell.	often with very interesting people you know other designers are interesting people, and so they always have good stories to tell.		
12.33	30:07	Make design research and knowledge more accessible, as a key driver.	I think it's essential that we that we do that if you know just to increase accessibility, I think that's one of the key. The key drivers, I think, over the next 10 2030 years is to make design research, knowledge, more accessible and people that can't afford to travel or they you know they just want to find out about the latest research for their own communities. The hybrid model allows them to do that, I think.		
13.1	1:55	Why would people want to attend a hybrid conference?	And there were kind of grappling with the question how to do this hybrid what is hybrid. And why, why would anybody want to attend a hybrid Conference		
13.2	3:37	Want to create an experience where people feel part of something bigger. In the moment	We want to create an experience, where people feel in the moment and feel part of something bigger.		
13.3	3:49	Make people feel it was an important moment and good use of their time. Needed.	even if it's online we want people to feel like they have made a good use of their time. And so, through the preparation to attend the conference, whether you're doing a paper short or long paper, whether you're going to do a workshop if you're a practitioner or researcher. We are trying to think about the kind of experiences that you would like to have that could make you feel like it was a good use of your time, and when you left the conference. physically or digitally you would say to yourself that was really important that was that was an important moment a i'm glad I went to that.		
13.4	5:42	Adding a hybrid format creates complexity.	of the challenges is thinking about what it would be like, if you were online, but people were in people will also their face to face because fully face to face or fully online are easy. imperative to the hybrid option, the hybrid format creates complexity.		
13.5	6:25	It is easy to measure a successful conference on whether it was a good use of attendees' time.	So it's easy to reflect if I asked you, you know Was this a good use of your time and you said yes or no. I could kind of from that point of view determine that we've done well.		
13.6	6:44		and what might be for you a good use of your time might be slightly different to me, and yet it's still being a good use of our time, so I know it's kind of an informal measure at this point.		
13.7	7:28	Short paper format of research in progress accessible for practitioners.	the short papers really like much more research in progress accessible for practitioners were talking 1500 2000 words, not a lot.		
13.8	7:42	Long paper format for academics looking for strong feedback for later work.	Long pages is more like four to 5000 words and that would be for researchers who really want stronger reviews stronger feedback through which they can build general outputs.		
13.9	7:55	Workshops for trying, testing things and collecting data.	but of course we would also have workshops at the conference, where people can try things test things collect data.		
13.10	8:07 More interesting and exciting debate with tension through tension dialogue (contrary points of views speakers).		instead of keynotes having kind of like a tension dialogue where you have two speakers from Apparently contrary points of view, so they might even disagree that could be interesting.		
13.11	8:26	Incorporating practitioner stand up events to share practical challenges that they face.	we're also thinking about having practitioners stand up events or roundtables where practitioners can really share some of the practical challenges that they face.		
13.12	8:42	Social activities for face-to-face participants.	Of course we'd love to if it's face to face have a social dimension, so you know it didn't it would be nice and welcoming drinks would be nice.		
13.13	9:21		Our community seems to be kind of increasing in size, a lot of people are interested in the systemic perspective. Bring that into design practice or into design research so it's quite interesting space to be in.		
13.14	10:36	Conference as reinvigorating: feeling transformed and come out on the other side with new and very valuable things learned. It gives new energy and you feel energetic and excited to get back to work.	attending a good conference you really feel sort of transformed, on the other side you've learned some things that have really been very valuable to the work that you're doing. you've come through the other side of the Conference, and you feel reinvigorated you know you feel energetic and feel excited to get back to work that's what a good conference can do.		
13.15	11:17	Conference content should be up to date and relevant for future.	I had a conference in London, a few years ago and I just thought this is bad, this is just this is content that's about 10 years too late, you know the it's not even relevant what we're talking about.		
13.16	11:55	Design community as very open, collegial and supportive with constructive feedback and warm conversations.	some academic communities are very open and very collegial and supportive when you present your paper you get a lot of constructive feedback and it's a nice warm conversation. Like the design community.		

13.17	13:20		there's that kind of culture that creeps in from academia of it's very elitist and Peter Lloyd will know what i'm talking about. it's kind of the old school mental up mentality of what a university is.			
13.18	14:20	Wants the community to be warm and collegiate with critical discussions to advance.	I think it's this kind of warm collegiate yet critical. Constructive and critical discussions that advance all of our work together.			
13.19	14:35	Would like to see team effort in academic community: build pathways to the kind of solutions that we'd like to see.	Yes, so the role of science, I think, is to really not only understand how things are, but sort of be able to build a pathway to the kind of solutions to kind of society or economies that we'd like to see and that's not that's a team effort so. I think it's already in that direction, some fields more than others.			
13.20	15:43	Conference as a place of bundled energy to create a focused experience.	I think the conference itself is really a locus of energy so there's lots of people putting their energy into being there to present some work. So it's a very it's a very focused experience.			
13.21	16:03	Learning unexpectedly new things is reinvigorating.	And the nice thing is you go and you open your mind up to learning and when you learn something you didn't even expect it is very instrumental in your own work that's really, as I said, quite reinvigorating.			
13.22	16:28	Travel to a new context opens mind and unfixes. Creating intensity with academics being together in one place.	I don't think Social media really allows for that it doesn't give that kind of intensity. would say it's the intensity of everyone being in the same place at the same time i'm really trying to open up their minds learn new things challenge each other there's an intensity to that and also. physically if you can travel somewhere, and you can be in a totally new context somehow that helps as well, like that helps you just unfixed and just open your mind up to be in a completely new environment.			
13.23	16:59	Conference like a festival: you are celebrating in one place together with people of same interests.	So you're all doing this together, so it becomes a bit like a festival.			
		one place together man people of same interests.	Me: yeah and then you're much more immersed maybe also and just surrounded by people that are interested in that stuff.			
			that's what it is it's kind of like a festival it's kind of it's kind of has celebration and it's it has an intensity to it.			
13.24	18:14	Conference as a reunion of seeing good friends and colleagues from the community.	A good conference is it feels very much like a celebration, and of course in academia always lovely to see you know for my international colleagues. catch up with past colleagues from former universities me people who are part of the Community, you kno you do make good friends. so it's also a bit of a reunion.			
13.25	18:54	Online content for more accessibility.	online content there for you to go back and see I can imagine the online content all for a lot more accessibility.			
13.26	19:13	New business model for online content for it not to be open and misused: a Netflix or you tube channel of conference content.	i'm just cautious that conferences shouldn't become like free data. You know, so I think it's still important that, in order to get access to that information that you attended somehow that you contributed to that energy happening and being so successful. I can imagine there's a business model of selling the content, after the conference itself. You know kind of a netflix of conferences			
13.27	20:27		and to say Okay, if you can't travel, you can attend. is very exclusive. To be people who won't have the funding to attend, for example.			
13.28	20:47	Carbon footprint tally: people might keep track of their carbon footprint and decide how many conferences can be attended physically and virtually.	There is also a sustainability element, and I think what might happen in the future is, you know that we kind of CAP ourselves as to the amount of conferences we can attend to um physically and we kind of keep. keep a tally of our footprint, you know and that somehow you might be able to offset that. So that'd be kind of a carbon price there.			
13.29	21:58	Which medium (websites etc.) can host complexity of hybrid?	just trying to think about time zones. trying to think about formats of speaking trying to think about what we need, before the conference begins, so what material. Trying to think about a website that would be able to host the complexity of this with different tracks and different zoom links potentially and.			
13.30	22:41		in some sessions there'll be a watch and learn watch line and listen kind of model where you are online and you can't interact, but you can, of course, listen. I think there might be more hybrid sessions, where. And this also depends on the rooms capability as well, I think. That you might be able to interact much more openly in a hybrid setting. So people online would be able to speak, be able to present be able to take part in discussion verbally.			
13.31	23:44	Experience is highly dependent on functioning of technology.	I mean even like do we have stable Internet. If we don't then it's just it's just so such a bad experience isn't it so.			
13.32	24:02	Face-to-face conferences are more intuitive and easier to plan.	As a task to produce an online Conference, it does feel quite daunting. um whereas usually face to face it's more simple it's more like: okay be here at this time between these hours and we'll figure, the rest out, you know.			
13.33	25:40	Do online people feel left out? Do face-to-face people feel disrupted my online people (flow)?	I think this question of. What would be the experience, if I was online. And there were people in a room face to face. And then reverse it, and so the ask is are well i'm face to face and their people online and. It feels like they're kind of bothering us they're disrupting the flow of yeah this natural session.			
13.34	26:12	* * * * * * * * * * * * * * * * * * *	I think working on either side to try and find some find some.			
13.35	27:01	Travelling to a new place away from your normal environment helps in looking at your work with a fresh set of eyes and reflect.	I think there's something wonderful about that traveling and just being in such a new environment that It makes it easier for you to question your own work and do some reflection.			
		<u> </u>	<u>:</u>			

Appendix E - Context (worldview)

1 Miroboard link

Link to clustering factors to worldview: https://miro.com/app/board/o9J_IFSNVaY=/?invite_link_id=947882631693

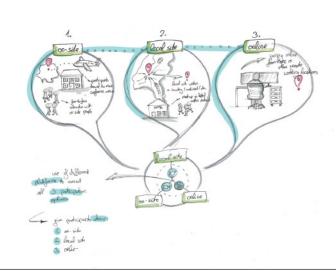
2 Visual worldview

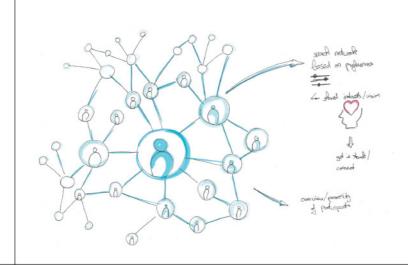
Appendix F - Ideation & conceptualization

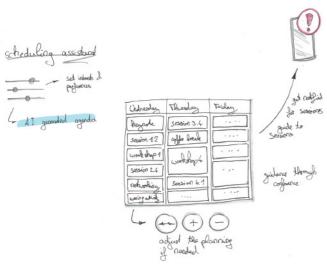
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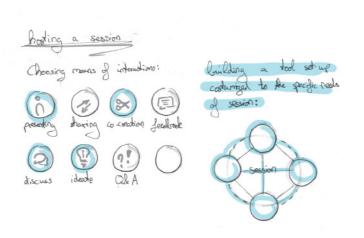
Miro board link to my ideation and conceptualization phase: https://miro.com/app/board/o9J_I71TECA=/?invite_link_id=736001603062

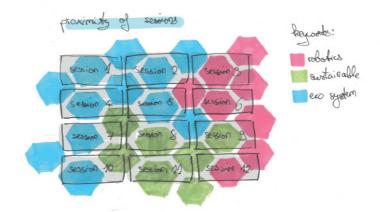
2 Idea sketches

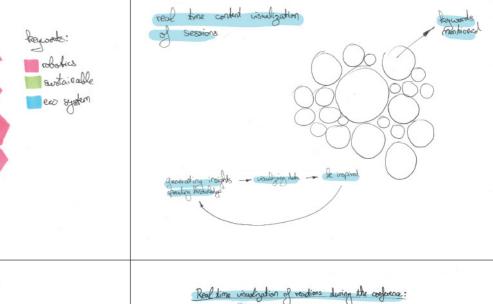




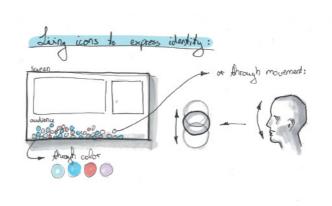


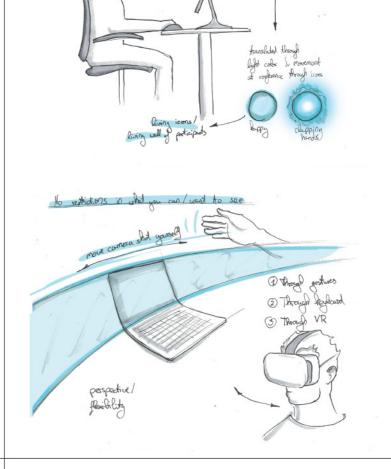


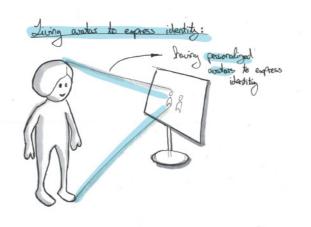


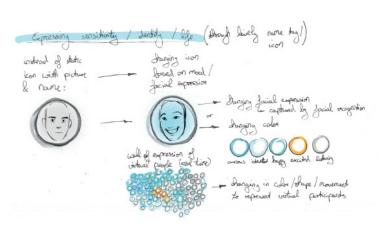


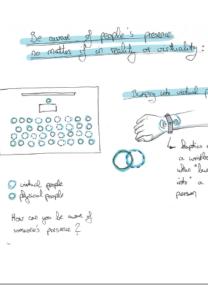


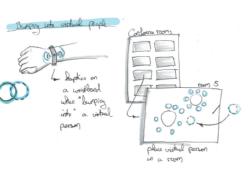


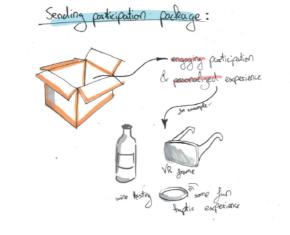


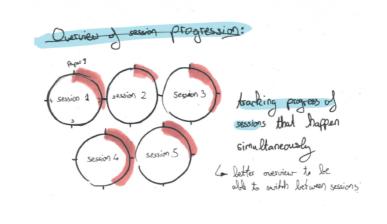


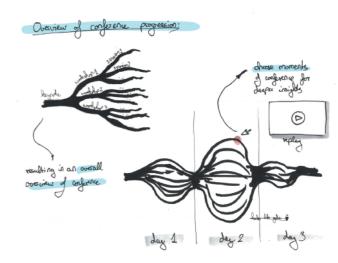


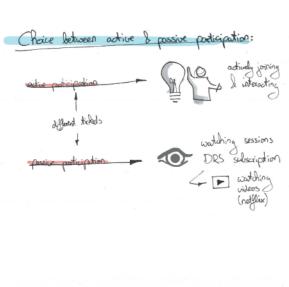


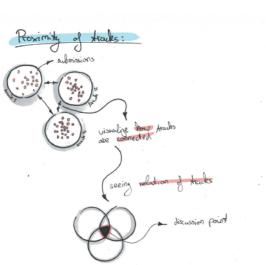


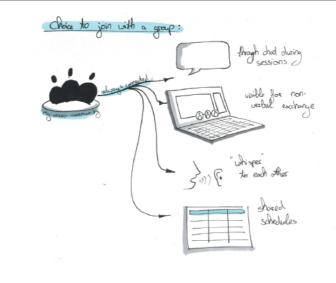


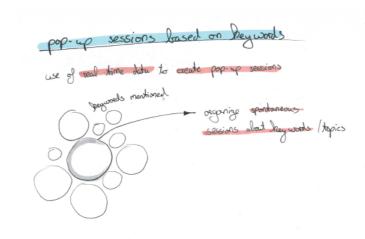


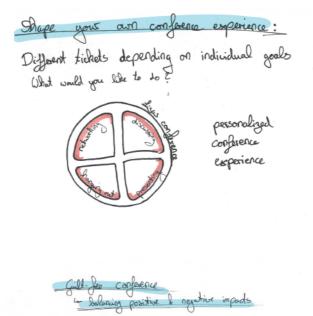


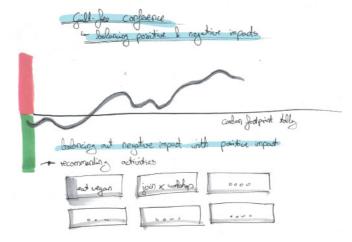


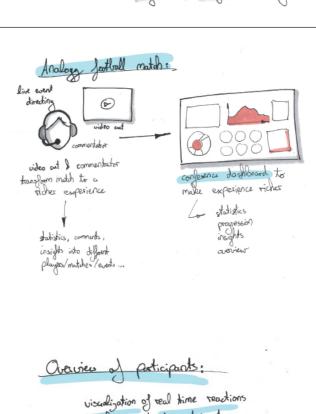






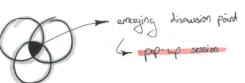


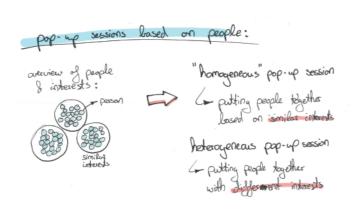


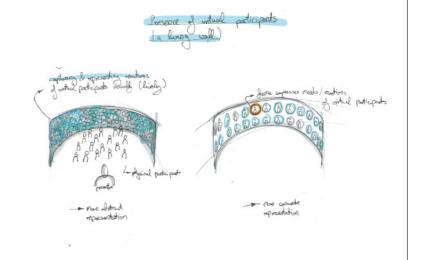


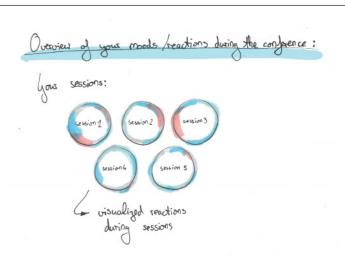
& amount of participants





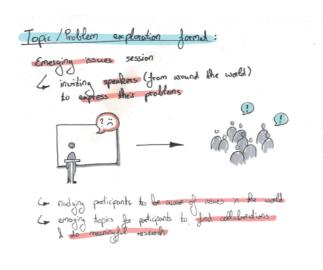


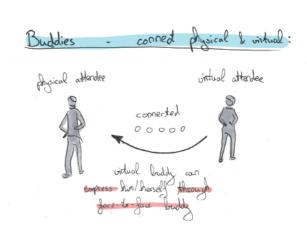


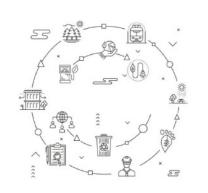




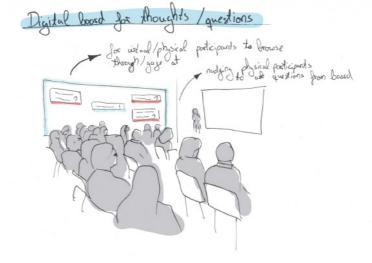


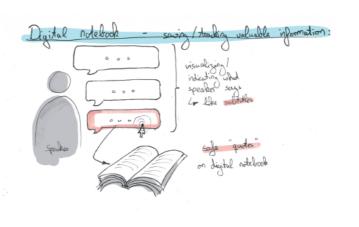


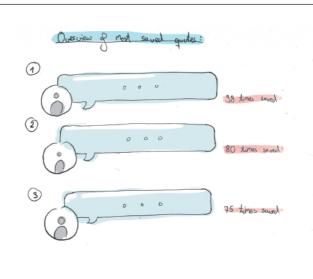


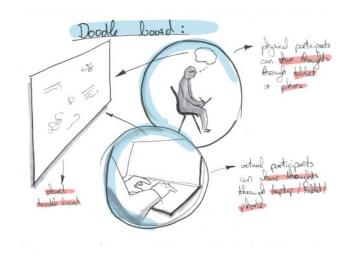


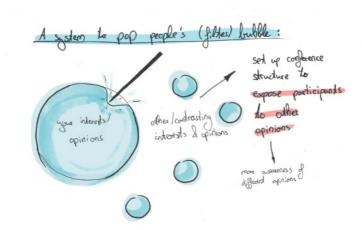
Ecosystem definition:
An ecosystem entails an ecological community consisting of different populations of organisms that live together in a particular habitat to create a balanced environment.

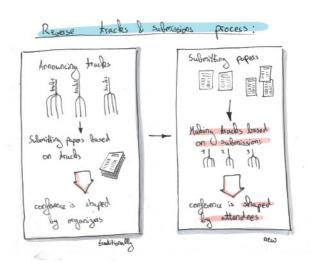


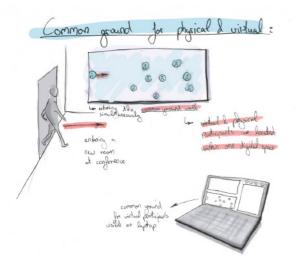


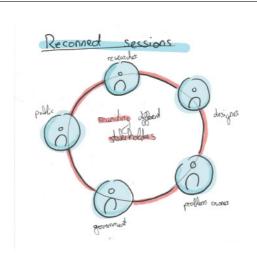


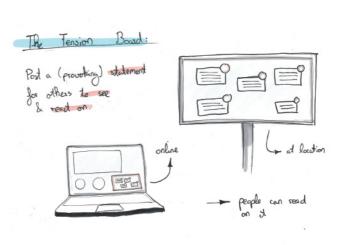












Appendix G - Final Concept

01 Organizational level

In order to be able to include more people and yet have individual contributions be considered, the way conferences are structured prior to the event needs rethinking.

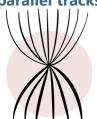
This conference concept proposes three interventions to do so.

Enable valid participation without paper submissions



As previously stated, currently many universities only pay the admission fee for their researchers if a research paper has been submitted and accepted at the conference. However, my research indicates that this kind of system contributes to researchers producing more lightweight research papers instead of fewer really profound ones ('university assembly line') as well as creating an exclusive rather than an inclusive environment. As academics want and should gain in significance and impact in future, conferences can play a big role in supporting the impact of academics in future. We need to enable a valid participation for people without having to submit a finished research paper. Therefore, this first step proposes a more flexible and vague range of submissions in which researchers can also submit, for example, work in progress or research proposals, to gain valuable feedback at the conference or find collaboration for the future research that is proposed. By providing a more vague range of submissions, academics are provided with more time, feedback from others and are included into the community, to produce valuable research, which can automatically help academics to gain in significance and create high quality research. This makes conference organizers address and react to underlying issues that lie in academia.

Reduce paper submissions and parallel tracks



Enable flexible participation through a hybrid setup



Having this flexible range of submission will automatically reduce the paper production and submissions as previously stated, which can lead to more attention to the research papers that are presented at conferences. I want to make it possible to draw more attention to individual contributions which can be made possible if we reduce the number paper submissions and parallel tracks. The reduced number of parallel sessions will bring more audience but also make it easier for people to choose. Again, also here, higher quality research and more attention is gained through lesser options and content.

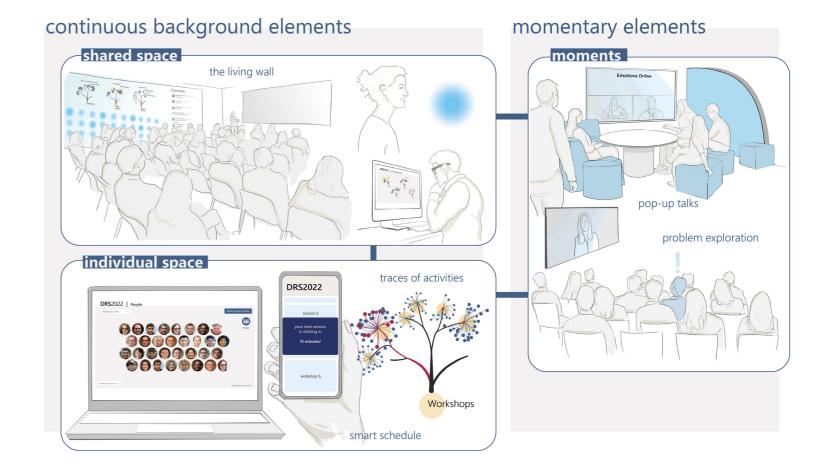
Lastly, we need a flexible participation to increase an inclusive environment and therefore also increase the quality of content. The research has stated that people are increasingly looking for flexible workspaces and lifestyles in future for better self-management within people's unique circumstances and schedules. This requires conferences to switch to a hybrid set-up. Besides it contributing to a much more sustainable solution, a hybrid format opens up many opportunities to include more people and provide a valuable space full of knowledge and conversations. Within this flexible participation I want to propose a set-up in which people are able to participate on-site, local-site or online

Besides, the type of participation can also be differentiated between active and passive. Because we want to draw more attention to the research created by people, providing an option to have access to conference material (such as videos) for a certain amount of time, we can achieve a wider range of audience. This includes people that may not find the time to actively participate but can also incorporate organizational or governmental institutions that want to learn from research.

02 Interaction level

Now that I have stated how a more flexible and considerate structure contribute to an inclusive and significant basis of academia and conferences, in the following I will discuss the interaction level at conferences and its design elements in more detail. The interaction level is the focal point of this project and is evaluated by people in more depth at a later stage.

Because the conference set-up is hybrid, we have new opportunities not only in terms of new sessions and formats but also in terms of new spaces independent from physical ones. That is why the interaction designs are divided into continuous background elements and momentary elements.



Interactive shared space

Continuous background elements are meant to be available and accessed at any time during the conference. They make up the technological space of the conference that ties together all interactions and communication is running continuously in the background. This space is divided into an interactive shared space and an interactive individual space. This space shall give participants an extra layer of participation through visual interactivity to gain overview, perspective and feel included into the event.

Living conference progression

The first design element is the living conference progression. The research has provided us with insights that we are looking for new possibilities to see the bigger picture in order to considerate and gain overview of activities at conferences with their people and content. Also, the research has provided us with insights, that an online environment can tend to lose touch of immersion and space. This living conference progression uses data visualization in order to provide people the guidance and proximity throughout the conference. It is a creative take on a conventional timeline and visualizes the progression of the conference in a lively way. Instead of having the list of sessions, you can gain an overall insight of activities through a visualized approach in which you see the conference progress and grow through people and content. This live(ly) and interactive space can be used to navigate through the conference experience and get an overall feel of what is happening at the conference and be stimulated by presented content that might have otherwise remain unseen. It visualizes the days, the sessions, the amount of people present and their interactions. For remote people it can be an easy tool to navigate through the conference and switch between certain sessions within the space. It also gives people the feeling that they actively contribute to the content creation at the conference as everybody takes part in this data visualization.

wall

Living While the living conference progression focusses on providing insight and overview of content and activities in a lively and emotional way, the living wall focusses on a more lively and emotional representation and interaction between participants. The research has shown that is it important to provide communication on an emotional basis in future especially with the rising online life. A hybrid set-up requires us to consider all participants, independent from online or face-to-face, and we need to rethink how we can incorporate everyone. The living wall offers an opportunity for online participants to be incorporated into the session as much as face-to-face participants with the help of technology. Participants can choose to have their video be visible and non-verbal feedback be represented through lights on a digital screen. The non-verbal feedback uses computer vision to translate any movement into moving lights. This does not only give a feel of how many people are joining the session in total but also acts as a reminder for people (especially presenters) that there are people participating behind screens. Additionally, it can engage and immerse online participants in a fun way as they can watch how their light is changing with particular movements.

Interactive individual space

Traces of people

In the interactive shared space creative and lively visualization activities and is used that is the same for all participants. But we should also make use of AI in future to create an individual space that differs among participants. The research has highlighted the opportunities of Al and personal experiences. Furthermore, it is important to acknowledge the uniqueness of people and make them feel individually considered to give them a chance to create a conference experience of their own. Another research finding expressed the importance of identity building for early career academics during a conference. People do different things, join different sessions, have different opinions and talk to different people. It can be very helpful for participants, especially in the beginning of their career, to be able to review and trace back their activities. The conference visualization is made up of people's input. Within this visualized conference space, individuals are able to make their own contributions and activities visible so that specific moments can be traced back and reviewed. Participants can also explore people in a more interactive way. Instead of being left with a list of participants, you can search through the people you met, talked to, or have things in common with.

schedule

Another way of making people feel individually considered and help them create their personal conference experience is a personal schedule. People can easily lose track of all the parallel sessions that are happening, and which ones are best to join based on their personal preference. With this schedule you could filter events, add sessions to your calendar, be notified or share it with others. This is also another way for people to maintain overview of conference activities and feel guided instead of overwhelmed.

Momentary elements

Momentary elements, opposed to the continuous background elements, are certain moments in time that are created with the help of hybrid technology. These are new formats of sessions which make use of the technological space to become more inclusive and insightful.

Pop-up talks

Pop-up talks make use of providing participants a space to continue on an inspiring thought they have during the conference with other people. Because we want to nourish more flexibility, here, participants can open up sessions with a chosen topic spontaneously at any time during the conference with anyone invited to join. Through this, any idea, inspiring moment or question that pops up in your head during the conference, can be discussed openly. Keeping the format open and flexible shall help participants to create intuitive conversations and yet have the possibilities to attract other interested people. By having dedicated physical and virtual spaces at the conference, these pop-up talks become visible to others, and anyone can be included to join independent from being a virtual or face-to-face participant. Having the pop-up talks presented in combination with the visualized overview of the conference, helps other participants to have more insight about other people's thoughts and concerns within the field of research in a stimulating and inspiring way.

Problem exploration

Lastly, another way to give participants the chance to be exposed to important issues in the world is the problem exploration session. Here, we want to invite problem owners, like design practitioners, from across the globe to tell us about their problems they have. This event is a chance for us to reconnect to social problems and together create a dialogue on how to tackle the problem. Through the hybrid setting we are able to have a wide reach of audience and problem owners. This problem exploration can then be continued by interested

individuals after the event through pop-up sessions or Miro boards that stay running in the background.

Appendix H - Concept evaluation planning

Concept Evaluation Plan (Set-up)

1 Aim of evaluation (Why?)	1	Aim	of e	valuat	ion (Why	٧?	
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Find out how the participants experienced the concept.

Find out if they can imagine a conference to be like this.

Find out what they did (not) experience it well.

Create a discussion about future conferences.

Compare current conferences to new concept.

Find out how they respond to my research and statement.

2 Description of method (How?)

Type of evaluation

Concept Optimization - Near the end of my design process, to judge different ideas of my concept to develop an optimal concept.

Approach overview

- 1. Get to know each other, present myself and my project
- 2. Have participants experience the concept: Play the presentation (6 minutes)
- 3. Semi-structured Interview / discussion with miro board for orientation / reference (20 - 35 minutes)

Prepared questions / flow:

Introduction round

- Ask about **experience with conferences** - How often have you been to conferences?

Watch presentation

(presents first research then design, sit back and watch, no need to memorize everything in detail)

Questions for detailed aspects of concept: https://miro.com/app/board/09J IvFJVe0=/

- What was the **most memorable** idea for you?
- How do you feel about the **individual ideas?** Why? (use PreMo on miro)

- What do you like/dislike about the concept? Why?
- What would you **change** about the concept?

Questions for the concept in general:

- How did you **experience** the concept overall? Is it appealing to you? Why?
- Can you **imagine** going to a **conference like this** in future? Why?
- Would the concept work better/worse compared to current conferences? Why?
- How does the concept help/hinder you in pursuing your activities at conferences?

Challenging prepared questions for participants -

Where are the weaknesses and problems?

Are there better metaphors and representations to work with?

Things that I am still **struggling to determine**: visualization of content and people. What type of data to collect to visualize. Involve them.

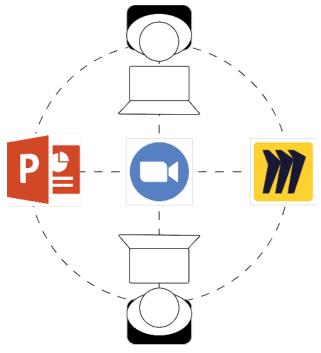
3 Concept Prototype (What?)

Visual representations and animations of concept ideas

I am using a set of slides that guide the participant through my research insights and resulting concept. A hybrid between video and presentation with voice-over and automatically moving on to the next slides. After the end of the presentation, the participant is able to scroll through the slides.

4 Description of test environment





Participant

Means of recording

- Zoom recording and transcription

5 Participants

Target group (inclusion criteria)

Who will I talk to? What are my inclusion criteria for the research activities?

What would produce different results if I talk to/include different people?

Conference attendees with different positions within the field may have different perceptions on how they experience a conference and how they would like to experience a (hybrid) conference in future.

Incorporate diversity in academic participants for insights from (possibly) different perspectives:

- interviews: 2 PhDers, 2 assistant professors, 2 senior professors, (1 practitioners? / 1 physically impaired attendee?)
 - diverse in gender, age, nationality
 - o that have had different positions in the conference as well (presenter, audience, workshop facilitator)
- workshop (1 workshop, preferably 2 workshops are conducted)
 - o diverse gender, age, nationality and position per workshop
 - o that have had different positions in the conference as well (presenter, audience, workshop facilitator)

List of participants (description)

Participant number	Apprx. Age / Gender	Position / Job	Country
P1	45	Professor	UK
P2	35	Researcher	Netherlands, US-american
P3	30	PhD candidate	Netherlands, Italian
P4	45	Professor	Netherlands, Chi- nese
P5	30	Researcher	Peru

6 Data analysis approach

- Open coding, axial coding, selective coding, clustering, final insights
- compare whether there are similar aspects mentioned across the participants
- 1 Open Coding
- 2 Categorization Axial Coding (= looking for categories)

7 Outcome Pilot Test

Use a miro board to the overview of concept to discuss together with the participant.

Shorten the video presentation a little more (research part).

Appendix I - Concept evaluation analysis

Analysis – Concept Evaluation

1 Open Coding

1 Interview P1

2 Interview P2

3 Interview P3

4 Interview P4

5 Interview P5

Positive experience feedback
suggestions for improvement/adjustment
Negative experience feedback
Other remarks

Nº	Time	Type *	Design part	Label (finding)	Quote
1.1	11:40				I really like the sort of inclusive conference, as a way to bring more people into it and remove the kind of formality, the stiffness of it, and these kind of regimented sessions
1.2	11:54		Conference pro- gression	Values to see the conference progressing	I really like the tree and that you can kind of see the progress of the conference
1.3	12:00		Conference progression	Unsure about what the visualization represents (people/ideas?).	I wasn't quite sure, though, what was on the tree. Was it people or was it ideas that were emerging, or?
1.4	13:05		Conference progression	Use data that represents ideas and content, instead of making popularity visible.	I would like something that more equitable in way. So that it's not just 'popular' sessions, becoming more popular sessions because they are popular but what is it about, the ideas, etc. So make it less about the popularity of the session and more about the ideas and how they come across.
1.5	15:05		Conference pro- gression	Values the metaphor of seeing the conference progress, as in a growing and blossoming tree.	I like the tree idea. It is sort of this metaphor for growth. So this idea of the conference growing and blossoming.
1.6	15:35		Conference progression	Represent emerging overlaps (circles) within sessions and content in visual instead of having individual trees of sessions.	There is also something like overlaps. I'm thinking about circles that perhaps kind of overlaps each other. Because I think at a conference there are overlaps between sessions and the content that emerges, whereas these one are quite kind of individual. They don't necessary connect to each other. So something a bit more layered perhaps.
1.7	16:00		Conference progression	Use of visualization at conference is a great way to feed participants into the event.	The concept of having a visualization is a really great idea. Somehow getting a way for people to feed into that.
1.8	16:05		Conference progression	Would like to incorporate subjective measures in visual: how inspiring is a session, what new connections were made etc.	So I guess they are kind of objective measures that you use, like the number of people in a session, or the number of questions that you've asked, you know this way of measuring engagement, but you know, how do you access the most subjective things which might be visualized in there? Something like how inspiring the session is or new connections that have been made between people in the session.
1.9	17:24		Traces of activi- ties/people	A shared visualization is a good way to incorporate people from home.	I think that is probably a good way to bring people at home together with people that are there. Be- cause it is a shared visualization, isn't it?

1.10	17:55	Traces of activi- ties/people		I quite like the idea of having the faces there and that kind of things.
1.11	17:57	Traces of activities/people	Not everybody wants to be seen at conferences.	But I think some people like to be a bit invisible. Often at online conferences, they deliberately keep their cameras off. They actually don't want to be so visible. And I think the same in a physical conference, some people just don't want to be kind of there. They want to be in the background. I think it is sort of catering to that. People who are maybe kind of introvert want to be there to listen but not everybody wants to be so visible. But there could be many reasons for that. So be mindful, that not everybody would be as excited to have their profile. When I join a conference there is always an option to upload a photo and have a profile and most of the times I don't bother. I don't broadcast the fact that I am there.
1.12	19:05	Traces of activi- ties/people	Use different levels of options for visibility.	So having it at different levels of options. Or allow people to put an avatar or something that represents them in a way.
1.13	19:35	Traces of activi- ties/people	It is useful to find people you met.	It would be really useful if I am able to search through the people and find the people who you were in the room with or met. When we used to go to conferences we used to get a delegate list. So you get a piece of paper that have the names of all the people who were at the conference. And that was always the first thing that people looked at because they want to know who else is there. Now you cannot do that because you have GDPR, data protection. You don't know who else is there. Unless people choose to, I guess, interact with something that's like a slack.
1.14	20:25	Traces of activi-	It is useful to know who is planning to	And also to know which sessions other people are
		ties/people	go to which session.	planning on going.
1.15	20:40	Traces of activi- ties/people	It can be a conversation starter when you see that another person attended the same sessions (ice breaker).	You could imagine as a sort of conversation starting where you find someone and you can see that you have been in two or three the same sessions. And you can see the next session they're gonna go to, you're gonna go to, so you can just kind of message them: Hey, it looks like we're interested in the same thing, do you want to grab a coffee? Physically or virtually as well.
1.16	21:20	Personal sched- ule	Early in the career you go with your crowds, but later it is interesting to have sessions suggested that are different to your field.	At conferences you sort of go with your crowds, you tend to go to the things that relate to your own research area, especially when you are a PhD student or young researcher. I think it becomes more interesting later to kind of go to sessions which you know nothing about because you want to hear something new. It's the sessions in your own area you kind of know, you know the field. And maybe there is a way to have a session or something that suggests a session to you that might be completely different to your field.
1.17	22:40	Personal sched- ule	Opportunities to recommend sessions similar to or opposite to your interest.	It could either recommend sessions you've been to already, with AI behind it, or it could recommend something completely different.
1.18	23:00	Personal sched- ule	Essential to have an app as a schedule, paper based is very wasteful.	But I think having some kind of app to plan your sessions is essential. Everything used to be paper based and really wasteful. So having it digital also makes sense.
1.19	23:36	Individual space	Individual space takes some of the hard work away and makes the conference experience more relaxing.	I just think it's a very contempted face, as in really being relaxed. It takes some of the hard work away from you. To find a reason to go and talk to someone or to have your schedule planned if it had some intelligent suggestions.

^{*}Type of insight

1.20	25:00	Pop-up talks	Spontaneous get togethers to discuss certain topics and have it open for people to join is nice.	Is that something that emerges during the conference? Kind of like a group of people who have perhaps met and get together and say: well we have this question, should we just start a session and explore it further.
				I think that would be good and I think that's what happens at conferences anyways already, with people getting together and having a chat about it.
				But if it's a way, perhaps, making that open to other people to join. I think that would be good.
1.21	25:10	Pop-up talks	Not all conferences have the possibilities to facilitate a space like this (breakout area with chairs and technology).	There is a sort of physical aspect to that. You got this little kind of break-out area, with chairs and a table, and I was thinking, not all conference venues have those kind of facilities. And if you didn't have that sort of facilities for that space, how could you still do it?
1.22	25:40	Pop-up talks		I think it is the way you visualized it. It needs peo- ple to kind of think that you go to a little space to have this kind of conversation. And how could this conversation happen in a hybrid way, with people online and physically there?
1.23	26:09	Problem explo- ration	It should be more like a collaborative workshop experience instead of people sitting in rows.	Is this something that would be hosted by some-body? I guess with the problem exploration, for me that is more of a workshop experience. I wouldn't see it happening where people are in rows, full facing one direction. I think it is more kind of a collaborative round, kind of a table or a miro board or something like that. Might kind of represent it. Basically, this just looks like a talk, with someone at the front and people watching. Exploration is a more collective thing.
				It is a concept for a session.
1.24	28:20	Individual space	(most valued element)	The second part is really nice as a combination. Being able to see who is there, having some kind of scheduling system, having these kind of traces of activities, I really like.
1.25	29:00	Momentary elements	Would like the momentary elements to be less dependent on space.	If the last part could be less depending on the physical space, that would be great. The way they are visualized right now, they kind of lead you to expect it is a certain type of interaction. So if that could be less dependent on the physical space
2.1	11:30	Pop-up talks	Likes pop-up talks because there is always a need for spontaneous discussion. It does not require you to know people to discuss.	I really like the pop-up talks. I feel those because there's always this like a need, especially in a hybrid setting like spontaneous discussion right like you heard something exciting at a presentation you're like oh man, I want to explore that more. And then, but you can kind of do that in a maybe personal setting with people but it requires you to know people and then tell them: hey I want to talk about it more right, so if.
2.2	12:10	Pop-up talks	It is a nice way to communicate (let other people know) about the session.	Whereas with these there's a way to communicate these pop-up talks to everybody at once right, that would be really cool and they can just join you in like an online or hybrid space, I thought that was actually really cool.
2.3	12:40	Pop-up talks	Allows you to explore a topic. Often you cannot talk to the presenter afterwards: line too long, can't find presenter, etc.	when I would be in conferences, I would be like man I kind of want to know a little bit more about this subject, there are these you know opportunities after each presentation between like sessions, you can go and talk to the author, but a lot of times there's a huge line. And you can't talk to the presenter in like then you're like a walk i'll talk to them at lunch, but then you can't find them or you know they're preoccupied so yeah I thought that was like actually a pretty cool idea.

2.4	13:10	Pop-up talks	Requires technology to make online people feel really included.	you'd really have to ensure if it's like a hybrid thing that like this is your whole point right trying to make the online Community feel included in the in person discussions. So really ensuring that if you're going to have a hybrid pop up discussion there's technology setup so that the online audience can also participate in feel like they're there.
2.5	13:31	Organizational structure	A hybrid set-up could lead to a social divide between wealthy and poor countries with people from wealthier nations joining the conference face-to-face. How can we deal with this?	And then I was also thinking about this inclusiveness that you mentioned at the beginning in the introduction, like. I was thinking, from an economic perspective, like yeah as more and more of these conferences become hybrid I can see like wealthy nations who have the money to fly their employees to places will probably end up in person. And the online Community might actually tend towards more the developing countries you're going to have this interesting social rift right. And I think I don't see it yet in the RSD but I kind of do like a lot of like the developing nations they're buying all the online tickets. And then the European nations are buying all the in person tickets there's COVID right now, so I don't know if this is a case, but like tickets are also expensive and online tickets tend to be cheaper right. So how do we like. that's an interesting thing to consider. You know this might be beyond your project, but I just I did think about.
2.6	14:39	Organizational structure	Social divide creates even more isolation (exclusion). Online the language barriers can be more challenging.	if it becomes this interesting social divide, you're going to get even more isolation right because it's going to be people from developing countries and depending on, you know, leading language let's say it's English or something like those who don't have a really good grasp of English they're going to be less inclined to even participate online because it's so removed, so I just thought about. yeah it's something to consider.
2.7	15:07	Organizational structure	Values the idea of decreasing parallel tracks because it can be very overwhelming.	I did notice cutting down parallel sessions and papers I'm a really big fan of that because it's so overwhelming
2.8	15:17	Organizational structure	Reviewers tend to see the more famous and outstanding works. How do you support and include new up and coming researchers with decrease of parallel tracks?	but I was wondering like if we do cut down on paper sessions, I think the quality of each presentation will increase, but then, how do you prevent new up and coming researchers to be included in these paper sessions, because I can see reviewers tending towards the more famous outstanding works and like with large tracks you kind of have a better chance of getting into a track if you're like a you know starting your career so like I could see that being like the negative aspect of that.
2.9	17:49	Organizational structure	Values the idea of decreasing paper presentations and create more time and space for dialogues/discussion/etc.	I think I get what you're saying so yeah I think I like that. So the RSD conference that i'm helping to organize it's a design conference and it, it seems there's a lot of these dialogues that called dialogues and they're not they're not all papers, which is interesting. there's a ton of workshops and then a ton of a lot of dialogue, so that I think there's These group discussions. And then there's these practice cases where practitioners will present work from real life and then they'll talk about it, I noticed in both as far as I know, like in more scientific work conferences like it's all talks right it's all like paper presentations. See if we could take on a little bit more of these. I guess design conference approaches in the more hard science conferences, I think that's like a really good idea, because this this.

			:	:
2.10	19:15	Organizational structure	Likes to make submissions more vague and unfinished because it contributes to a two-way discussion instead of a row of presentation and listening.	yeah that's actually a very good point you bring up because i'm so the RSD there's going to be the short paper tracks where it's I think what you're talking about where people present works in progress. But that is something I would have liked, when I was like getting my PhD. is conferences, where you could present more works in progress. Right and, like the way conferences are set up i'm sure you know, like the abstract submission is like six months before the Conference so like you write this vague abstract because you don't quite know what the results are going to be. And things can change drastically, by the time the conference happens so you really have to have. A semi finished product like you said, and so what you're communicating to the audience isn't necessarily like hot off the press information right it's It is like you said pretty much finished, which is unfortunate because I think the point in science communication should be like here's some really interesting insights that I just came up with what do you guys think. And it should be a more two way conversation. Instead of someone standing up in a podium and like 30 minutes.
2.11	21:50	Individual space	The individual space enables the participant to have a more holistic view on the conference, because it helps you to navigate through a conference (guidance).	I like the individual space like having this schedule like you were like people get you know, lost at conferences like because there's so many tracks and having maybe like an APP like this, or a way to visualize the conference more holistically like I did I actually did like that I don't see any downsides because it's just so frustrating as a conference go or in some of these really big conferences to navigate the conference. And there's not a lot of guidance. yeah not a lot of guidance from the Conference of like: here's how you can navigate. As far as I know, like it's very clear, so I really like this visual that you had like of guiding the user in an easy way.
2.12	23:04	Traces of people	Some people do not like their faces visible, prefer privacy.	but then with the faces, I think that would be cool one Downside like maybe some people don't like their faces on there so it's like a privacy thing. But the point of a conference really is networking right so yeah I don't think People are not gonna have that much of a problem.
2.13	23:35	Traces of people	At a physical conference a name tag is only visible once you approached a person, here it is all out there.	I think, with the Conference, I guess, the people see your face like you have your tag with your name on it, but you know it's far away, so people don't quite know who you are. I think maybe online all of your Information is on there so someone can click and figure out what university email blah blah blah, maybe that's what they're talking about.
2.14	24:11	Traces of people	People might not like the ease by which strangers can contact you.	you can actually message them while in a real life situation you actually have to walk up to the person and say something yeah. there's some people might not like the ease by which strangers can contact you.
2.15	24:30	Traces of people	It helps introverts to approach people. It is nice to know beforehand who is going to which session.	I actually like this, because if you're an introvert you know, like you don't have to make the effort of walking up to somebody you can actually kind of quietly look at other people's names in your own time and then say oh this person looks interesting I think I'll go try and find them. Too many times an in person conference like you don't really have I mean some conferences have lists of like who's attending but like. This is kind of nice because then you can actually know beforehand, who might be there.
2.16	25:15	Traces of people	Likes to be able to see who you met, because often you don't remember or don't have business cards.	That will be awesome actually I always forget to like who was that and I don't remember their name and sometimes you don't have business cards with you right so. Then, so that that is actually a really nice feature. Keeping record and like who you met. Up later.

2.17	26:00	Traces of people	Creates a more inclusive and friendly space for new/shy people to engage.	enabling shy or people or like New people right or younger people to be able to engage more with sort of the wiser, you know more well spoken people like. How do you create that enabling environment, I think this is sort of I think I feel like because you mentioned inclusive. All right, alright um yeah, so I think that is one thing, like, I think this format would be actually helpful for creating a more friendly space. For people that might be like more shy and unable to do things in an in person environment.
2.18	27:00	Traces of people	A famous person might not like / gets overwhelmed with requests because it is so easy to contact them. How do you control this?	or the downside could be like a famous person gets overwhelmed because it's so easy to contact them so that might be a downside with your thing, that you get overwhelmed with like requests to meet you're like: oh my God I can't do this. So how do you control that.
2.19	28:24			Like that I think one thing to think that again, what is the goal, the person like it depends on like what they want, out of the conference.
2.20	28:34	Conference progression	It gives you an holistic view on what is going on (holistic timeline).	But I think this is good, it gives you a holistic view right of like yeah and like a timeline view like what's going on.
2.21	28:57	Conference progression	Likes it as an out-of-the-box idea, be- cause conferences can be quite stan- dard.	I would be open to a more different way to look at a conference than a list. I like these sort of what's it called out of the box thinking I think conferences just fall into a very standard format of visualizing things
2.22	29:10	Conference progression	It would make the navigation of a conference much easier, in contrast to a list of sessions.	I don't think it's the best format, but everyone just does it because they're too lazy to change the way things look so there's any way to make The navigation of a conference easier for the user, I think that would be so important.
2.23	30:00	Conference progression	You might see things that you would have otherwise missed, compared to scrolling through a list of events.	because also one positive thing about this is, you might see things that you would have otherwise missed In the list format. Right so yeah i'm so tired of scrolling through my screen, but if I have a more you know holistic view of what's happening, I could maybe see something that I would you know, in the past, and like not really paid attention to.
2.24	29:20	Conference progression	Likes the representation as trees.	I like the tree example that you're talking about the image with the tree right
2.25	29:30			I think I would have to probably like see a little bit more detailed.
2.26	30:47	Conference progression	Could imagine the conference as a network diagram, instead of trees.	Network diagram would be kind of cool.
2.27	30:55	Conference progression	Can imagine an interactive diagram to explore conference space. With suggestions of similar or out-of-the-box talks/topics.	Something interactive like if you clicked on something it would expand to show you maybe you know get out like an Ai thing where it would say if you're interested in this, you may also be interested in this talk. yeah right where you've been like you may be interested in this talk, even though you have no idea what it is like here's some out of the box topis that you might want to expand your knowledge on right.
2.28	31:16	Conference progression	It provides opportunities to explore topics that you would have never explored otherwise. Find unexpectedly interesting topics/sessions through visualized conference space.	It just reminds me of like the clothing rental things. there's an online shopper and they'll give you like clothes that you might not usually where do you know about. My friends subscribe to these and they're like oh yeah like I would never think this would look good on me, but like I tried it on it was awesome. Right so like that, for a conference like here's some topics that you might not necessarily think you're interested in but might be of interest to you.

2.29	31:55		:kground ments	It encourages people to explore topics that might be out of their scope.	But I would totally be open to that. In a lot of times at my work when I would go to conferences our Boss would be like: try to pick at least one talk that's way out of your comfort zone. Because you'll be surprised yeah so like enabling people to do that, like exploring topics that might not you know might be out of their scope, but that they should go to.
2.30	33:15				I think that's such a good idea, and I know that some like the conferences that I would participate in had that a little bit like policymakers would come and a scientist would come in, they would sit at a table and have a conversation, but I think we definitely need to have a lot more of those.
2.31	33:40	Pro ratio	blem explo- on	It helps scientists to recognize what kind of impact their research can have. Validating / eye-opening for researchers in realizing where their expertise can make a difference.	That, I think it also helps the scientist recognize what kind of impact their research is having right and not die so important, so having these problem explorations I think also. From a validation point for researchers is it could be really also eye opening for them right like oh here's where my expertise is actually making a difference, or could make a difference.
2.32	34:09	Pro rati	blem explo- on	Finds it important to create more conversation and connect researchers with people who take that knowledge (practitioners).	because too many conferences it's just like here's what I did do you have any comments and then it ends there right. yeah like you don't have conversations with real life, people who actually take that Knowledge and use it To solve like a true problem, so I do find these super important and we need to have more of that
2.33	34:30	Pro rati	blem explo- on	It might help scientists to be more brave about giving input.	and we also need to have scientists be more brave about giving input, because I feel. Especially in the field i'm from people like well we're still looking at it, you know, and we still don't quite know what's going on, and no one sticks their neck out and say like you know well, we know this and it might have strong implications for this problem, like too few times scientists do that. Right researchers in general, were too like hesitant to give advice, and I think this is actually it might provide some practice.
2.34	35:10	Pro rati	blem explo- on	Consider to make a safe space in which people want to share thoughts: keeping it hypothetical for researchers might help.	so one thing is maybe create making sure that it's a safe space. For scientists to kind of put out their thoughts. You know, say, like this isn't necessarily going to result in real life change, maybe, so we could talk about a lot of hypothetical things and that would kind of help scientists to say things that they might not say like quote real life, you know.
2.35	35:45	Pro rati	blem explo- on	Making the format more casual/intimate (café style) might contribute to a safe space (making it less intimidating).	Some sort of like in an informal like a CAFE style you know, like really make it so it doesn't seem like a formal workshop, but like kind of a more conversation style thing. Some of these are like it's a panel discussion where you have like a long table with scary looking people sitting on the Stage right and The audience is watching and as a scientist sitting at that table, you're just like oh God like you know, and then you have to look over at this person that's like sitting next to you so rather than that, like having kind of similar to maybe the pop up talks was like a smaller setting. You know more intimate like less intimidating. so like having it more casual. So then, I feel that helps in Getting the creative juices flowing to right.
					It could be a workshop session too, I don't know if there's a more optimal format but enabling the researcher to speak up and say their opinion.
2.36	37:14	Inte	eraction level	More pragmatic ('old folks') might have problems with the different design.	maybe the more like set in their ways people being hesitant. I think there's going to be like. Old folks are gonna be like Oh, this is too different for me. I mean this is just me speculating.
2.37	38:00		ckground ments	The visualization helps to create a good overview of the conference to which people will probably respond positively.	People might be actually very responsive, especially if it's the visual where it's helpful to get a really good overview of the conference I think people will be very positively responsive to that.

2.38	38:19	Background elements	The continuous background elements help to understand what is happening at the conference and making choices in where to go.	And I think you know, the main, I feel, maybe this is just me, but my main complaint about conferences is like oh my God there's so many there's so many papers, you know there's so many things that are happening at the same time that I want to like go to like and I don't know what's happening when you're always in a rush right you look at the schedule before and you're just like Oh, which ones Do I need to like go to, so I think the way you're doing it would be helpful
2.39	38:45	Interaction level	It helps in interacting/networking more effectively. Sometimes it can be hard to do so in the actual location, when it is big.	and then also like yeah I don't feel like when I go I really interact as much as I can, like people. yeah and I feel I kind of come away like I don't feel I did my networking and I was able to do it. Partly like sometimes like it's a really big conference and so there's just so many people in the actual location is massive so it's hard to find people.
2.40	39:18			Another one is like as a PhD student I was really shy right and I just was scared to like contact people.
2.41	39:25		It helps overcome intimidating situations (e.g. going to a mic to ask a question)	or the way the question and answer sessions are set up like you have to stand up and like walk to a MIC right which is really intimidating
2.42	39:35			or you wanted to talk to an author like after the talk, but there's like 10 people in line. And you have to run off to your next session so there's a lot. One being able to find people Two having the time between sessions to talk to them Three getting the courage to speak to those people. And then, like knowing even who's there. Right like you're right like it's harder in person. I like the sort of visual of people who are there, I think it would be beneficial.
3.1	14:53	Living wall	It could lead to everyone turning off their camera, so that the presenter sees that everyone minds their own business.	And then on the bottom those blue dots it's basically the faces of the people, so if they're attentive it's on otherwise it is off so I guess that the presenter sees if everyone is just doing their own business in this session, instead of listening. Is that the idea?
3.2	17:27	Conference progression.	Looks cool.	I think it looks cool.
3.3	17:30	Conference progression	Does not need a visual. Paper booklet works fine.	i'm just asking because i'm just wondering, I mean, normally when I go to a conference I have my paper thing that they gave me in the beginning, and then the program is there and then I choose where to go and now yeah, the idea is to make it a lot more visual but besides making it more visual making it bigger having it on a wall. And, and then having these dots that show that there is also people at home, like i'm wondering what is the social added value? for me like I think the concept is cool it looks cool but besides looking cool.
3.4	18:00	Living wall	Does not care about people at home and would rather interact with people in physical space.	i'm not sure, personally I would Care so much if i'm at the conference that there are people behind screens also watching.
				Because i'm there i'm engaging with the people there, I mean i'm in the zone hopefully.
3.5	18:39	Living wall	It is more important to make people at home feel more engaged.	And then I think it's probably more important making the people feel at home engaged. but letting the people that are there, knowing people at home engaged, I wonder if they would care, like in my case, if I don't. But maybe other people would.
3.6	21:19	Conference pro- gression	Does not give much added value than what you already have in the paper booklet.	i'm very pragmatic but, but I think I think it's nice it looks nice it looks cool I also assume that it's very expensive. And, to be honest, I don't think that this would give me so much added value compared to the paper booklet that they already received

3.7	21.34		Conference pro- gression	Likes to see real time how many people are present in other sessions, because it might lead him to go to a certain session. (but I don't want that so for me it is a con)	apart from the fact of knowing real time how many people are in the other rooms that's for sure Interesting like if I know that I'm in a session and at the conference, there is 100 people and I'm in a room there is five sessions and i'm in a room with five people. And in another room there is 10 people, and then there is 80 people in the other session. Then, maybe you know I want to go there.
3.8	22:00	lı	ndividual space	Often you go to a conference to meet specific people (that you already have in mind), knowing where the different people are helps you to do so more effectively.	Especially if I know who is there, then I can actually because you know at the conference is many times. People go there to meet specific academics, you know they have their research and they have ideas on who they would like to work with so going at a conference it's an occasion to actually meet in person, someone that you've been just reading his papers being kilometers apart.
					So, I mean often you know when I go to a Conference have a precise idea on who do I want to meet. Who do I want to talk to, and why because possibly I want to start the collaboration, so if this wall or the individual space, I think the individual space does that, to an extent.
					So I see value there. if you tell me where the different people are with the names, that's interesting because then I know where I need to go to meet who I want to meet.
3.9	22:35	lı	ndividual space	Privacy concerns with having people be visible.	then maybe there are also concerns in terms of privacy
3.10	23:13		Conference pro- gression	It might be interesting if it shows real/time what is being discussed in other rooms.	I mean it depends also what level of detail this wall goes into I mean if this wall really shows that there is five rooms and in a room they're talking about something it tells me exactly what they're talking about. I mean, I already know that from the paper catalog. So, if this wall then gives me in real time information on what exactly is being discussed in another in another room. Then, maybe, maybe it's interesting.
3.11	23:40		Conference pro- gression	Shouldn't be in the presentation room because you want to focus on the presentation.	perhaps not in a presentation room, because if i'm in a presentation room i'm listening to the person that is talking and I think you know, on a cognitive level i'm not able to actually look at the living wall and listen to the presentation and at the same time.
3.12	23:55		Conference pro- gression	Imagines it to be expensive (viability might be low).	and also I mean I don't know to what extent you also want to look into the feasibility of this but I assume that this is expensive so i've seen this in multiple rooms can be really costly.
3.13	24:00		Conference pro- gression	It could be useful to have it at the entrance of the conference (e.g. when you're late it might help you to decide in which room to go).	But maybe you know if you put it at the entrance. But if you have this, for instance at the entrance of the venue and in real time as people present, you have the content being displayed and pop up. On the living wall then, I arrived, maybe i'm late, I don't know which session, I want to go to, and then I have a I have a live show on what is being discussed in different rooms, that this may be helped me to go in a room instead of in another room so. yeah then it's interesting.
3.14	26:07		Conference pro- gression	Knowing who is where and how to find them is useful because the reason you go to conferences is to meet people and start a conversation.	I think I mean knowing who is there and how to find them definitely it's interesting for me. yeah because I mean the reason why people go to conferences in the end is to meet people in person to start conver- sations and hopefully to start working together or debating ideaS
3.15	28:23		Conference pro- gression	Is fine with the paper schedule and circle the places he wants to go.	I think the calendar, with the next session when that is starting probably not. I would probably you know be okay already with the paper schedule and then I would just circle, with a pencil the places that I want to go to that that worked well for me.
3.16	29:18		races of activ- ties	Does not have time to look back at what he did.	No, I don't think I would personally have the time then to look back on what I did after.

3.17	29:42	Traces of activ-	Wouldn't rewatch sessions, because	before I go to a conference I generally also whenev-
		ities	of preparation before the conference (what content to watch, who to talk to,). Wouldn't look back at traces or rewatch sessions because he would prefer to enjoy free time in evenings.	er I do I do some research so. I know Already what content is going to be discussed, where it's going to be and who going to talk about that so then i'm just gonna go there and I will try to be present, sometimes you have to balance sessions, and you can't attend both. And so something like this would allow me to rewatch another presentation. But, to be honest, I mean if I think about the concrete situation when i've been in conferences, you know. it's just like it's also tiring so so it's already a tight schedule you're talking to a lot of people, so I wouldn't you know, then later in the evening find some time to just if i'm in my hotel or somewhere to actually rewatch the presentation for the Conference, I would just you know meet with people in a bar in a restaurant or enjoy the City that I mean.
3.18	31:53	Personal plan- ning	Would prefer to do research in what he would be interested in instead of having sessions suggested.	For me, the most of the value it's actually you know meeting people and connecting so it needs to be physical, but then, if I attend online I would try to also make some research in advance on exactly what is it that i'm interested in and then just watch that.
3.19	32:45	Pop-up sessions	Cool idea. Wonders how it would be facilitated.	I think that's cool. How would you facilitate that exactly how does the interaction starts and then?
3.20	33:37	Pop-up sessions	It would help shy people, for example, to get together and talk, because it is a more structured and inviting way to facilitate spontaneous discussions. I mean you know some sort of I would compare this to an icebreaker you know. When when, for instance, when I started the master's program at the TU Delft with this Introduction program with all the ice breakers, the activities you pass the ball to each other to start the conversation, you know, some people think. It's lame but to be honest, I don't think it's lame because I think it's a structured way to really get people connected and for some people it's not so easy so, so I think. In this case I would compare this to an icebreaker in a context where it's really easy for people to start to start the conversation, so I think it's a nice idea yeah.	I think that is cool and I think, to some extent this already happens at lunch, for example, or in the breaks, you know you see people getting together and just talking about stuff but if you find a way to make it a bit more structured and facilitating that because sometimes people are a bit shy. You know, so this would probably you know help.
3.21	33:50	Pop-up sessions	The idea as a basis is cool, now, it needs to be designed right in the details (what do different people need?).	I think you know for this to work well, then it's all about the details so now you design this user experience, then I think if it's designed properly really taking into account what different people would need then I think it can be really cool.
3.22	34:20	Pop-up sessions	Personally never has problems approaching and talking to people.	Personally, I tend to talk to people over lunch or coffee and and then yeah and actually I never had the you know problems approaching and talking to people at conferences.
3.23	34:43	Pop-up sessions	It works as an ice breaker for people to discuss stuff.	
3.24	36:24	Pop-up sessions	This design gives most people an opportunity to talk with people and discuss topics.	for some people it's really easy to get this thing but for more shy people then you know it's difficult to do. By creating this you actually give most people an opportunity to do it. And I think that is cool.
3.25	38:13	Problem explo- ration	It is a nice way to address the problem academics becoming too detached from reality.	The problems of the world if it goes beyond businesses, you know it's the raw materials that academics need to use to create the theories and then the publications, you know so, so I think it's really cool to have this let's say. Real world inputs in a conference, otherwise you know the academic discussion becomes really vacuum style because it gets too detached from reality, which is a problem that in academia exists. So I, and I think it's Nice that you're creating an intervention to to address this.

3.26	38:42	Pro rati	oblem explo- ion	It already happens to some extend at conferences.	I also think that this is already up into some extent, maybe it's not called problem exploration, but I think many conferences are aware that they need to incorporate some elements of course it also depends from the conference. From the type of conference. Some conferences are more practitioner oriented or more mixed some more focused on hardcore theory and that's also a choice on goes to the conference on what this person is interested in
3.27	42:09	Pro rati	blem explo- ion	It is important to bridge the gap be- tween what happens in the real world and what academics are doing, to avoid the risk of creating (irrelevant) research that practitioners don't use.	So then then it's really important to have this cross contamination with the real world and definitely there is a gap between what happens in the real world and what the academics are doing. And so it's important to bridge this gap, because then then academics get into the risk of creating a research that practitioners think that it's not relevant. And then, it just become yeah waste of time invested in the right, I mean if in the end practitioners don't care it's it's kind of a problem so so yeah.
4.1	17:00		nference pro- ssion	Does not want to have the feeling as if she is trying to attend five sessions simultaneously.	At any moment of time, we can only be focusing on one thing right. So our time is Limited. So if I if I try to attend to five sessions. Would I be able to understand what is the key point of each of the session?
				Wants to focus on session she is in.	
4.2	18:00		nference pro- ssion	Real life response to research work is valuable interaction.	One of the important thing of conferences, is to bring people that are interested in a particular problem together. So by being there my focus is here, I try to understand exactly what they are talking about and I actually one of the key elements of conferences, is that we can always read people's paper. We can also yeah go to the YouTube and the video channel to hear this person even talks about their research.
					But we can't really get engaged in a conversation with them, so I cannot ask questions, I can also not see a real life response, not only from me, but also from other people, so it is this interaction that I think is really valuable.
4.3	18:30		nference pro- ssion	Wants to have an in-depth understanding of one particular topics, instead of knowing what is happening at the conference overall. Attention is limited.	and in order to do that I don't think I can be in five different places, so I can be seeing the entire conference, but I don't get a in depth understanding of a particular topic. Yes, yeah okay. Can you think about that maybe the objective is not to be everywhere that our attention at any time is limited? So you need to make a choice, you need to yeah I could be in three different places, but I am not actually in any one of them.
4.4	19:40		nference pro- ssion	Participants are not people with general knowledge but they are interested in particular topics (research focus), which is why they often prepare in advance where to go, which sessions to attend.	most of the time these conferences, is that they have an APP, for example, yeah that they have all these programs, and I can review them. And maybe at a certain time period I already selected one or two because I can just be in one place, or maybe I have two different places, two different sections that i'm interested in, then I could already put some notes for me about what choices, do I have for my next period of time, so my experience is never that you, you make that decision, right at the moment to see which session, you are going to go to because you're not talking about people with a general interest. I'm assuming that you are talking about the DRS Conference, it will be a research conference we all have our own research focus area therefore it's not that all sections are interesting to me. yeah there are certainly certain sections that I am more interested to go.
4.5	20:55		nference pro- ssion	Wants to meet the few key authors from her research area, and not attend session with most people. (which was not my goal anyways)	And we are there to interact with people so i'm also not there to go to the session with the most people, for example, i'm there, for example, there are a few key authors in my area, for example, and I want to have an opportunity to check with them, so I will be interested in in the sessions, so that I could yeah. Have a have an opportunity for some kind of discussion.

4.6	21:37	Conference pro- gression	Will only be interested in a few sessions and a few key authors to further her research.	So my general opinion is we are there to further our research to get a bit more in the action. There are some peers of my research area, and I want to see what they are working on now, so there will be only a few sessions that I will be interesting.
4.7	22:35	Conference pro- gression	Conferences often try to synchronize sessions so that switching between sessions is easier.	You also should know that also the conferences, sometimes they try to synchronize the talks, so there are several different sessions and they all try to synchronize the style and the ending of the talks because I might not be interested in all five talks in one session, so I might be switching between the sessions to go to different places.
4.8	23:05	Conference pro- gression	It would be helpful to see how far other session are (but not all, only the ones of interest).	So do you mean would that be something helpful for you to have a visual of how far other sessions are going so you know when exactly is the point that you need to switch over. yeah so that will be actually that will be helpful actually.
4.9	23:19			and also the other thing that could be helpful, is that you could, so I I started here, and then I want to listen to this talk. Unfortunately, everybody is also interested in that talk so the place is completely full so I could actually in physical space run over there and then I found that OK, I can't squeeze in at all, and then I had to at that time, find another session. Or I just stay outside and talk to people.
4.10	23:50		Most interesting things happen outside of sessions.	But actually do not underestimate that we most a lot of the interesting things happen outside of the sessions.
4.11	25:25		See 4.8	but what you would find helpful, is that you see how other sessions are progressing No, not all of the sessions. I would never get interested in order of the sections know I might have an interest in one other section, for example, and i'm thinking when should I go over.
4.12	25:42	Conference pro- gression	Most researchers' interests will not be that broad to be wanting to be in all different places.	And I am never interested in all of the sessions, because I can possibly. I mean, I cannot be in all different places and I just don't find that scenario reasonable. Most of the researchers their interest will not be that broad.
4.13	26:25	Conference progression	As a conference organizer it can be helpful to know what is happening in all sessions, to get a feeling of how the entire conference is going.	I mean, unless you are a conference organizer. If you are the conference organizer, then you might want to monitor all sessions, how they are doing with everything is doing fine. So they are these conference organizers that might want to get a feeling of what the entire conference is going on everybody is doing fine. That could be.
4.14	27:05	Living wall	It is nice to get a general feeling of participation.	I can imagine that you can have a screen there to show in the people that are joining from home yeah. To see how many of these online participants are there that could be interesting, because then you get a general feeling of participation.
4.15	27:21	Living wall	It not about representation of faces but how the people can participate in discussions.	But mostly for me it's not just a representation of the face, but also how they can participate in the actual discussions right.
4.16	28:02	Living wall	Would like similar rights to participate in discussions, independent form online or offline.	To give also the people that is in the audience physically and also the people that is joining online yeah similar kinds of right and, for example, applications or rules, for example, that.
4.17	30:07			And now, if you are talking about post pandemic situation, then let me ask you one question So how do you charge for the people that actually travel there and how do you try it for people that just join online, if you want to include increased inclusiveness, you cannot charge people too high, for example, the day join from the conference. And the other hand, if the people that has to travel there to the conference bear I mean pay has to pay much more what I mean by much more is a five times more.

4.18	31:19		Payment is important to consider, to keep physical conference sustained, instead of ending up with everyone joining from home.	but the reason i'm asking this question is because this also play a role, it could play a role in such a way that actually the physical conferences are un- sustainable and everybody just stay at home, so you actually won't have an hybrid situation at all.
4.19	32:45			There needs to be a way to enable a fair way so that people which can join actively from online, but also actively yeah physically. Otherwise you don't get a conference you get you you continue on having so you're hoping that there will be people traveling here, but then people cancel the appointment and they decided to join online and then, what do you have.
4.20	33:36		How do you ensure good participation from online and physical audience?	So how do you how do you ensure a good participation, both from the yeah online audience and also from the physical audience is also very important, do you feel that we should we give both parties, the same attention or more attention to people that actually travel there. And, and your decision could decide whether people decide to travel, not if I, if I can actually get more attention by staying home.
4.21	35:03	Conference pro- gression	For remote participants the visualization can help to get a feeling of the conference space.	The remote participant and get a feeling of what is going to conferences, then this visualization would that make sense.
4.22	35:36	Conference pro- gression	Does not want to look at the entire conference, but rather be present in one place.	when i'm physically there, I can only be at one place or. A few pre selected places I want to go I won't be yeah I won't be looking at the entire conference. Because yeah I cannot be all places, at the same time.
4.23	37:46	Traces of people	Not everybody wants to be tracked, but just listen to interesting talks.	I know not everybody likes to be tracked. Where they are in the in the conference, I just want to be here, I just want to listen to some of the interesting talks for, for example.
4.24	38:00	Traces of people	For more 'famous' people it would be hard if they are able to be tracked.	And, can you imagine so in indesign area, for example, Don Norman is very famous for example. Can you imagine what his life in the conference will be if people is able to track where don Norman is. So the situation is that there will be people want to talk to him and take him then yeah you wait i'll say for to talk to him. it can be an issue I think it's basically for people like don Norman you you, you want to go to a conference you want to listen to the most recent talk and then you have all kinds of fans following you.
4.25	39:49	Traces of people	Conferences are not an information search through a data base.	yeah I can imagine a database like that could be helpful, but usually, that is not how conferences works so conferences, is not an information search
4.26	40:40	Traces of people	For people at home, that is helpful to be able to search through people.	so for me, I think you are looking at this from the perspective of people that cannot be there, so in that case, then a name a list of names is not helpful, perhaps you, you should be able to search for the people, because you are not there
4.27	40:58	Traces of people	Finds people at conferences naturally in physical movement, if attending sessions of interest ('natural filter').	I often find that that when I go to these conferences, I have certain interest on certain topics right and if I go to that session I tend to meet the people with the similar interest right there I don't need to search for them it's a it's a natural. filter right, we are all there and we are interested in the same thing, and so we go to the same session, and then you say hello to all these people, so that it happened sort of naturally because. Because of a physical movement.

4.28	42:16	Traces of p	ls only interested in 10 or 20 people from working area and some friends with who she engages in conversations	there are maybe yeah 10 or 20 people that is really working in my area. And I would like to hear some of my friends, my colleagues that I know what is their newest project, you know what are they working on right now. And, and then, if the session is over, and we could preach it, I also share what I have been doing along this area and we chatted a little bit oftentimes we meet to update each other what we are currently working on, and also to share some information. And this happened in the physical space.
4.29	43:05	Traces of p	eople If you continue to go to conferences in your area you get to know the other researchers and build connections.	If you continue to go to these conferences and in these areas, sooner or later, you get to know the other more senior researcher, also in your field, and that is how people build up these connections.
4.30	43:23			I think you think very much from the people from home aspect and you need to know a little bit more about people. That yes actually going there.
4.31	44:40	Traces of p	How does this differ from linkedin? How is the people search within a conference content different from a broad er context, where I just do a search, do a literature search for people that also work in the same area as I do so, how does the context of conference differ matter in this design?	something like that, so what is, what is the connection through this conference that make sense?
4.32	46:29			do you think that if you go to a physical conference you know who is in the audience? Well, I can look around, I see the faces. So perhaps they're kind of. Some kind of duplication of that experience could be helpful, maybe.
4.33	47:00	Traces of p	lt is not about seeing every face in the audience but reconnect with researchers that is working in similar areas. Conferences is not a search, it is a display of people that potentially show the same interest as you in a certain topic.	but also for me, it is not, it is not about seeing every face
4.34	49:48	Pop-up tall	ks Normally it happens naturally, rather than announcing that they are going to talk in some cubicle.	I could see this could be useful, but yeah for me,
4.35	50:46	Pop-up tal	A space like this could be helpful if you know some friends online that would like to join.	<u> </u>

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4.36	51:43		You can never not miss any talk. A conference is more like a party.	but you in that aspect you can think of going to conference is almost like going to a party. you can never never miss any talk, you will miss some talk. And that's not the point, the point is that you are in the party and you meet with a few friends strike a nice conversation sometimes you run into Total stranger and then you also strike a really good conversation and discover a new way of doing research that's also very good, so no I'm not.
4.37	52:10			Okay, there are certain times, where I really, really want to talk to a particular author and then, if I miss any opportunity to talk to that one or two person I will be really said yes, but most of the time no.
4.38	52:49	generally	Creativity happens in spontaneous encounter. You cannot plan everything.	creativity, often happens in yeah spontaneous encounter right. you just can't plan everything and you just cannot say that oh I'm going to miss this, therefore, I need to be there, this is not how we actually do it.
4.39	53:33	generally	How can you make sure that these spontaneous elements maintain online? (I think I do that with visualization)	How can you make sure that this spontaneous elements somehow retain a little bit. There for me to be Interesting right.
4.40	54:34	Problem explo- ration	It is important to explore different problems in the world.	OK so number one I appreciate that to try to find a place where different people can explore important problems in the world that is definitely important.
4.41	56:07		Doesn't see the connection to other (hybrid) elements.	Okay, because you can also ask me in a pure physical conference would it be nice to have a session that we just sit down and explore world's problem. yeah. Do you do you see what i'm saying
4.42	57:45	Problem explo- ration	It enables to include people that would usually not attend conferences. Helps to break barriers in a hybrid setting.	so with that explanation makes sense, so there are certain moments where, if you really want to have a thorough discussion, it will be important to involve other people, people who might not attend this conference or might not attend this conference physically and so on and so, if you really want to discuss these problems and break these barriers that is usually encountered then hybrid setting makes sense.
5.1	13:28			I think, in general terms what I find interesting is that it gets the best of new opportunities that can arise from a digital situation. I found that the idea of being somewhere physical and at the same time they're being people in different parts of the world, but that all can be connected is explored and I find that interesting that I think different ideas with you that you're presenting tap into that opportunity.
5.2	14:43		Explores the possibility of being in the physical world but also exchanging ideas or information with something that is not happening in physical space.	I feel that there's also an opportunity. Because definitely the hybrid conference is not the norm, nor a common thing, and I think. Maybe the ones who can bring new ideas or rethink how we do things as the drs or any design community, the questions of the basic foundations of what conferences are, and I think with what you're doing in some ways it's actually tapping into that issue. You explore this possibility of being in the physical world but also exchanging ideas or information with something that is happening not in the physical space.
5.3	16:17			and in the beginning, you mentioned some interesting issues like the idea that information does not have to be produced at the same time, during the conference, but since we have the possibilities to exchange ideas before information before it can be done prior to the conference, and so that the interaction actually occurs before they meet and they focus on that meeting aspect of the conference, so I think that's a good point.

5.4	17:26	Pop-up talks	These new kind of interactions require some adjustments in physical arrangements.	yeah I think conceptually is a good idea, though it may present some difficulties. The most evident for me, maybe the physical arrangements, I was thinking there could be some physical difficulties in order to get that going maybe. I guess it depends on the place. Generally the conference I have gone to already have A general physical structure. Because of the thought to present in the general format of conferences which are rooms. They usually use rooms that are smaller whatever, but this kind of interactions require some adjustments.
5.5	18:38			I guess it depends on the on the possibilities of the organizer of the actual the actual place to in order to have it going many it's not that complicated depends on the possibilities of the organizers.
5.6	18:57	Pop-up talks	It may not happen organically and therefore needs some design in order to encourage people to join (e.g. without having the feeling of interrupting). For example, space marking, or explaining idea, or a metaphor with table (see 5.7).	And I thought I saw something really interesting is in terms of the social interactions you mentioned the people who actually go there. And I think that's that interesting that there's something really specific what i'm going to tell you. In terms of social interactions it not, it may not happen organically, I feel there's a need to something that presents that idea that anyone can just go in and it's not disturbing or. even something as simple as a sign that presents that idea and I was thinking like if you mark that spacing the floor, then when you're in that space it's really open. It could go beyond the idea that it is just: you're welcome to enter whoever you are. But also other philosophies (metaphor?) or ideals like: also open to exchange ideas you can be open to give your point of view. That kind of interactions so yeah
5.7	20:20	Pop-up talks	Use of metaphor of half a table to resemble meaning of idea.	maybe something that could also this idea is that the table since it is going to be Next to a wall and a TV or whatever. Maybe the table doesn't need to be rounded but rather like Half and they extend it so. It resembles this idea of that there is a world that actually goes beyond.
5.8	21:29	Problem exploration	Don't restrict it to problems but bring a topic to discuss together with other people from around the world. It puts the person on screen (or with problem) in a different power relation situation, so it would be better if it is more of a conversational thing.	maybe it shouldn't be restricted problems. I feel that, because two main reasons, one is because. It kind of puts the person in the screen in a different power relation situation where he is the one who's invited to this place to present his it's problem and the other ones are going to give them solutions, but rather I feel it's better if it's more of a conversational things so you bring a topic, maybe it could also be a problem for the ones on other side. And they discuss about it so then it opens more possibilities because it's not just the problems, they identified previously, but just interesting things discussed or can be brought to the space to discuss with other people around the world, or something like that, so I think that opens the possibilities there.
5.9	22:58			But I would Open the main theme not over the problem itself, but rather the topic or the theme that is interesting to discuss.
5.10	23:39	Conference progression	Values how ideas and information is developing through visualization of ramification.	that's really interesting and I like the idea of the ramification and how you see the information that the interactions the will the developing.
5.11	24:21	Conference progression	It is important to have a general overview when you are joining online.	I think That is really useful to have this general overview. it's something you cannot do in a physical conference but I think it's important to have this general overview and I think this idea is achieving that.

5.12	24:52		nference pro- ession	It is important that you can see something like comments, and not just the big view.	I think, is that element that you put in the board in the yeah in the wall looks at comments. I think that's really important for me, I think. And not just seeing what's going on in like a big view.
				Also get a little bit detailed perspective of what is happening (e.g. elements lighting up and showing comments).	I imagine like then some of the element of these ramifications can like lighten up and then it shows kind of comments that are happening so. You also get a little bit of detailed perspective of what's happening there and goes away and then another one pops up maybe that's really interesting.
5.13	25:57		nference pro- ession	It would be nice to show a bit more human dimensions: be able to see what is happening inside those dots that are appearing.	If you see the ramifications and the developments it seems to me that you may want to also see what's happening inside those dots that are appearing. I think what kind of information is appearing within those ramifications, so a way to show a little bit of the human dimension of it.
5.14	26:40		nference pro- ession	It would be nice to have quote of presenters.	I was thinking, it would be nice to have quotes but that would require a lot of effort in order to get the quotes up there. but if you if you do have the comments I think that's really good.
5.15	27:06		nference pro- ession	Be aware about how much information is enough, so that digital and physical space are not competing. Comments would be enough in physical.	Something I also was thinking on the other side of the spectrum is. To be aware that. What amount of information is enough or good enough, yeah because it's hard to pay attention to what's happening in the physical space and how to avoid those to compete so I think, for me, is enough to have some comments.
5.16	29:07	Tra	ices of people	Would be nice to find ways to interact digitally beyond zoom sessions, meeting and finding people through an interactive platform.	So for those who are not in the conference, there might be a way to actually interact digitally beyond general zoom session, it was something I don't remember the name of that platform. What happened there was that you saw like the floor from upwards so Like a mirror let's say yeah so everyone was there moving but they have a certain orientation of focus of listening so your headphones would hear what the focus of your element will be pointing at, so you have like two persons and they look and when they talk, they can hear each other and if someone's walking around so it's kind of a recreation what happens in a physical space. In order to prompt the serendipity of finding people by exploring the interactive platform, you also get to know other people.
5.17	30:24	Tra	ices of people		because for those who are not physically in the conference I'm thinking of like what can be provided to them to also experience things beyond the chat so that's why maybe also there could be some ideas for.
5.18	31:00	Tra	ices of people	There is an opportunity to make physical and digital space coexist.	because I see in the bottom of that is that it may not need to be revolving around the physical dimension of it, and then the digital is going around the physical but rather make it coexist. So they're all just spaces that appear in the digital space. And somehow they also could intersect or something, but I think that's what is in the bottom of that yeah.
5.19	32:26	Tra	ices of people		I see that as an opportunity I feel is good, I think it is necessary. But Just in terms of the actual interaction I think there will be an opportunity to go a bit further say okay let's meet in Room s and then it's not a zoom it is an actual place and then you can have some kind of interactions and something like that.
5.20	34:27	Per ule	rsonal sched-	Helps to explore different possibilities.	If I choose one session. He could give me some recommendations for other sessions that other people have chosen. yeah or they have similar topics, or something. yeah that could help explore all the possibilities.

5.21	34:49	Personal sched- ule	Prefers to use an app or calendar and connect it with activities outside of conference.	In my case I would rather use the app and the calendar and maybe put it in my own calendar. Then I can connect with my activities outside of the conference and then make space for that, and if I get a meeting I could say no, I have the session so let's do it after that.
5.22	35:56	Traces of activities Conference progression	The concept of ramification is very nice because you are able to see what you are missing, of what you are doing too much or too much of one thing. It helps you to explore new things.	Definitely I think that's really nice. The whole concept of the ramification is really, really nice, because then I can see what also I am missing. Or maybe I am doing too much of just one branch of the whole conference. yeah and then I realized oh my i'm just doing this and then I could explore others, so I think that's really nice.
5.23	36:42	Traces of activities Conference progression	There should be some UI elements to ease the usability of it (like choosing a branch and it will expand etc.).	No, I just think that when it's implemented there must be some UI elements in order to ease the usability of it, I guess, if you choose one branch, then it will expand bigger so you can actually see that there's more elements but beyond that, I think it's good.
5.24	38:20	Traces of activ- ities	It would be nice to be able to mark highlights, a way to visualize highlights (to revisit those), because the conference experience is about memories.	maybe when it comes to my own experience of a conference. I think it will be interesting that I could mark what is it like highlights of it. yeah way to, it's not a log, but it's a way to visualize
		Conference progression		one's highlights, because at the end the conference experience is about Memories, people you met, things that happen, thoughts that pop up from something you heard, maybe you want to pinpoint that and then it shows in this graphic what were your kind of highlights, and then you can revisit those. That is something that may be interesting.
5.25	39:55	Traces of activities Conference progression		But actually in terms of the general graphic approach I don't really feel I have problems with it. I think the ramification is good just how to enhance what it can provide to the person so. I feel that the highlights. could be interesting, in a way to enhance this experience. Not just you see the ramifications, but then you can also zoom in and get the actual experiences that happen within that graph.
5.26	40:54	Traces of activities Conference progression	People should be able to chose what to put in their highlights.	I think that's something that everyone can build for themselves, so they choose what to present on their highlights.
5.27	41:05	Traces of activities Conference progression	It could be interesting if the conference organizers also present some highlights and you can see that in traces. So people can see fragments (e.g. 10 video) of an interesting moment in a session or keynote because it enhances the experience for those who missed some elements.	But also something that could be really interesting is that the organizers also present some highlights of each ramification for everyone to see so here's the whole Conference and you can see what happened in the traces they left in the ramifications, but also, you have the highlights, so people can see maybe fragments of one session. Maybe a keynote speaker that said something really interesting and one moment and then it appears those 10 seconds of what he said. These kind of small experiences or moments that happened throughout the conference good enhances experiences for those who missed some elements of it.
5.28	42:30		Motivating feelings arise from ideas.	the main feelings, I have is really interesting and motivating as well so mostly the kind of positive ones.

5.29	42:49		My ideas leads people to thinking of what else they can do, which is most interesting.	I guess just to stress the idea that I feel what's maybe more interesting for me from the approach you are having is that in exploring this possibilities that are hybrid I think the most interesting thing is that it leads people thinking of what else they can
			It explore actual hybrid possibilities that happen both in the digital and physical space at the same time.	, ,

2 Structuring aspects within ideas

In general

It helps in interacting/networking more effectively. Sometimes it can be hard to do so in the actual location, when it is big.	P2
2.39	
It helps overcome intimidating situations (e.g. going to a mic to ask a question) 2.41	P2
Explores the possibility of being in the physical world but also exchanging ideas or information with something that is not happening in physical space.	P5
My ideas leads people to thinking of what else they can do, which is most interesting.	
It explore actual hybrid possibilities that happen both in the digital and physical space at the same time.	
5.2, 5.29	
Motivating feelings arise from ideas.	P5
5.29	
Creativity happens in spontaneous encounter. You cannot plan everything.	P4
How can you make sure that these spontaneous elements maintain online? (I think I do that with visualization)	
4.38, 4.39	

1 Continuous background elements

Individual space takes some of the hard work away and makes the conference experience more relaxing.	P1, P2, P5
The individual space enables the participant to have a more holistic view on the conference, because it helps you to navigate through a conference (guidance).	
The visualization helps to create a good overview of the conference to which people will probably respond positively.	
The continuous background elements help to understand what is happening at the conference and making choices in where to go.	
The concept of ramification is very nice because you are able to see what you are missing, of what you are doing too much or too much of one thing. It helps you to explore new things.	
1.19, 2.11, 2.37, 2.38, 5.22	
More pragmatic ('old folks') might have problems with the different design.	
2.36	

Conference progression

Δα.	a a a b	Doubicinous
Ası	pect	Participants

Values to see the conference progressing	P1, P5
Values how ideas and information is developing through visualization of ramification.	
1.2, 5.10	
Values the metaphor of seeing the conference progress, as in a growing and blossoming tree.	P1, P2, P3
Likes the representation as trees.	
Looks cool.	
1.5, 2.24, 3.2	
It gives you a holistic view on what is going on (holistic timeline).	P2, P3, P4, P5
As a conference organizer it can be helpful to know what is happening in all sessions, to get a feeling of how the entire conference is going.	
For remote participants the visualization can help to get a feeling of the conference space.	
It would make the navigation of a conference much easier, in contrast to a list of sessions.	
Likes to see real time how many people are present in other sessions, because it might lead him to go to a certain session.	
It could be useful to have it at the entrance of the conference (e.g. when you're late it might help you to decide in which room to go).	
It is important to have a general overview when you are joining online.	
The concept of ramification is very nice because you are able to see what you are missing, of what you are doing too much or too much of one thing. It helps you to explore new things.	
2.20, 4.12, 4.21, 2.22, 3.13, 5.11, 5.22	
You might see things that you would have otherwise missed, compared to scrolling through a list of events.	P2
It provides opportunities to explore topics that you would have never explored otherwise.	
Find unexpectedly interesting topics/sessions through visualized conference space.	
It encourages people to explore topics that might be out of their scope.	
2.23, 2.28, 2.29	
Conferences often try to synchronize sessions so that switching between sessions is easier.	P4
It would be helpful to see how far other session are (but not all, only the ones of interest).	
4.7, 4.8	
Likes it as an out-of-the-box idea, because conferences can be quite standard.	P2
2.24	
It might be interesting if it shows real-time what is being discussed in other rooms.	P3
3.9	

Shouldn't be in the presentation room because you want to focus on the presentation.	P3, P4, P5
Does not want to have the feeling as if she is trying to attend five sessions simultaneously.	
Wants to focus on session she is in.	
Attention is limited.	
Does not want to look at the entire conference, but rather be present in one place.	
Be aware about how much information is enough, so that digital and physical space are not competing. Comments would be enough in physical.	
3.11, 4.1, 4.3, 4.22, 5.15	
Use data that represents ideas and content, instead of making popularity visible.	P1, P4, P5
Would like to incorporate subjective measures in visual: how inspiring is a session, what new connections were made etc.	
Wants to meet the few key authors from her research area, and not attend session with most people.	
It is important that you can see something like comments, and not just the big view.	
Also get a little bit detailed perspective of what is happening (e.g. elements lighting up and showing comments).	
It would be nice to show a bit more human dimensions: be able to see what is happening inside those dots that are appearing.	
It would be nice to have quote of presenters.	
1.4, 1.8, 4.5, 5.12, 5.13, 5.14	
Represent emerging overlaps (circles) within sessions and content in visual instead of having individual trees of sessions.	P1, P2
Could imagine the conference as a network diagram, instead of trees.	
1.6, 2.26	
Can imagine an interactive diagram to explore conference space.	P2, P5
There should be some UI elements to ease the usability of it (like choosing a branch and it will expand etc.).	
2.27, 5.23	
With suggestions of similar or out-of-the-box talks/topics.	P2
2.28	
Does not need a visual. Paper booklet works fine.	P3
Does not give much added value than what you already have in the paper booklet.	
Is fine with the paper schedule and circle the places he wants to go.	
3.3, 3.6, 3.15	
Imagines it to be expensive (viability might be low).	Р3
3.12	
V-22	

Wants to have an in-depth understanding of one particular topics, instead of knowing what is happening at the conference overall.	P4
Participants are not people with general knowledge but they are interested in particular topics (research focus), which is why they often prepare in advance where to go, which sessions to attend.	
Wants to meet the few key authors from her research area, and not attend session with most people.	
Will only be interested in a few sessions and a few key authors to further her research.	
Most researchers' interests will not be that broad to be wanting to be in all different places.	
4.3, 4.4, 4.5, 4.6, 4.12	

Living wall

Aspect	Participants
It is nice to get a general feeling of participation. 4.14	P4
It could lead to everyone turning off their camera, so that the presenter sees that everyone minds their own business.	P3
3.1	
Does not care about people at home and would rather interact with people in physical space.	P3
3.4	
It is more important to make people at home feel more engaged.	P3, P4
It not about representation of faces but how the people can participate in discussions.	
3.5, 4.15	

Traces of activities & people

Aspect	Participants
A shared visualization is a good way to incorporate people from home.	P1
1.9	
It is useful to find people you met.	P1, P2
	,,,,
Likes to be able to see who you met, because often you don't remember or don't	
have business cards.	
1.13, 2.16	

It is useful to know who is planning to go to which session.	P1, P2, P3
It is nice to know beforehand who is going to which session.	
Often you go to a conference to meet specific people (that you already have in mind), knowing where the different people are helps you to do so more effectively.	
Knowing who is where and how to find them is useful because the reason you go to conferences is to meet people and start a conversation.	
1.14, 2.15, 3.8, 3.14	
It can be a conversation starter when you see that another person attended the same sessions (ice breaker).	P1, P2
It helps introverts to approach people.	
Creates a more inclusive and friendly space for new/shy people to engage.	
1.15, 2.15, 2.17	
Individual space takes some of the hard work away and makes the conference experience more relaxing.	P1
1.19	
For people at home, that is helpful to be able to search through people.	P4
4.26	
The concept of ramification is very nice because you are able to see what you are missing, of what you are doing too much or too much of one thing. It helps you to explore new things.	P5
5.22	
It would be nice to be able to mark highlights, a way to visualize highlights (to revisit those), because the conference experience is about memories.	P5
People should be able to chose what to put in their highlights.	
It could be interesting if the conference organizers also present some highlights and you can see that in traces. So people can see fragments (e.g. 10 video) of an interesting moment in a session or keynote because it enhances the experience for those who missed some elements.	
5.24, 5.26, 5.27	
Not everybody wants to be seen at conferences.	P1, P2, P3, P4
Some people do not like their faces visible, prefer privacy.	
At a physical conference a name tag is only visible once you approached a person, here it is all out there.	
A famous person might not like / gets overwhelmed with requests because it is so easy to contact them. How do you control this?	
Privacy concerns with having people be visible.	
Not everybody wants to be tracked, but just listen to interesting talks.	
For more 'famous' people it would be hard if they are able to be tracked.	
1.11, 2.12, 2.13, 2.18, 3.9, 4.23, 4.24	
People might not like the ease by which strangers can contact you.	P2
2.14	

Does not have time to look back at what he did.	P3
Wouldn't look back at traces or rewatch sessions because he would prefer to enjoy	
free time in evenings.	
3.16, 3.17	
Wouldn't rewatch sessions, because of preparation before the conference (what content to watch, who to talk to,).	P3
Would prefer to do research in what he would be interested in instead of having sessions suggested.	
3.17, 3.18	
Is only interested in 10 or 20 people from working area and some friends with who	P4
she engages in conversations.	
It is not about seeing every face in the audience but reconnect with researchers that is working in similar areas.	
4.28, 4.33	
Finds people at conferences naturally in physical movement, if attending sessions of interest ('natural filter').	P4, P5
If you continue to go to conferences in your area you get to know the other researchers and build connections.	
How does this differ from linkedin?	
How is the people search within a conference content different from a broader context, where I just do a search, do a literature search for people that also work in the same area as I do so, how does the context of conference differ matter in this design?	
Conferences is not a search, it is a display of people that potentially show the same interest as you in a certain topic.	
Would be nice to find ways to interact digitally beyond zoom sessions, meeting and finding people through an interactive platform.	
4.27, 4.29, 4.31, 4.33, 5.16	
There is an opportunity to make physical and digital space coexist.	P5
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5.18	

Personal schedule

Aspect	Participants
Early in the career you go with your crowds, but later it is interesting to have sessions suggested that are different to your field.	P1, P5
Opportunities to recommend sessions similar to or opposite to your interest.	
Helps to explore different possibilities.	
1.16, 1.17, 5.20	
Essential to have an app as a schedule, paper based is very wasteful.	P1
1.18	
Individual space takes some of the hard work away and makes the conference experience more relaxing.	P1
experience more relaxing.	
1.19	

Prefers to use an app or calendar and connect it with activities outside of confer-	P5
ence.	
5.21	

3 Momentary elements

Would like the momentary elements to be less dependent on space.	P1
1.25	

Pop-up sessions

Aspect	Participants
Spontaneous get togethers to discuss certain topics and have it open for people to join is nice.	P1, P2, P3
It is a nice way to communicate (let other people know) about the session.	
It would help shy people, for example, to get together and talk, because it is a more structured and inviting way to facilitate spontaneous discussions.	
1.20, 2.2, 3.21	
Likes pop-up talks because there is always a need for spontaneous discussion.	P2
Allows you to explore a topic. Often you cannot talk to the presenter afterwards: line too long, can't find presenter, etc.	
2.1, 2.3	
It does not require you to know people to discuss.	P2, P3
It would help shy people, for example, to get together and talk, because it is a more structured and inviting way to facilitate spontaneous discussions.	
It works as an ice breaker for people to discuss stuff.	
This design gives most people an opportunity to talk with people and discuss topics.	
2.1, 3.21, 3.23, 3.24	
A space like this could be helpful if you know some friends online that would like to join.	P4
4.35	
Not all conferences have the possibilities to facilitate a space like this (breakout area with chairs and technology). How could you still do it if you didn't have these sort of facilities?	P1, P3
Cool idea. Wonders how it would be facilitated.	
1.21, 3.19	

Requires technology to make online people feel really included.	P2, P3, P5
The idea as a basis is cool, now, it needs to be designed right in the details (what do different people need?).	
These new kind of interactions require some adjustments in physical arrangements.	
It may not happen organically and therefore needs some design in order to encourage people to join (e.g. without having the feeling of interrupting). For example, space marking, or explaining idea, or a metaphor with table (see 5.7).	
Use of metaphor of half a table to resemble meaning of idea.	
2.4, 3.21, 5.4, 5.6, 5.7	
Personally never has problems approaching and talking to people.	P3
3.22	
Normally it happens naturally, rather than announcing that they are going to talk in some cubicle.	P4
You can never not miss any talk. A conference is more like a party.	
4.34, 4.36	

Problem exploration

Aspect	Participants
It helps scientists to recognize what kind of impact their research can have.	P2
Validating / eye-opening for researchers in realizing where their expertise can make a difference.	
It might help scientists to be more brave about giving input.	
2.31, 2.33	
Finds it important to create more conversation and connect researchers with people who take that knowledge (practitioners).	P2, P3, P4
It is a nice way to address the problem academics becoming too detached from reality.	
It is important to bridge the gap between what happens in the real world and what academics are doing, to avoid the risk of creating (irrelevant) research that practitioners don't use.	
It is important to explore different problems in the world.	
2.32, 3.25, 3.27, 4.40	
It enables to include people that would usually not attend conferences. Helps to break barriers in a hybrid setting.	P4
4.42	

It should be more like a collaborative workshop experience instead of people sitting in rows.	P1, P2, P5
Making the format more casual/intimate (café style) might contribute to a safe space (making it less intimidating).	
It puts the person on screen (or with problem) in a different power relation situation, so it would be better if it is more of a conversational thing.	
1.23, 2.35, 5.8	
Consider to make a safe space in which people want to share thoughts: keeping it hypothetical for researchers might help.	P2
2.34	
It already happens to some extend at conferences.	P3
3.26	
Don't restrict it to problems but bring a topic to discuss together with other people from around the world.	P5
5.8	