



Competencies for Research (C2): Summer School @Polimi

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Erasmus+ project DoCS4Design (Doctoral Courses System for Design)

Participants: PhD candidates at partner institutions

Time: 15-21 June 2022

Location: in-person, at Politecnico di Milano

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15 jan 2024



DoCS4Design

Doctoral Courses System for Design

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Topic & Need

The initial stages of the PhD in Design are often focused on the positioning of research, which is rarely an easy task given the nature of the design discipline, often dealing with cutting-edge issues across disciplinary fields. Hence, the first PhD year(s) is crucial for students to critically understand how their research exists across domains, academic debates, contexts and practices. In this scenario, after digging in and deepening their research theme, understanding existing connections and not yet existing ones, PhD students can look at their research from a bird's-eye view and critically reflect on it, connecting their research topics to the role of design research in general. The competence to critically reflect on what "is being done" and the epistemological reflection is a crucial asset that novice researchers in training should acquire, especially since research is taking place in a varied landscape of knowledge that design is. A reflective moment becomes an opportunity to reflect on one's theme by connecting it to general issues debated in contemporary times (e.g., global crisis, sustainability) that intercept crucial issues for the twenty-first century.

Participants & Goal

The goal of the activity is to create a space for participants to collectively and individually reflect on an overarching and transversal topic and connect such reflection with one's own research. The in-person collaborative group work aims to guide students in crafting an investigation integrating diverse epistemological, experimental, and cognitive models into an unscripted exploration. Additionally, the course emphasises the codification of non-textual knowledge, encompassing visual and practical aspects and acknowledging elements like negative knowledge, tacit understanding, learned ignorance, and biases in the research process.

Format (how we worked)

The course consists of a one-week in-person and works with 30-35 participants, with around 20 from Polimi (i.e., the students enrolled in the first year), 5-2 from the other EU partners and 2-1 from the extra EU partners. The class composition reflects that the course has been organised at Polimi, also involving faculty members as the teaching and organising team. To do that, a topic is proposed as an overarching guiding theme for the reflection: for instance, the 2022 edition (funded activity in the DoCS4Design project as training event C2) focused on the theme "Design in Time of Crisis", while the 2023 edition focused on the theme "Design That Lasts". The multifold nature of knowledge around the topic is emphasised by the week's structure, which sees participants engaging in lectures about key aspects of the overarching topic of the week, group debating on selected readings, guest lectures, project work, and teamwork in small design teams (in the figure, the programme of the 2022 edition, C2 is depicted). Throughout the course, participants engage in two parallel modes of learning: one which prospects "outwards" to experience and learn from how others think and work; the other focuses "inwards" on refining and shaping their own individual practice.

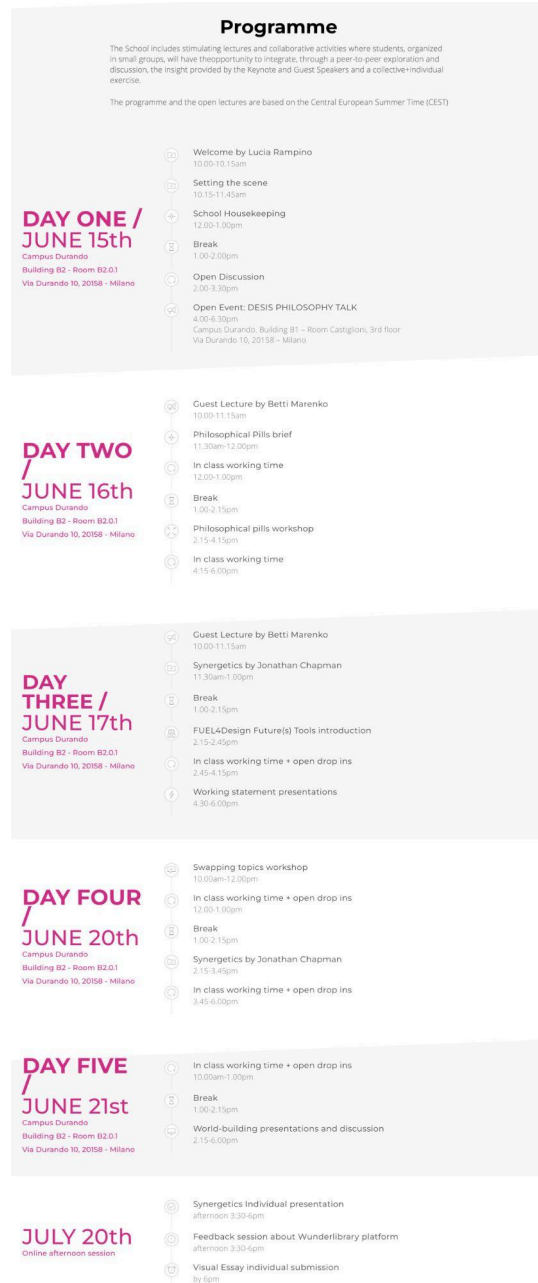


Figure 1: the program of the activity for the 2022 edition (C2) that was dedicated to the theme “Design in Times of Crisis — Inquiring the role, agency, and responsibility of Design for decolonising, (un)knowing, and world-building”. The full offer and program can be found on [this webpage](#).

During the week, the transversal topic of reflection is proposed to students in their initial stage of PhD, and it is handled by performing group work to develop collective thinking around it. After the in-presence week, students are asked to develop an individual reflection on their own research topic in light of the overarching topic and the collective reflective activity carried out throughout the in-person week.

Participants develop a collaborative outcome at the end of the week that consists of a presentation summarising their main group reflections on the topic. The last in-presence moment is dedicated to presenting the findings of the reflective journey to the other participants and the teaching staff and discussing them together. After around a month, each participant delivers a presentation of the self-reflection, which is usually framed in a standard format or exercise presented during the in-presence week. In the case of the 2022 edition, we also tested the Wunderlibrary by asking students to upload their final self-reflection on the platform, sharing the knowledge developed throughout the course. The testing was beneficial for platform development afterwards (e.g., user testing of authoring and upload) and to disclose the potential of these activities shared among participants from the network to create individual outputs with a standard format to be shared as OER on the Wunderlibrary.

Resource materials developed

For each edition of the activity, literature, materials, and exercises related to the overarching topic addressed during the week were collected. Any specific materials to be used for the format have been developed. Focusing more specifically on the 2022 edition, the materials employed for the group activities and reflections have been adapted from already existing tools developed by the Future Education and Literacy for Design project, also funded by the Erasmus+ programme and aimed at supporting designers for designing for complex tomorrows. On the other hand, the individual reflection of PhD students was developed by the exercise Synergetics, designed and proposed by Jonatha Chapman (see appendix).

Outcomes

Over the years (i.e., editions held in 2021-2023), around 90 students from the partner institutions took part in the activity. Only in 2022, also thanks to the DoCS4Design funding, the C2 training event served 38 PhD candidates.

Participants enjoyed meeting in person with other students in the network and knowing how many diverse themes were addressed by different people in the six institutions. Also, the individual reflection proposed through the Synergetics exercise, helped students to focus back on their research theme, enriching it also thanks to the reflections developed collectively. Participants received course credits according to the rules at their own institution.

Impacts & Feedback

Encouraging a holistic research perspective, the activity promotes a bird's eye approach, linking individual research topics to the broader role of design research, and enriching the depth and breadth of participants' investigations. The emphasis on critical reflection, including epistemological reflection, provides participants with lifelong skills, contributing to ongoing intellectual development. Engagement with contemporary issues ensures participants develop a sense of responsibility and relevance in their research efforts. Collaborative group work lays the foundation for interdisciplinary collaboration, and the network created during the activity serves as a valuable resource for ongoing collaboration, knowledge exchange and community building among the partner institutions. In addition, the materials developed, including literature, exercises, and platform tests, might contribute to populating the Wunderlibrary in the future, which could evolve into a lasting source of OERs for the benefit of participants and the broader academic community. Institutional recognition through course credits further ensures the sustainability of the program and its long-term impact. In summary, the activity provides immediate benefits and trains reflective, interdisciplinary and socially engaged researchers, contributing to the advancement of design research throughout their careers.

Specifically, in the 2022 edition, several students valued the opportunity to extend their networks, by working with other PhD students from different schools and building together, with a critical mindset, a scenario for the future that enriched their research despite the different topics they

addressed. This is well depicted by the words of one participant, Michelle Cedeño, in the final presentation video that was displayed at the end of the week:

"We had a really great time gathering together and talking about our PhDs; it was really interesting to know each other topics and perspectives. We learned that we all focus on very different and separated themes; some of them include machine learning ethics, de-skilling, societal challenges, public engagement, democratic practices, and information transfer, along with ownership and behavioural change."

Credits

The course was organised by Chiara Colombi, Manuela Celi from Polimi, and Jonathan Chapman from CMU. In the 2022 edition (C2) Betti Marenko from the University of Arts London also significantly contributed to the organisation as a guest lecturer, and Ammer Harb and Erminia D'Itria supported the teaching staff as teaching assistants.

All partners contributed to the output:

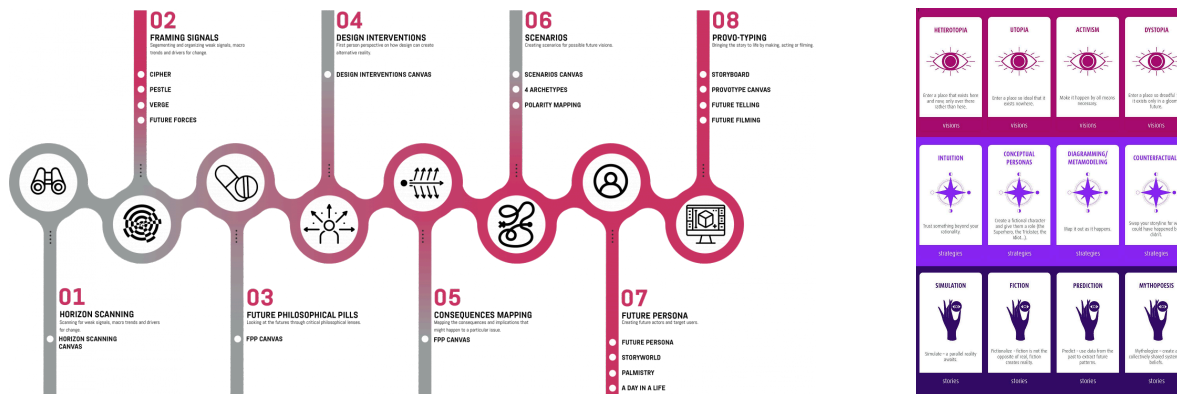
Aalto University	Elise Hodson, Guy Julier, Sampsa Hyysalo
Carnegie Mellon University	Jonathan Chapman
Illinois Institute of Technology	Carlos Teixeira
Imperial College London	Weston Baxter
Politecnico di Milano	Annalinda De Rosa, Fabio Figoli, Francesca Mattioli, Lucia Rampino, Paola Bertola
TU Delft	Annemiek van Boeijen, Erika Hajdu, Pieter Jan Stappers, Wilfred van der Vegte

The report was edited by: Francesca Mattioli and Jonathan Chapman.

Appendix

Teaching and learning materials employed for the group activity during C2

Most of the teaching materials employed during the 2022 edition of the Summer School (C2) to guide the group activity were the ones developed and published in 2023 by the Fuel4Design Eu funded project, fully available on the webpage of the project (www.fuel4design.org). More specifically, during the Summer School 2022, the Futures Design Toolkit and the Future Philosophical Pills.



Futures Design Toolkit Elements (left) and a view of the Future Philosophical Pills, retrieved by www.fuel4design.org

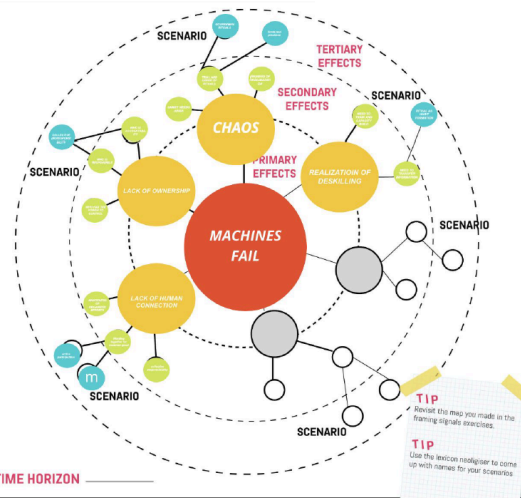
Group Work Outputs - Example of slides from the final presentation of C2

The images depict some of the slides employed by Team 1, composed by Michelle Cedeño (Imperial College London), Rachele Didero (Politecnico di Milano), Giovanni Davide Zenga (Politecnico di Milano), Kata Fodor (Aalto University) as a result of the group activity during the Summer School edition 2022. The full slide deck and the video of the presentation are available as attachments.



Statement

*In a **seamless future** how can we create **governmental rituals** for citizens to become **collective owners** of data and data processing capabilities to act as **ethically conscious stewards**?*



COLLECTIVE PARTICIPATION

GOVERNMENTAL RITUALS

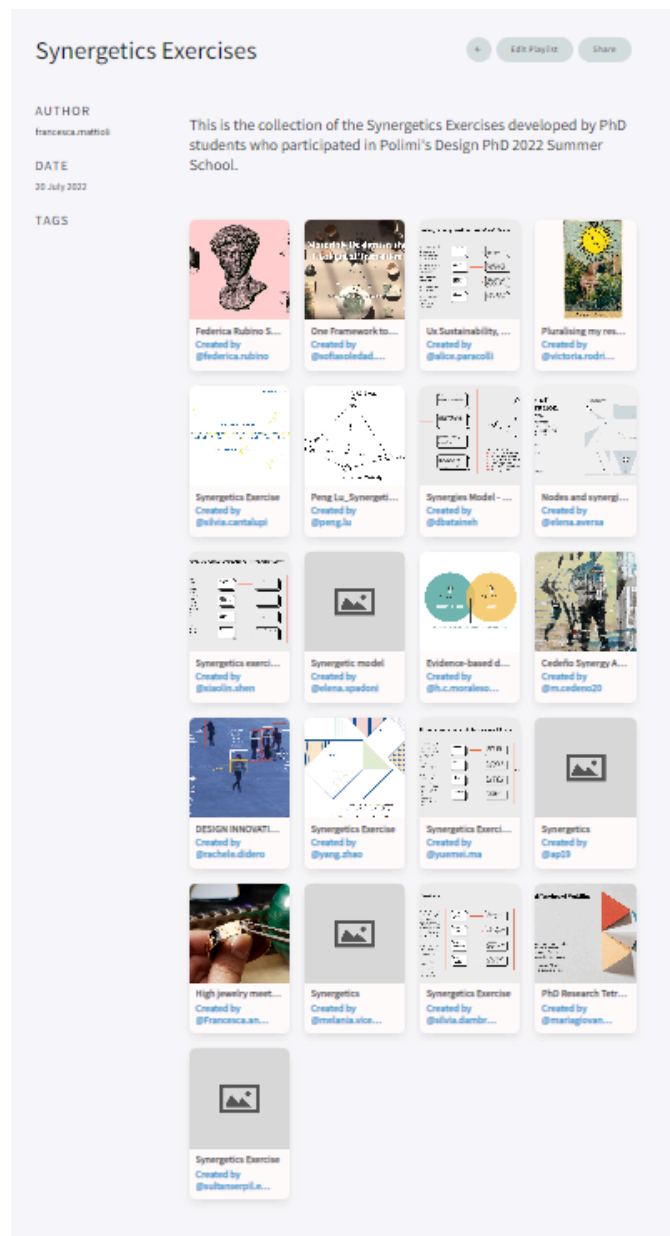
Governmental policies? // Active Citizenship?

Proposed Ritual

How fully do you feel we exploited the opportunity of us coming together here at summer school?

PhD students' Individual Reflection Outputs on the Wunderlibrary after C2

The image depicts the playlist of the Synergetics exercises, outputs of the individual reflection, uploaded by students on the Wunderlibrary.



The image depicts the OER created and shared on the Wunderlibrary of the Synergetic exercise uploaded by the student Federica Rubino.

Federica Rubino Synergetics Exercise

← Download Resource

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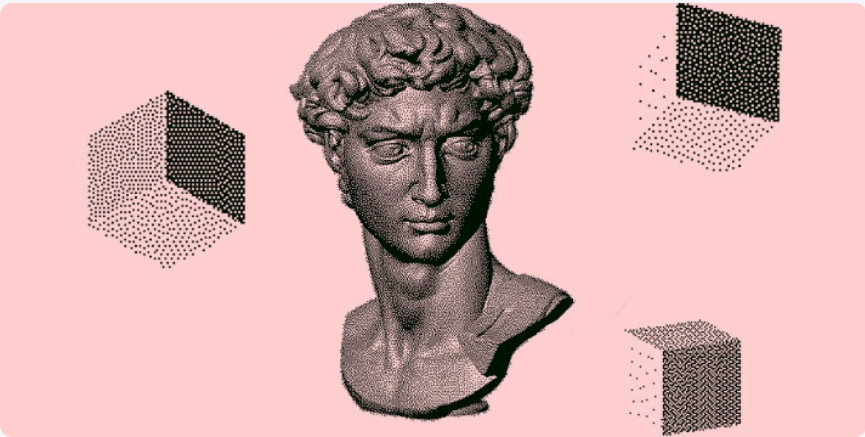
DATE
18 July 2022

RESOURCE TYPE

- > Open Educational Resources
- > (Semi-finished) Design Research Outputs
- > Phd Researches
- > Not Defended
- > Initial Stage

TAGS

- museums
- performance management
- blockchain
- digital strategy
- digital upskilling
- synergetics
- synergetics exercise



Design-driven adoption process and upskilling of blockchain-based digital strategies and participatory performance management framework for Italian museums