

SCIENCE MATTERS: SCIENTIFIC AND ARTISTIC RESEARCH

Science Matters: Scientific and Artistic Research was an experimental, cross-disciplinary course that brought together students from different academic levels (Bachelor, Masters and PhD) across the different Circle U universities. Students engaged in multi-lingual collaboration (in English, French, or German) with international peers from the life sciences, social sciences, humanities, and arts. The Science Matters course fostered a collaborative learning experience, in which students critically reflected on their own disciplines and research practices. They used a wide range of unfamiliar research materials and techniques (such as drawing, collage, digital design, or AI image generation). This course emphasized coproduction, offering opportunities to experience ways of thinking, working and making through discussion, text and image-creation. These approaches are inherently plural and invoke multiple perspectives simultaneously.

The course addressed mapping as a form of knowledge production and knowledge representation, by combining group exercises and guided prompts, short lectures (covering Ontology and Epistemology, Multi-omics Data Integration), and guest lectures on interdisciplinary research practices. Working through these activities, the participants developed a common visual language, created and curated the images displayed on this poster, and shared their experiences, assumptions, and questions arising within their respective fields.

Course participants reported that, despite the challenge of working in an open structure across different academic levels, disciplines, and languages, the learning experience was rewarding. They reported that the course provoked questions and helped participants to develop their own research practices. The course began with 40 selected applicants representing over 18 native languages, of whom approximately 70% completed the course with a high level of engagement. This level of commitment and participation in the course surpassed expectations and prior experiences of online learning for both teachers and students.

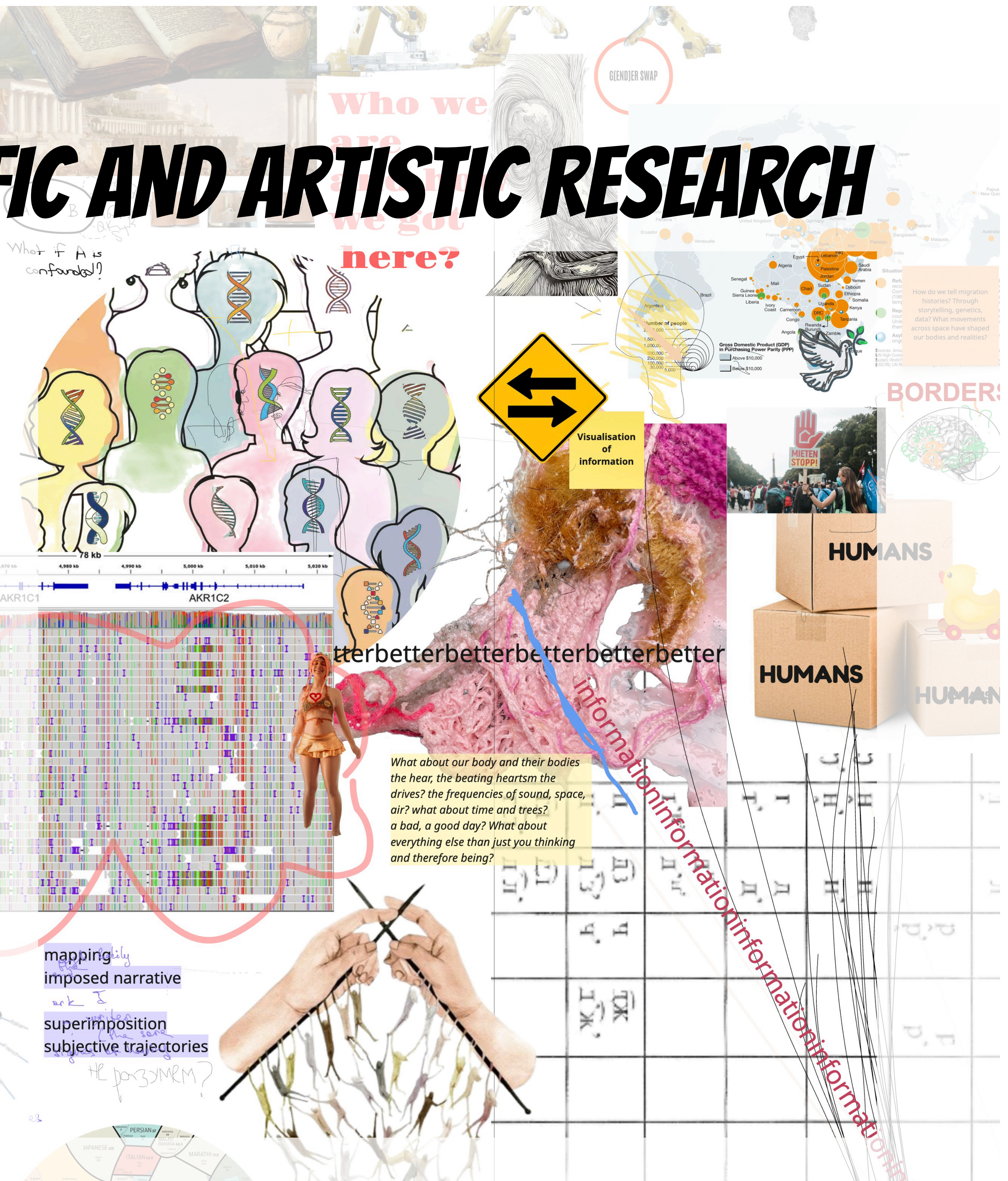
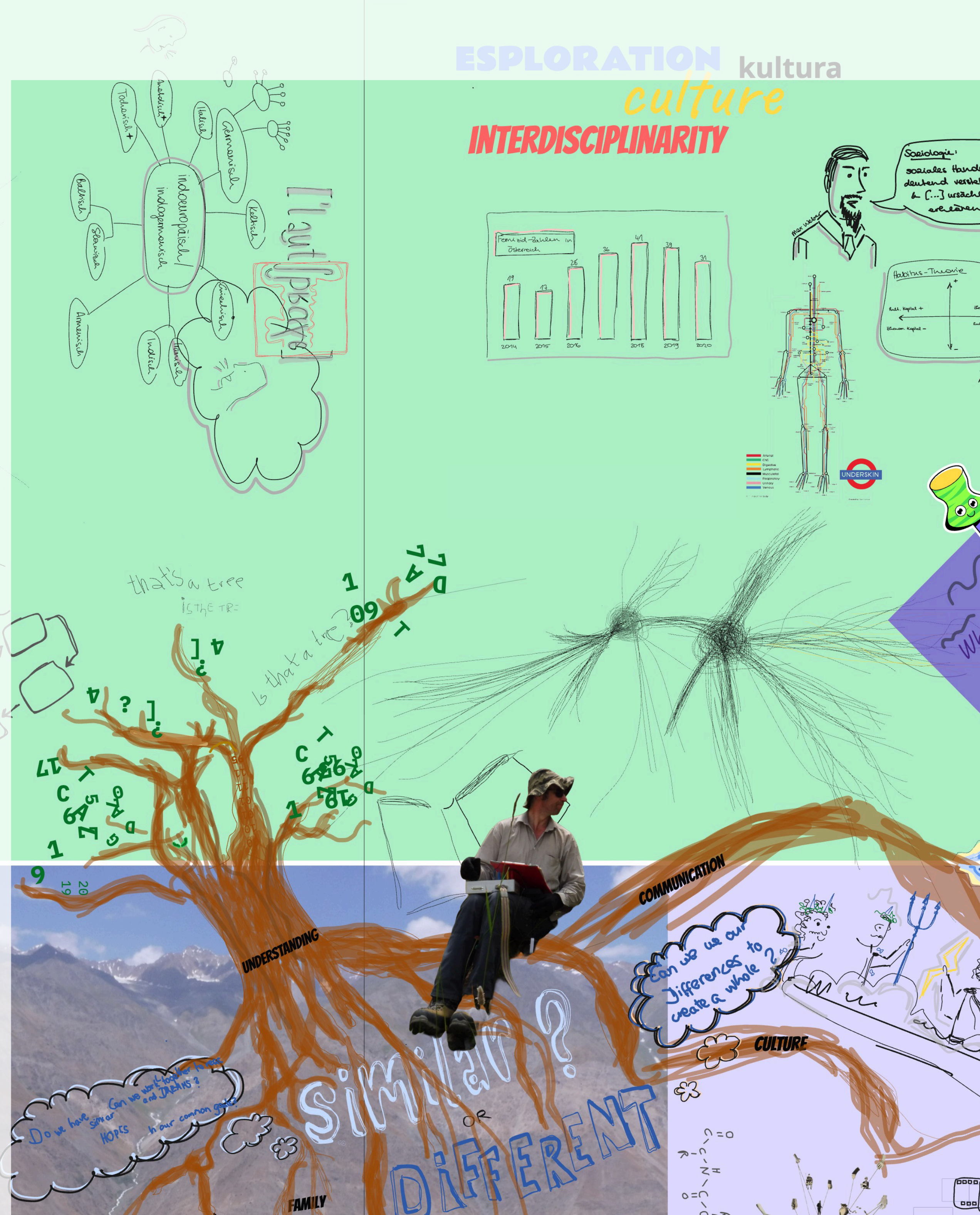
The tangible outcome of the course is a physical, configurable poster and its digital representation.



mockup for the printed publication

Pedagogic Description: Learning was facilitated through group work, using methods of research in and through materials and situations in digital space. This practice-first approach to interdisciplinarity included mapping, scaling, translating, (re)annotating, curating and peer-learning.

Implementation: Groups were formed prior to the start of the course using a principal of maximal heterogeneity - specifically each group contained participants from each disciplinary field and academic level. The groups were organised according to working language (English, French, or German) and contained participants capable of translating from the group working language into the other two languages. Digital tools included the platforms Zoom, Moodle, and Miro.



The online format succeeded in bringing together participants from eight universities for six days of intensive workshops. This would have been challenging to achieve at a shared physical location. However, the difficulty of implementing the fast-paced methods of material research in the digital space was obvious. The opportunity for co-working across great diversity, remains a strength of the COIL format, but regret about a lack of materiality remains.

Lessons learned: In the plenary sessions the language defaulted to English despite the open encouragement and facilitation of multilingualism. The groups which were identified by a working language had mixed success. It is likely that the qualifying level must be increased from B1.

Generally, the lack of structured instructions created an experimental learning environment in which students felt safe to step out of their comfort zones and explore inter-disciplinary spaces. There was a shared appreciation of the benefits of this approach that maximized potential for cross-disciplinary, cross-campus, multi-lingual learning. The teaching team concluded that this experiment in online learning should be explored further and that Circle U offers an ideal environment to develop pedagogical innovation.

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