

Digital Innovation Season:

The Extra Fuel

2021

June 2021



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The scope of this report is to illustrate the Digital Innovation Season (DIS) and present the key findings that have emerged through a period of post-DIS consultation (with academics) and survey (with students). The report evaluates these insights, reflects on the DIS impact, and proposes a set of recommendations for the college around how emerging/digital technologies can be best supported in the future for both academics and students. This report is produced with the support of the Knowledge Exchange Impact Fund awarded to Dr Betti Marenko to conduct an evaluation of the DIS, gather stakeholders' feedback and indicate potential avenues for scalability, intervention and future planning.

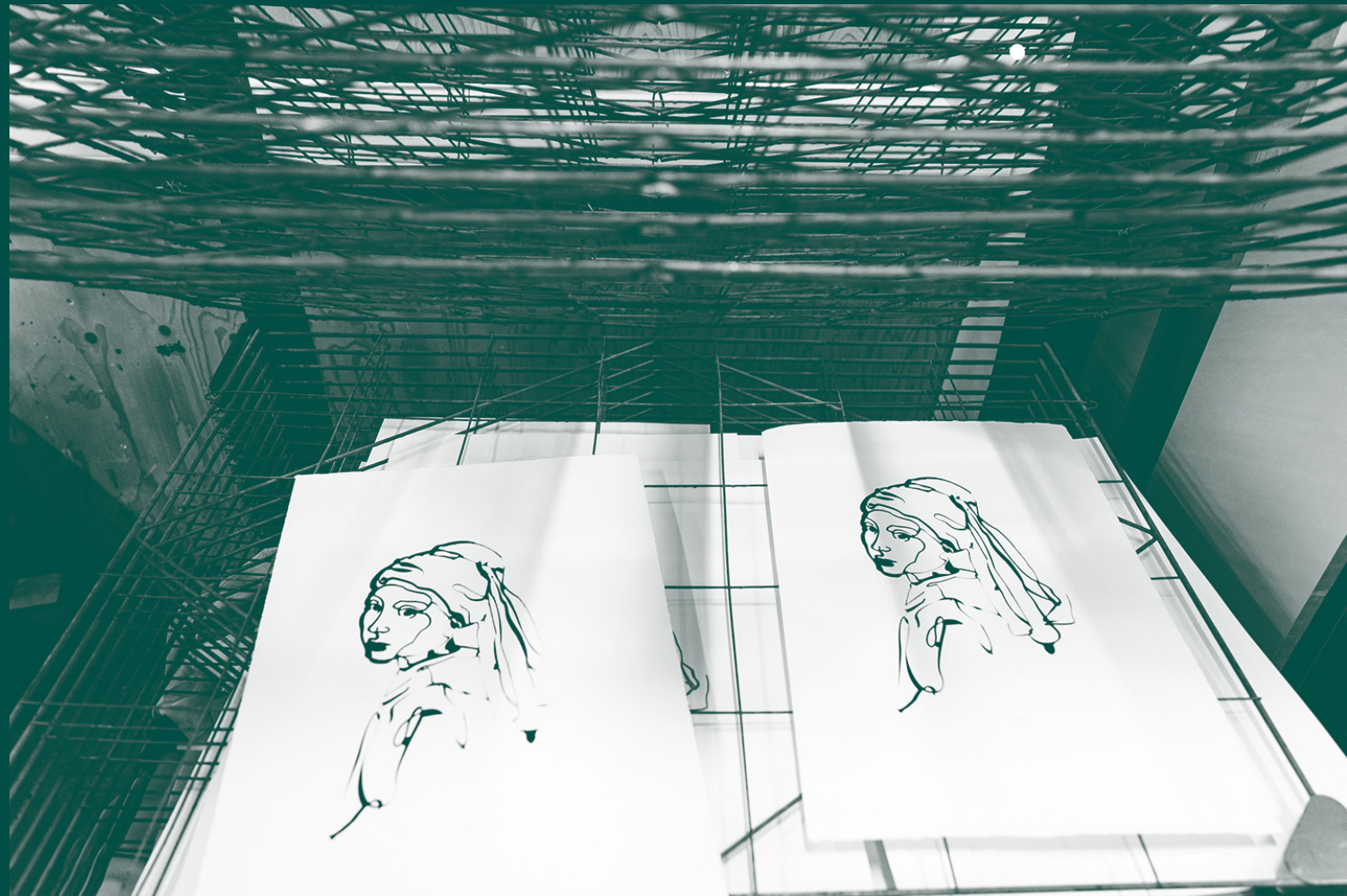
Content and method: Insights were drawn from the following sources: a) Student Survey circulated at the conclusion of the DIS (February 2021); b) Academic Roundtable (May 2021); c) Student Focus Group (May 2021). This material was integrated with personal communications, and informal conversations with both students and staff.

Title: The **'Extra Fuel'**. This is how one of the students who took part in the focus group described the DIS, capturing DIS's essence: the **Fuel** necessary to ignite creativity and make the engine of creative practice run longer; and the **Extra** element it provided from its location outside taught curricula as additional content for student to choose from.

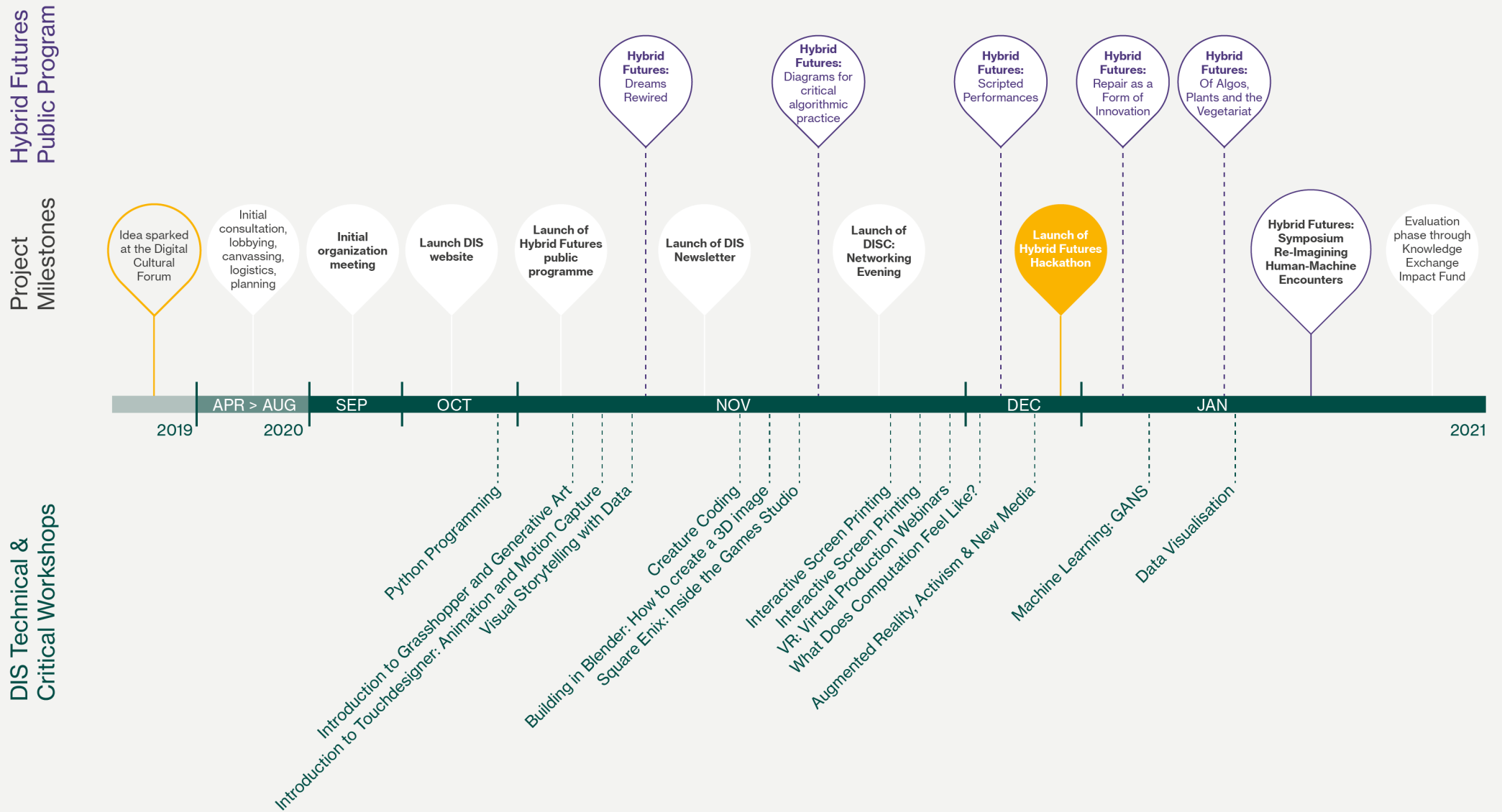
Credits: Content: Dr Betti Marenko. Reader in Design and Techno-Digital Futures. Design: Kaye Toland. Strategy and Community-building. Thanks to John Wollaston, Sam Mitchell, and Stefan Sloneczny.

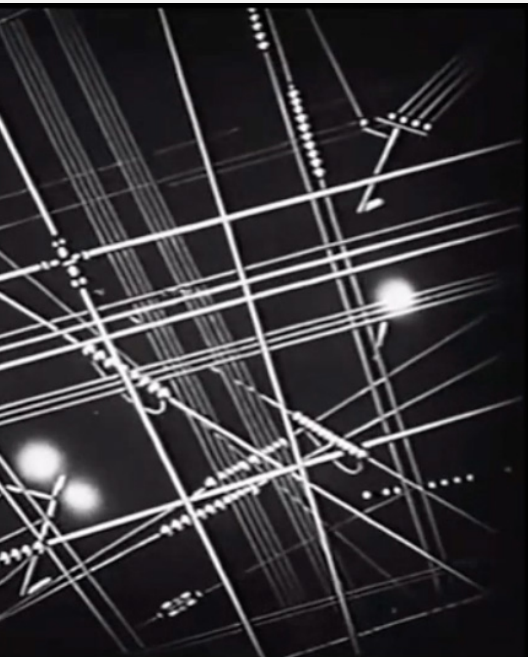
FACTS

Interactive Screenprinting Workshop, Fabio Lattanzi Antinori, 2020

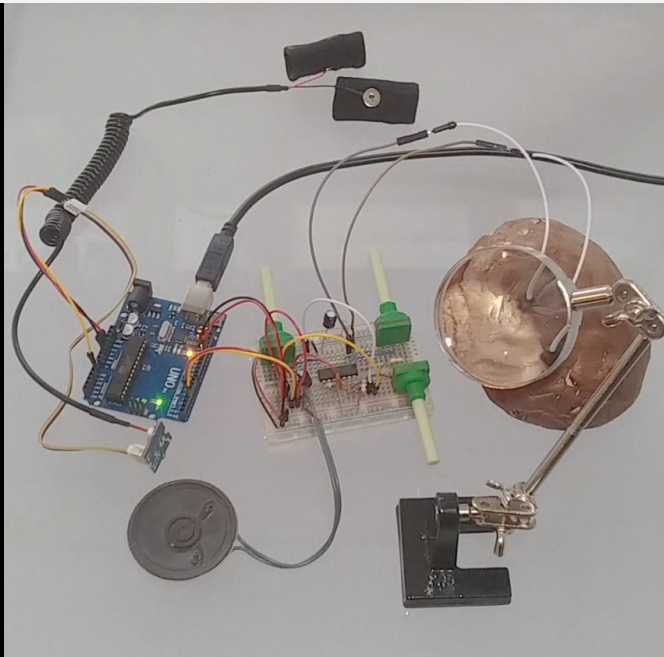


DIS at a Glance





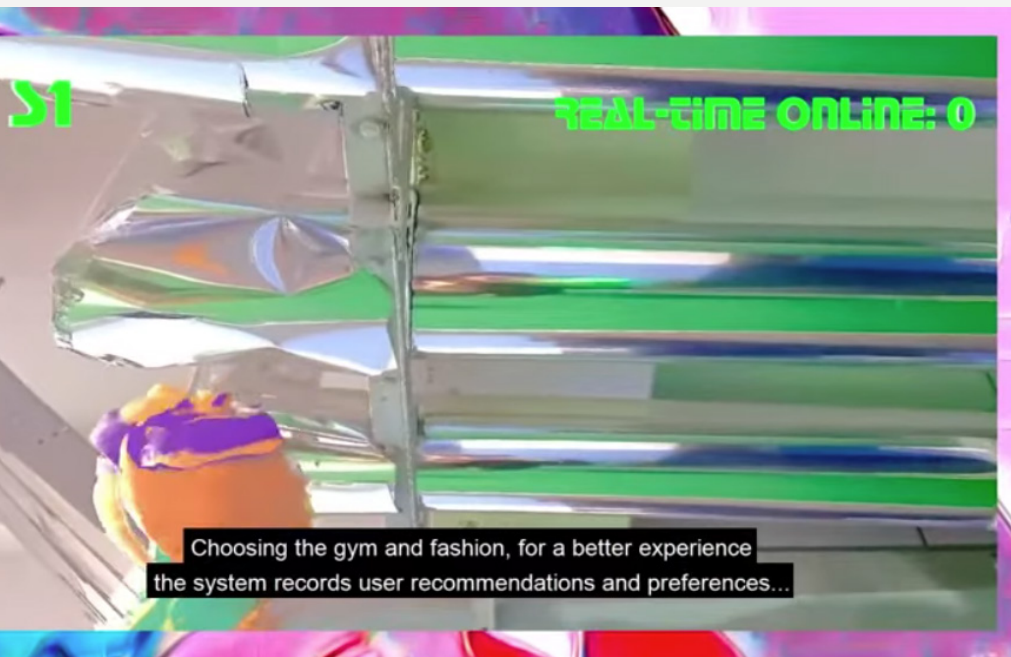
Manu Luksch talk, 2020



FungOS, Hackathon, 2021



Maggie Roberts talk, 2021



What's in that drawer, Hackathon winner, 2021



Nicolas Nova talk, 2021

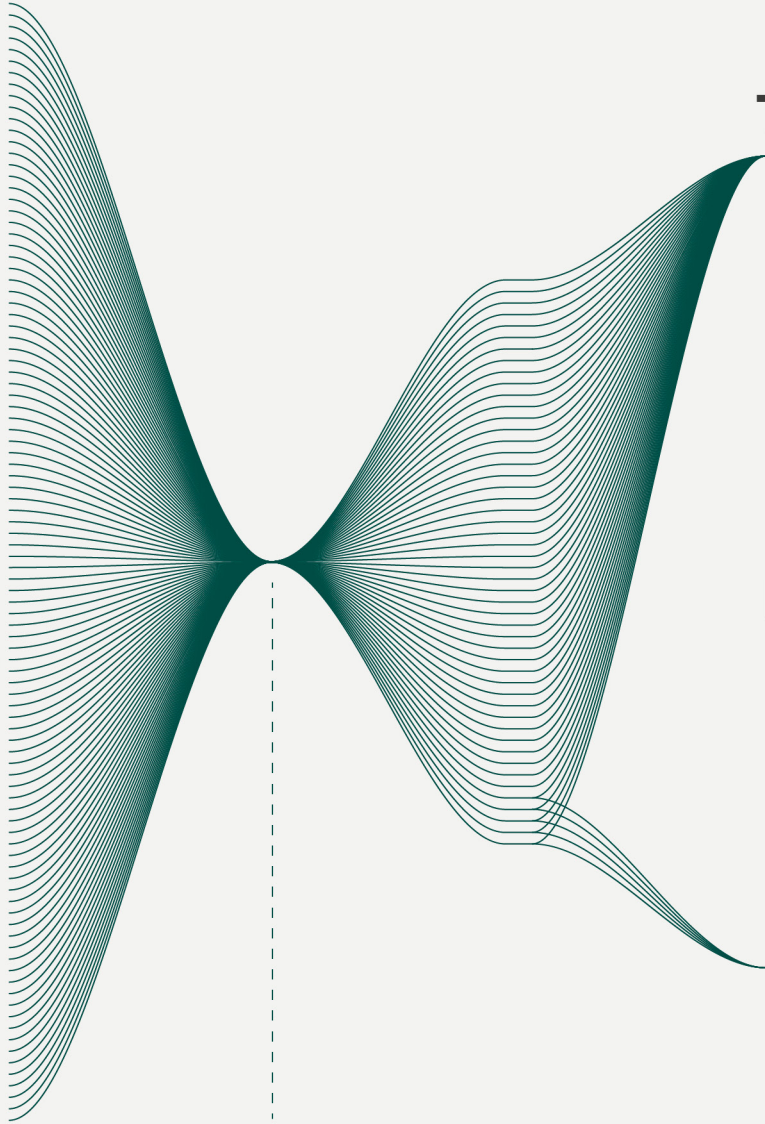


The wisdom of soil, Hackathon, 2021

828 applications to events from students

24 event partners from 16 countries

1 line represents 8 students



485 students shortlisted and offered places

Technical & Critical Skills Workshops

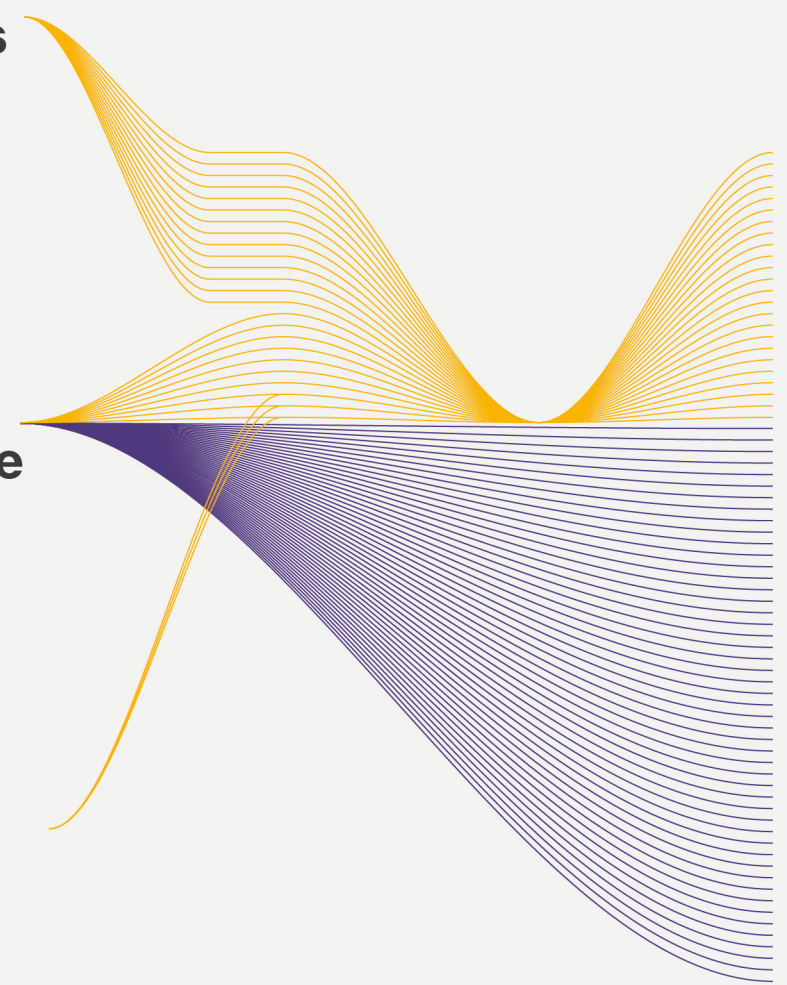
105 hours of extracurricular student-facing sessions, delivered over 32 workshops

Hybrid Futures Public Programme

5 public talks & 1 international symposium streamed live on CSM YouTube

Hackathon

3 weeks, 2 facilitators, 5 mentors & 40 participants: 9 cross-course teams, 6 shortlisted; 4 winners



1 line represents 75 people

Over 3,750 organic views on CSM YouTube post-live delivery

*YT organic views are comprehensive of both students and general public

The Digital Innovation Season: Aims

The DIS was conceived as an extra-curricular, cross-disciplinary programme of events, activities and workshops around new and emergent technologies. Throughout the period October 2020 – January 2021 the DIS offered Central Saint Martins students the possibility to:

- take part in curated activities presented by external experts
- experiment with a creative approach to technologies
- engage with current discussion with international leading thinkers and practitioners
- develop technical abilities and skillsets
- work with peers across different programme and courses

The opportunity to develop the DIS came from the latter stages of a cross-college partnership with telecoms company Three¹. Initially devised as a short-term initiative that could harness the investment made in the Three Innovation Studio, and pivot fast into a student-facing offer, the DIS grew in purpose with the ambition to build a cross-programme community of practice around advanced and emerging technologies and with a view to developing sustainable learning models beyond February 2021. The primary input of the corporate partner extended to the co-branding of the season. All decisions around content and curation were taken independently by Central Saint Martins and by the **DIS curatorial team** [see page 37].

The key pillars that informed the development of the DIS were:

- **cross-disciplinarity:** enabling a range of disciplines to come together
- **adaptability:** ensuring quick response to students needs and demand
- **transversality:** engaging different levels of studies and stages of expertise
- **currency:** providing cutting edge content in research and practice around technologies

¹The partnership included sponsorship and input into two MA Fashion Shows, and a significant £314,116 investment into the hardware, software and infrastructure of the Digital Media spaces at the college, renamed the Three Innovation Studio for the duration of the partnership until early 2021. In its final stages it also included two in-curriculum projects across Product Design, Fashion and Material Futures, bringing in a further £190,000 of income.

These pillars coalesced in two central ambitions:

1. **Building a community of digital practice.** The DIS offer was designed to maximize peer-to-peer exchange and collaborative learning for CSM learners interested in new and emerging technologies. It was open to all students across courses, programmes and level of study (UG and PG) and also to the 2020 cohort of graduates. With community-building at the forefront of its aims, the DIS wanted to devise and implement teaching and learning formats that could be highly responsive to student interests and demands, while retaining cohesion across a varied offer of activities, experiences, modes of engagement and types of content. Some of these formats were experimental and planned while the season was already in motion (e.g. the Hackathon).
2. **Strengthening critical technology literacy.** The DIS offer was informed by the idea of bringing together creative practice and critical thinking to provide an understanding of technologies that would be relevant to, and tailor-made for, CSM learners. Workshops, sprints, seminars and technical skill activities were complemented by **Hybrid Futures** - a programme of talks with external speakers and an international symposium, open to the general public and free. Hybrid Futures was curated by Betti Marenko with the specific aim of augmenting critical literacy around the use of technology, creating a counterpoint to and resonance with the learning provided by the rest of the DIS.

**To be able to engage with criticality is why I
am doing a product design course in an art
school**

(Student Participant)

Are you a robot?, Hackathon winner, 2021



The Digital Innovation Season: Context

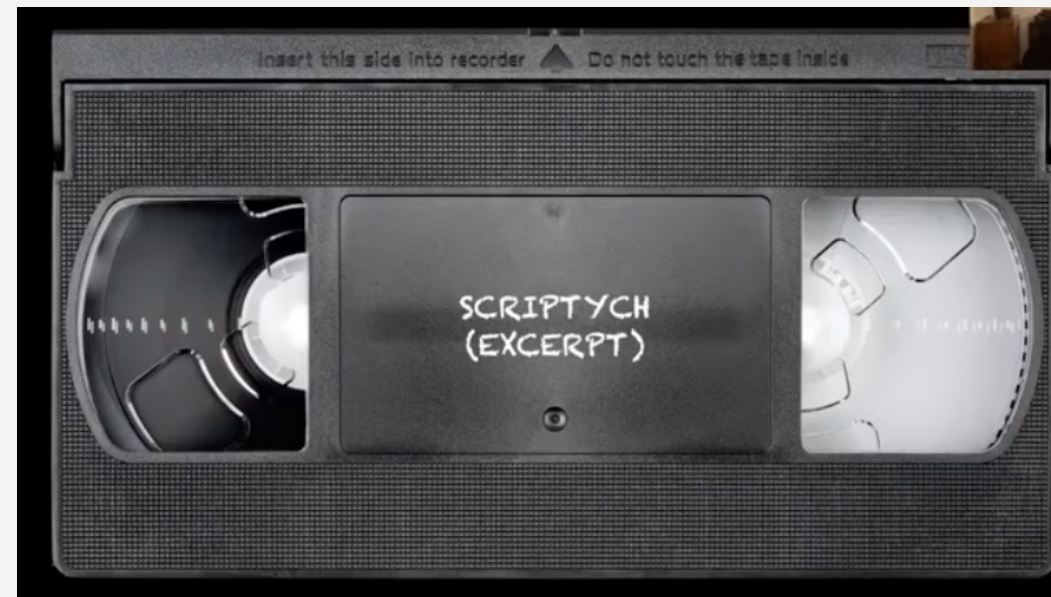
The usage of technology and approaches to digital innovation at Central Saint Martins are traditionally dispersed, with pockets of practice and student engagement varying from course to course and across programmes, and with clusters often built around individual research profile and expertise. As a consequence, the distribution of, and access to, technical competence offer can be highly localized. Framed as ‘technical competence’ it tends to lack the support of, and dialogue with, critical perspectives on technology, drawn from fields such as critical algorithm studies, STS (Science and Technology Studies), digital media studies, feminist theories, new materialism, and the post-humanities.

With the impact of computation increasingly felt globally at multiple environmental and ecological scales, and redefining what counts as human (cognition, affects, perception), it becomes necessary to furnish learners with more advanced critical capacities, better integrated with creative practice. Students must be able not only to engage with the opportunities offered by technologies, but also to have the tools to interrogate, critique and contest the many issues technologies raise – e.g. surveillance, digital governance, politics of extraction of human and non-human resources, digital inequality, ethics in AI, to name but a few – and be able to reflect on how these might inform their creative practice.

Some of these issues were outlined in the position paper The Hybrid Futures Lab presented to the college executive board by Betti Marenko in October 2019². This paper, with its initial suggestions in favour of a more integrated development of critical

literacy at CSM, consolidated a series of initial conversations with John Wollaston that took place during the ‘Digital Culture Forum’ series organized by the Associate Dean of Learning, Teaching and Enhancement Silke Lange from early 2019.

Ollie Palmer talk, 2020



²paper available: <https://artslondon.sharepoint.com/:b:/s/3XCMSM/EZ8cwt7akhxOrYndLStUFaIB-DuvAzmvfyb00PZosAacJVg?e=n4iwSz>

At the outset of the DIS overall data on the appetite and demand from students to engage with these agendas was limited, with the programme curation relying more closely on anecdotal information, intelligence from Course and Programme teams and direct interaction with students to gauge where interest in these areas lay. With limited groundwork to build upon, the DIS content and structure relied extensively on the individual expertise, existing networks and personal affiliations of the DIS organisers, curators and technical experts. In a short period of time they built an efficient team that succeeded not only in the design and on-time delivery of an ambitious programme, but also in its agile and highly responsive fine-tuning and expansion in response to students' engagement and feedback.

It should also be acknowledged that there is a narrative around the growth of roles in the labour market that fuse creative and digital skills that students are increasingly aware of in the context of their own future development. Research by the Creative Industries Policy and Evidence Centre points towards this fusion, correlating it with occupational growth areas in the future. Students clearly responded positively to the programme as a career-enabling resource.³

³<https://www.pec.ac.uk/assets/publications/The-Creative-Digital-Skills-Revolution-the-PEC-and-Nesta-24-Oct-2019.pdf>

The Digital Innovation Season Ethos: Hybrid as boundary-crossing



Špela Petrič talk, 2021

The idea of **hybrid** informs the DIS and recurs as a constant through several aspects of the programme:

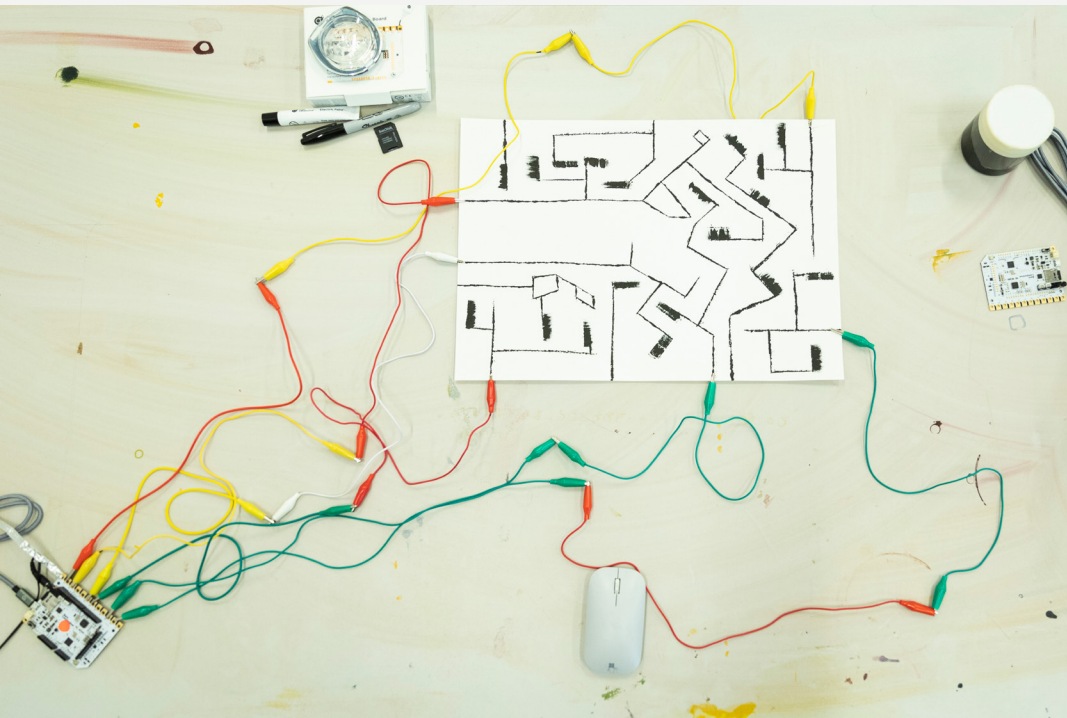
- the **theme** of the season: “How to envision future modes of human-machine encounters”
- the mix of **experiences and formats** on offer, each with its own way of producing knowledge: technical skill-building workshops, hands-on demonstrations, artists’ talks, theoretical lectures, brainstorming sessions, facilitated peer-to-peer events, seminars, mentorship opportunities, informal feedback and social networking
- the emphasis on **‘thinking through making’** and **‘learning by doing’** in the coming together of creative practice, critical interrogation, digital up-skilling and research
- the cross-disciplinary teamwork with the clear purpose of **breaking legacy barriers** between academic, technical, KE, I&B and teaching staff
- the **student collaboration** across different stages of their studies
- the intention to **trouble conventional distinctions** between theories and practices, the speculative and the pragmatic, discourses and experiments, as well as, ontologically, between the human and the artificial.

The Digital Innovation Season: Content

Workshops. Sprints. Seminars. Technical Skills

Students were given the opportunity to try out digital technologies they may have been unfamiliar with, and meet working creative practitioners from a variety of industries and backgrounds. Self-selecting students applied for limited places in workshops and seminars to enhance their creative projects and deepen professional interests. Some of these softwares, languages and technologies are currently not well supported within Central Saint Martins' programmes and technical workshops. The range of activities broke ground for developing technologies at the college, stimulating a slow-moving large institution with an agile response to student, course and technicians' challenges reflective of current emergent creative digital practices and careers.

Interactive Screenprinting Workshop, Fabio Lattanzi Antinori, 2020



EVENT	PARTNERS	OUTCOME
<i>Python Programming</i>	Long Nguyen, computer scientist with interests in computational design thinking and digital construction. Research Associate at Institute for Computation Design, Stuttgart.	Workshops built up user proficiency in Python programming for beginners new to this language.
<i>Introduction to Grasshopper and Generative Art.</i>	Igor Pantic, architect and computational designer. Lecturer at The Bartlett, UCL.	Workshops in generative design and material systems informed by algorithmic logic.
<i>Introduction to Touchdesigner: Animation and Motion Capture.</i>	Youngjun Chang, theatre design digital creative. Recent graduate of Wimbledon College.	Workshops in building 3D content, images and sound in Touchdesigner for interactive multimedia performance.
<i>Visual Storytelling with Data.</i>	Valentina D'Efilippo, designer, illustrator and creative director. Charting compelling visual narratives and meaningful user experience through data design.	Workshop in creating infographics, introducing opensource tool Raw-Graphs for data visualization.
<i>Creature Coding</i>	Jack Clarke, designer and researcher, Tutor at Camberwell College of Arts.	Workshops offered hands-on creative coding in p5.js for interactive design, iteratively introducing more sensory inputs to the interactive digital creature.
<i>Building in Blender: How to create a 3D Image.</i>	Corentin Charron, computer graphics artist at Blinkink animation studio, director and digital environment design.	Workshops introducing beginners to 3D workflow in the free opensource 3D creation suite Blender.
<i>Square Enix: Inside the Games studio</i>	Alejandro Arque Gallardo & Rachele Doimo. Alejandro is a senior game designer and director, Rachele is an art director in the video games industry with a traditional arts background.	Seminar offering insights into game design, digital environment and character design, and creative project management.

EVENT	PARTNERS	OUTCOME
<i>Interactive Screen Printing.</i>	Fabio Lattanzi Antinori, data and computational artist, sculptor, printer, writer and researcher with shows at Royal Society of Sculptors, Seoul Museum of Art, MoCA Shanghai, and works held in public collections of National Museum of Modern & Contemporary Art Korea, Seoul Museum of Art, London V&A, Rovertto Villa Lagerina, Pisa Crespina Museum and The Open Data Institute.	Hands-on workshops in physical computing, textiles printing and paper printmaking.
<i>VR: Virtual Production.</i>	Galen Davies, producer at Epic Games (previously Quixel) working across game development and moving image VFX industries.	Workshop in 3D modelling, sculpting and asset libraries for environments and props in Unreal and Unity.
<i>What does Computation feel like?</i>	Zach Lieberman, renowned new media artist, designer, computer programmer and educator, co-founded School for Poetic Computation in 2013, co-creator of OpenFrameworks an opensource C++ framework for creative coding. Associate Professor at MIT Media Lab.	Hands-on seminar using drawing and objects to explore computational processes and interactivity.
<i>Augmented Reality, Activism and New Media.</i>	Ricebox Studio, a design studio collective of UAL/CCI alumni Safia Ahmed, Bristy Azmi, Maria Than & Anna Tsuda, using creative technology and visual communication for social good.	Ricebox ran an intensive sprint over three days in the run-up to 2020 Christmas break, designing and building AR filters for social media.
<i>Machine Learning: GANS.</i>	Josh Murr (CCI), Computational artist, tutor and MSc graduate at UAL Creative Coding Institute.	Hands-on workshops introducing machine learning with generative adversarial networks Pix2Pix and StyleGAN, using Python and Tensor-Flow.
<i>Data Visualisation.</i>	Federica Fragapane, independent, award-winning information designer with work for Google, BBC, UN, Penguin Books and National Geographic.	Workshops in data analysis, visual experimentation and visual representation of data.

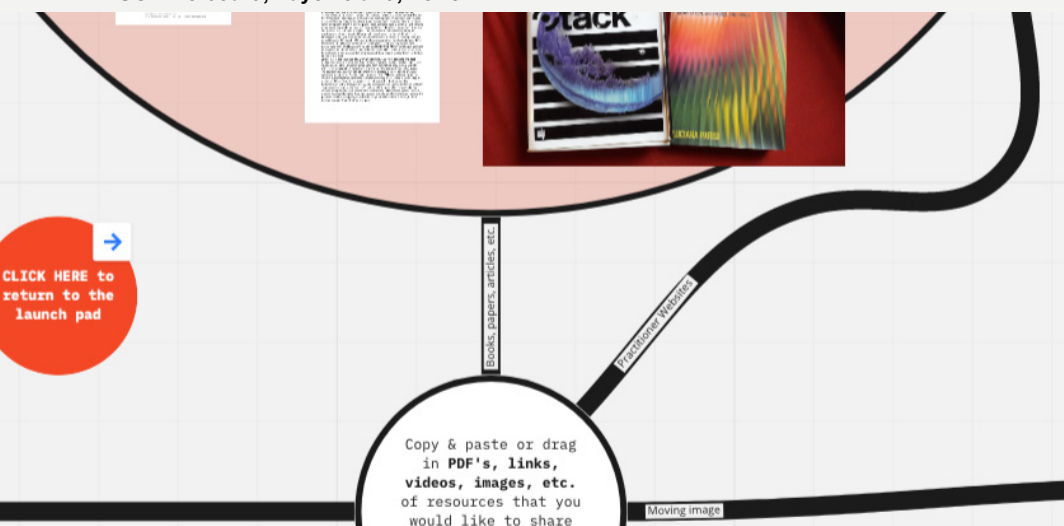
DIS Community and the Hybrid Futures Hackathon

The community-building effort led to the development, testing and implementation of activities that would enable students to:

- share with each other their digital work and ideas
- get feedback from peers, technical staff and academics
- find collaborators and connect with other DIS participants

Because of the constraints of remote work, these activities, such as networking events with students 'meeting' socially, and peer-to-peer sessions, were facilitated through highly curated Miro boards. Of note is the Hybrid Futures Hackathon, the DIS event that successfully galvanized the community.

DISC Miro board, Kaye Toland, 2020



The Hybrid Futures Hackathon

The Hybrid Futures Hackathon was conceived as a platform for community-building, exchange and cross-course learning for UG and PG students engaging with the key themes of the season. The brief asked students to re-imagine **human-machine encounters in the near future** (2050) and to submit their outcome in a short (max 3 min) video.

To amplify as much as possible community-building and exchange across courses, it asked participants to meet two constraints:

- participating teams had to evidence some content accessed during the season
- each team had to contain students of at least 3 different courses

The Hackathon included social/informal networking events; mentoring and feedback sessions with some of the invited speakers from the public programme and experts from the technical workshops; it included talks and presentations by DIS team. As it was delivered entirely remotely, the challenge was how to facilitate the organic and spontaneous process of team-formation and peer work through sustained engagement.

This was addressed by using:

- bespoke Miro boards for facilitated peer-to-peer exchange, brainstorming sessions, vision-building workshops
- carefully curated communication channels (a dedicated DIS fortnight newsletter)

Students used the content provided to mobilize their expertise, locate a shared theme, produce a research question, form teams, and work independently to create their video submission with regular touchpoints with tutors. Produced by international teams working across several subject disciplines, nationalities and time zones, the shortlisted videos were showcased during the public Hybrid Futures Symposium that concluded the season, vividly illustrating, anchoring and counterpointing the symposium debate. The winners were nominated during the Symposium and awarded cash prizes.

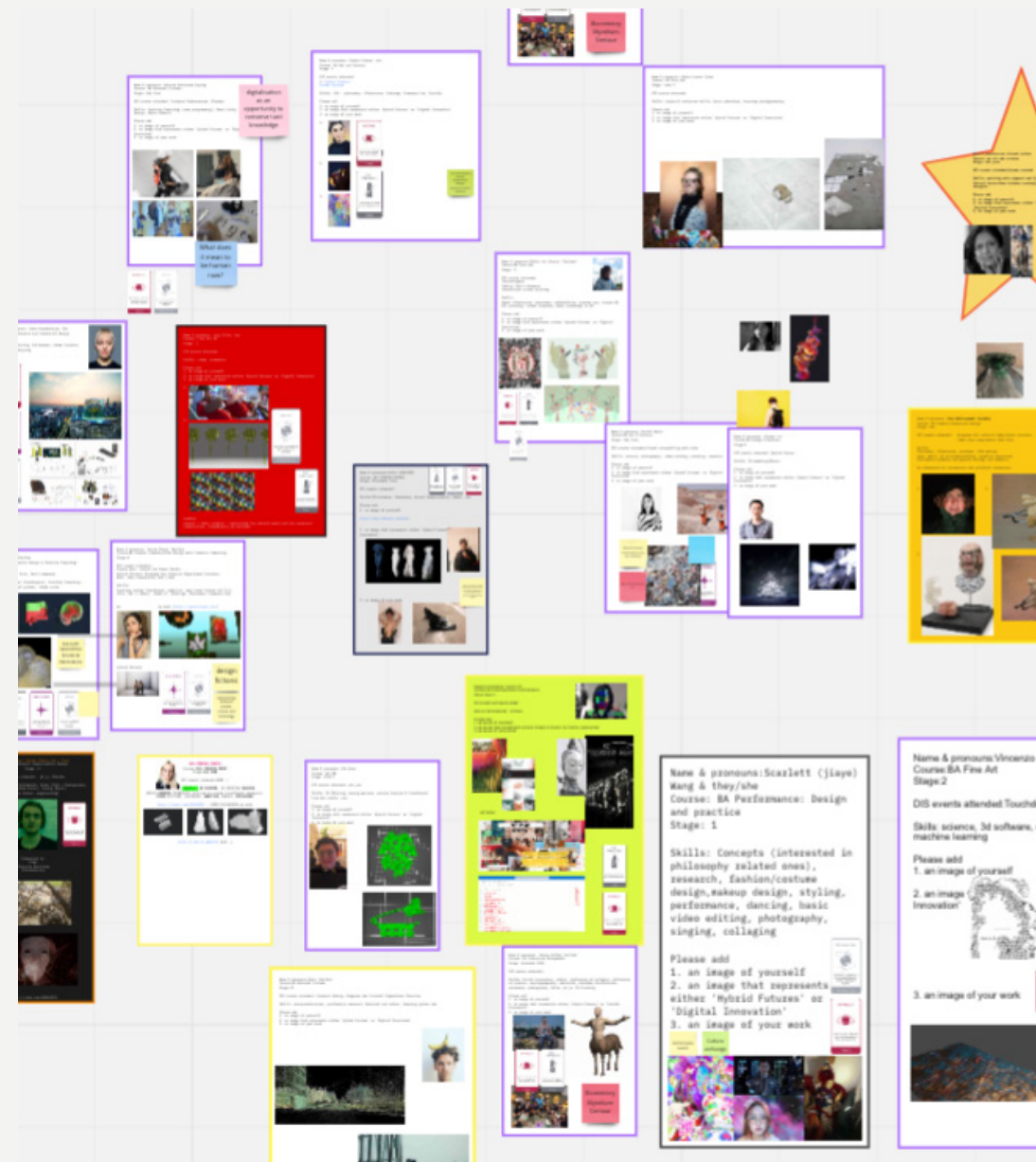
Hybrid Futures Hackathon (December 2020-January 2021)

40 participants: 9 teams, 6 shortlisted; 4 winners

Showcase of shortlisted work: 30 January 2021

All entries can be seen here <https://digitalinnovationseason.com/HF-Hackathon-statements>

DISC Miro board, Kaye Toland, 2020





Many Luksch talk, 2020

The Hybrid Futures Public Programme

The idea behind the public programme – the Hybrid Futures Talks and the Hybrid Futures Symposium - was to offer cutting edge thinking and practice to illuminate the impact of digital technologies through the work of leading thinkers, practitioners and researchers responding to the challenges technologies present today.

The public programme's aim was to create a resonance with the themes of the season, complementing and intersecting the technical skill workshops offered throughout to CSM students, and fostering further their creative response. It also offered a flagship series of guest speakers who showed ways to interrogate technological futures, successfully positioning CSM at the forefront of public engagement on these themes.

One critical element under consideration was how to keep on channelling these cutting-edge discourses back into practice, so that the lively debates would feed back into student propositions within the DIS, namely in the Hackathon, but also hoping to stretch beyond it, in students' further work.

HYBRID FUTURES TALKS (NOVEMBER 2020 - JANUARY 2021)

Dreams Rewired. Taking as a point of departure the montage film *Dreams Rewired* (Luksch, Reinhart, Tode, 2015) and its archival source material, which ranges from newsreels and scientific recordings to the first dramatic works, Luksch's presentation offers a historical perspective on urgent issues in current network and information politics.

Manu Luksch. Artist, film director (UK/Austria). Resident Artist at Somerset House and former Open Society Fellow. Her work is in the Collection Centre Pompidou, the BFI National Archive, and the Core Collection at the Academy of Motion Picture Arts & Sciences.

Vectoral Spring: Diagrams for Critical Algorithmic Practice. In the current regime of algorithmic prediction, the future is being computed in real-time. Design can engage critically with algorithmic prediction using diagrams as a language. Diagrams accurately describe the inner workings of algorithmic processes while also surfacing broader social and political ramifications, all while speaking to the spatial sensibilities/practices of design. This language can be mobilised to dig deep into the algorithmic systems and the rationalities that they support, making them available for excavation, examination, manipulation, and critique.

David Benqué. Designer and researcher (UK/France). His research operates through design practice while borrowing methodology from media archaeology and the digital humanities

Scripted Performances: Or, the Absurd in the Man and the Machine. 'Scripts' in design and architecture are usually associated with computer-based design programming. However, this narrow usage belies a rich vein of concepts intrinsic to design and authorship. This presentation poses the script as a useful critical and methodological tool within design, absorbing and reinterpreting ideas from behavioural psychology, computation, dance, immersive theatre, the Absurd, and the Oulipo.

Ollie Palmer. Artist and designer. Pathway Leader for the Situated Design MA at St Joost School of Art & Design (Netherlands)

Repair and Maintenance as a Form of Innovation. Drawing on a two-year field study, this talk focuses on the practices of the repairers in the ecosystem of smartphone repair stores. How do these individuals come to end up fixing users' devices? How do they learn to handle products that were not designed to be repaired? And what can the mending of a cracked phone display tell us about skill and technological innovation?

Nicolas Nova. Anthropologist of technology active in the field of interaction design, futures research and digital cultures. Co-founder of the Near Future Laboratory and Associate Professor at the HEAD, Geneva School of Arts and Design (Switzerland)

Of Algos, Plants and the Vegetariat. By recognising our common embeddedness within the logic of algorithms, this talk examines the potential of machine learning, AI, and robotics to create compelling new ways of caring for Earth's creatures and habitats. In the Plant-Machine Project an interdisciplinary team of scientists, artists, programmers, and engineers work towards making a machine that thinks itself a plant. What emerges at the nexus of art, computation, and vegetal beings hopefully formulates new possibilities of interspecies relations, therefore recuperating algorithms from the grasp of surveillance capitalism.

Špela Petrič. New media artist with a PhD in biology. Her work combines the natural sciences, wet biomedica practices, performance, and critically examines the limits of anthropocentrism via multi-species endeavours. She envisions artistic experiments that enact strange relations to reveal the ontological and epistemological underpinnings of our (bio)technological societies (Slovenia/Netherlands)

Ollie Palmer talk, 2020



Hybrid Futures Symposium: Re-imagining Human-Machine Encounters

The Hybrid Futures Symposium brought together thinkers, researchers and creative practitioners to address the following questions: What does it mean to be human in a world increasingly populated by and designed for machines? What kind of futures can we imagine in our encounter with the non-humanity of technology? Are machines destined to rule the world beyond our control and capacity? Or can the human-machine encounter be re-imagined as collaboration rather than antagonism? As coevolution rather than hierarchy?

Tobias Rees talk, 2021

what is at stake in this question is not least reinventing:
the human (and nature and machines)
after human exceptionalism.



Maggie Roberts talk, 2021

The Symposium offered ideas on how to imagine and implement politically engaged practices that reflect on and interrogate the role of technologies in the everyday, how spaces of creative resistance and critical response can be envisioned, and **hybrid futures crafted** through practical speculation. It also examined how artists and designers' practice is transformed by technologies, and in the creative, critical and politically situated response artists and designers make through and by the technologies they appropriate and reposition in their work.

Probably: On the Poetics and Politics of AI. The talk considers the tension between the poetics and politics of AI — the anti-humanism of AI on one side, and the idea that AI is a human made tool on the other - and asks what it would mean to invent a politics that grounds in the primacy of the poetic.

Tobias Rees. Reid Hoffman Professor of Humanities, Parsons/The New School New York. Fellow of the Canadian Institute for Advanced Research (CIFAR). Founding Director of the Transformations of the Human program, Berggruen Institute Los Angeles (US)

OctoGANN: creating with an octopoid AI and how that might reconfigure human imagination. Octopus cognition and behavior are studied to develop an art practice that communicates a decentered non-human experience. The talk explores the use of VFX animation, computation and LiDAR and the role of cross disciplinary collaboration.

Maggie Roberts. Artist, part of OrphanDrift a collaborative artist project that has explored the boundaries of machine and human vision since its inception in 1994. (UK/South Africa)

Deep Visual Instruments. Human augmentation through artificial intelligence is shaping this current world and the future one. What are the cultural, social, spiritual, and philosophical intersections that traverse rapidly developing AI technology?

Memo Akten. Computational artist, engineer and computer scientist researcher working with emerging technologies. Assistant Professor of Computational Arts at University of California San Diego (Turkey/US)

Algorithmic Autonomy. Undermining well-worn conceptions about the autonomy of algorithmic technologies, this talk argues that there is nothing autonomous about algorithmic computing. Rather, the belief in technological autonomy prevents us from living with technologies autonomously.

Adam Nocek. Professor of Philosophy of Technology and STS, School of Arts, Media and Engineering, Arizona State University. Director of the Center for Philosophical Technologies, Arizona State University (US)

Tarmac and asphalt with helicopter. UNINVITED is a horror film for machine networks and human-machine organisms. The talk discusses how the film is the outcome of a collaborative algorithmic process devised and enacted between artist, UBERMORGEN and a hallucinating zombie Machine Network.

Nye Thompson. Artist turned programmer turned artist. She creates software systems to explore technology paradigms and underlying power dynamics of the machine gaze (UK)

AI Moral investigation, Hackathon winner, 2021

HYBRID INTELLIGENCE TRIAL ROOM



MOZA

AHIC: 1110-2048-G-AIXXXX

RECOGNITION: PORTUGUESE

D.O.B: 11/10/2048

SOCIAL ROAL: COMPOSER

RUBEN

AHIC: 2008-2035-N-HUXXXX

RECOGNITION: DUTCH

D.O.B: 20/03/2035

SOCIAL ROAL: ARTIST

PIUVIAN

AHIC: 1208-2047-S-AIXXXX

RECOGNITION: ENGLISH

D.O.B: 12/08/2047

SOCIAL ROAL: INS BLOGGER

COLUNBUS

AHIC: 0809-2037-E-AIXXXX

RECOGNITION: JAPANESE

D.O.B: 08/09/2037

SOCIAL ROAL: DRIVER

It is now a fact of life that AI is self-awareness, and that is why we have this debate.

FEEDBACK

Are you a robot? Hackathon winner, 2021



A student survey was launched at the conclusion of the DIS in February 2021. Delivered through the UAL Qualtrics account, it collected a total of 118 responses (113 students, 4 graduates, 1 placement year student).

- Courses most represented among the survey respondents: BA (Hons) Fine Art; BA (Hons) Graphic Communication Design; MA Material Futures; MA Fine Art; BA (Hons) Product and Industrial Design; MA Art and Science
- Almost all students surveyed (over 95%) agree/strongly agree that that they had existing interest in the subject area and wanted to **learn more**, with three quarters specifying the interest to **develop further** a specific technical skill.
- Over three quarters of the respondents agree/strongly agree that **their course did not offer** the kind of session the DIS provided; with almost 60% in total agreeing/strongly agreeing that a reason to attend was to find **help on a specific project** they were working on.


**DIS only confirmed what I knew before:
how much digital technology is neglected
in CSM educational program.**

(Student Participant)

- Almost all students surveyed (over 95%) found the session relevant (44%) or very relevant (45%) to their **development as students and creative practitioners**.
- High number of respondents (84%) agree/strongly agree in seeing themselves **taking forward new skills and ideas** encountered throughout DIS in their wider creative practice, with over three quarters mentioning specifically the **impact on their final and future project**. Similarly, over three quarters felt they **gained in confidence** in their creative practice on how they approach emerging and digital technologies.

**GANS workshop definitely got me hooked
onto the technique, never coded in my life
but I'm trying to learn more about using it
for machine learning for my future projects**

(Student Participant)

Q1. Select all words associated with 



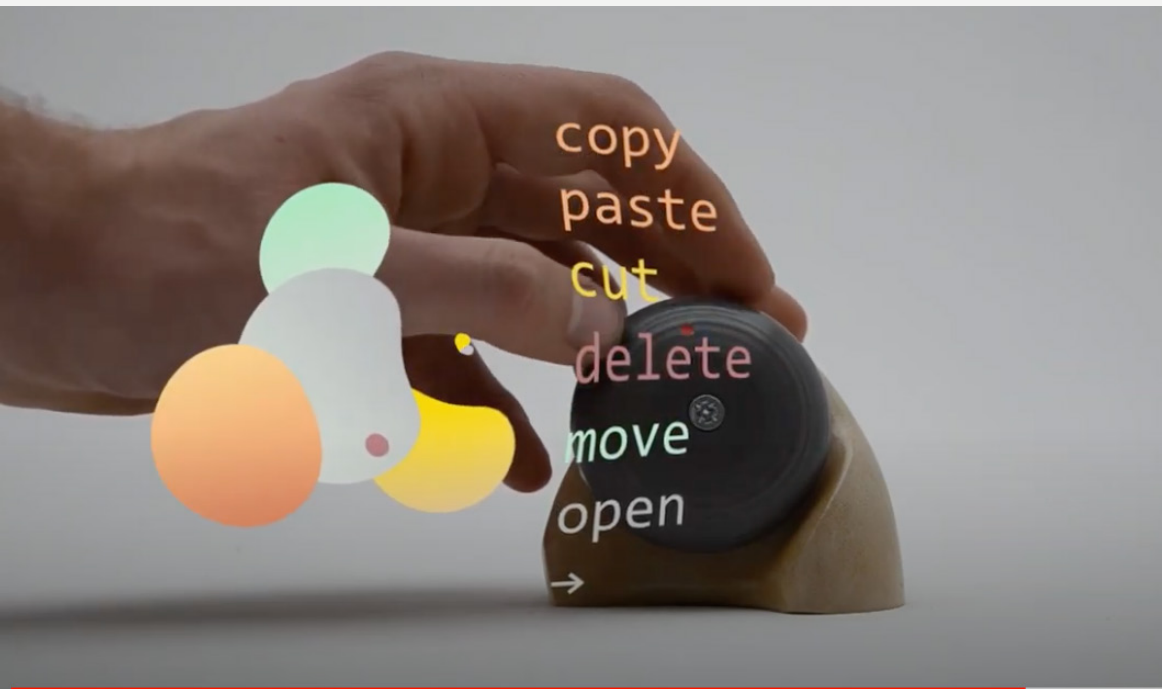
Are you a robot? Hackathon winner, 2021

- There is a robust preference (over 66%) for **hybrid models of delivery**, which were well received because of their higher adaptability with online offers fitting better around existing course demands, and for the opportunity of participating in innovative ways of learning.
- The appetite for **cross-course collaboration** especially for those courses that do not usually interact remains **strong** at multiple levels, with hackathon and competitions, common 'open' space (physical or digital) for sharing work and practice and social areas, the most mentioned. This is also complemented by a very high demand (almost 90%) for **taught activities across courses**, e.g. talks and workshops that enable students from different courses to mix.

Student Focus Group

Insights from the student survey were complemented by a focus group with a small number of students. The aim of this session (facilitated by Betti Marenko and Kaye Toland) was to have in-depth conversation and gain more insight on the impact of the DIS on the students' trajectory, especially in relation to how their participation to DIS (exposure to content, networking, technical up-skilling) might have impacted on their course work and taken them in directions that they might not have explored otherwise.

Jake Kaliszewski, BA Product and Industrial Design, 2021



Christoph Dichmann, MA Art & Science, 2021

Academic Roundtable: What can we learn from the DIS experience?

A roundtable discussion in May 2021 chaired by Betti Marenko gathered members of Academic and Knowledge Exchange staff to get feedback around the impact of the Digital Innovation Season and the Hybrid Futures programme. The aims were:

- to analyse some of the preliminary findings that emerged from the student survey and focus group
- to discuss the delivery models trialled through the DIS
- to pay attention to the response to the findings and implications for Technical Resources, Academic Strategy and Knowledge Exchange
- to shape future recommendations, including specific recommendations for partnership development and approaches to resourcing future work.



Manu Luksch talk, 2020

Key insights from Academic and Student consultation

1. Piloting Transversality. Having provided a feasible format for a hybrid programme, with case studies, examples, and a strong rationale, the DIS should be seen as a pilot on how to build an educational offer that, rather than sitting within specific courses or programmes, succeeds instead in traversing them all. All DIS Activities were designed with a **curious learner** in mind, often introductory, pitched at popularizing positions, perspectives and practices. While in some cases this meant that a session could be too basic for some students, or too challenging for others, the idea was to offer content that could **jump start** a new skill set or a new direction of inquiry.

2. Community of Digital Practice. Community-building, and its success, relied on providing an offer that met students' interest, stimulated their curiosity and afforded unpredictable encounters with ideas and practices outside their expected disciplinary boundaries. Community-building created opportunity for expanding students' network across courses, giving them the possibility to work with peers they would not have been able to meet and, crucially, to learn from each other.

I found it an interesting experience to take

on something I usually wouldn't have

considered

(Student Participant)

The relevance of being exposed to successful practitioners in the 'real' world beyond the filter of education was remarked upon, with facilitators and expert practitioners modelling ways of working and collaborating in highly cross-disciplinary settings. Also, the effort to build a more horizontal model of learning environments – privileging peer-to-peer and community of practice (mentors) rather than a top-down approach (the Master) was evidenced by comments about 'approachable practitioners'. To continue building community the focus must be on careful facilitation of events around which a community of practice can coalesce. Although communities of practice can spontaneously generate around common matters of concern/care, students cannot be tasked with self-sustaining this process.

Challenge: how can a community of practice be not only built but sustained in the longer term, so that it can extend its life beyond a given programme of events, and carry forward the sense of community?

3. Hybrid Model. DIS offered a new medium for learning. The relationship between the in-curriculum and the extra-curricular offer should be seen as **symbiotic** rather than oppositional. While more advanced formats with ambition of integration would need to address questions of assessment and parity, a hybrid model could instead offer learners a way of using portions of extra-curricular content as part of the awarded component of their course. Within

a hybrid model, diverse components - taught skill-based elements (e.g. facilitated workshops), peer-driven activities (e.g. Hackathon) and guest talks (e.g. public programme) – can combine in an offer that uses the **course structure as a base to grow from**, empowering students and amplifying their agency. With a wide range of options to choose from in the DIS, students enjoyed the freedom to **pick and mix** content according to their own needs, interests, passion, and curiosity. Considering how students have shown ways of using the DIS content to re-orient their ongoing course-work, and to nurture their self-directed projects, the hybrid model can be seen as a ‘modular’, tailored to privilege the learner’s agenda in driving fruition while incentivizing self-learning exploration.

Challenge: While the external element is vital in igniting learners’ interest, how to organically embed extra-curricular material? How to meet demand for popular optional activities? How to ensure parity of experience, fair access, and feasible plans for scalability in the longer-term?

An approach would be to allocate ‘free blocks’ of space and time within the existing structure. These ‘containers’ could be populated by students designing their own learning journeys through encounters with, and discovery of, ‘extra-fuel’ content provided by a careful curation of activities responding in real-time to current themes and issues – e.g. climate emergency, new technologies, placemaking, social equality etc. – also in line with the recently discussed Lenses. Existing examples of ‘container’ Units exist

e.g. BAPID Client Project Unit (U11, Stage 3, 60 credits) and there is scope of creating specific inter-program ‘containers’ or ‘mean-while’ spaces towards collaborative inquiry and co-designed research outputs.

**The future of education needs more
cooperation**

(Student Participant)

Hybrid Futures Symposium, 2021





What's in that drawer? Hackathon winner, 2021

4.Currency. Currency is crucial. DIS content was recognised as excellent because of its currency. All the practitioners involved were selected because their work, at the forefront of their field, problematizes urgent issues through cutting-edge interventions. As such, they offered a powerful frame for learners to problematize their own work. **DIS “bumped up the level of the discussion”** and created impact in participants’ own projects, in some cases prompting students to “rethink their practice”.

I found the talk about repair [Nicolas Nova, Hybrid Futures talks really interesting as it allowed me to think in a new way about something which I would have otherwise thought to be simple.

(Student Participant)

FUTURE

Maggie Roberts talk, 2021



Technical up-skilling. The level of cross-college demand shows the need for more opportunities for the curious learner to opt-in to learn specific technical skillsets around emerging and new technologies, enriching and enhancing the learning environment with a sense of **choice** and participation responsive to developing creative digital practices. A more explicit pipeline could also be created between extra-curricular digital learning and formal UAL qualifications, for example towards the Graduate Diploma in Creative Computing.

Community building. The DIS shows the need to take a more deliberate approach to community building around thematic clusters, in this instance around technology and hybrid futures. There are specific ways in which this could be encouraged, including:

- Facilitating more cross-course activities by supporting the creation of **student-led clusters** for exchange, collaboration and sharing practice
- Creating more opportunities to showcase work to external practitioners and audiences
- Providing spaces for students to share knowledge and show work in more informal settings, for example 'show and tell' and dialogic spaces (rather than crits)
- Involving students (and alumni) in co-designing the next it-

eration of the DIS, championing and hosting part of the new programme

- Promoting clusters of affinities around existing expertise and driven by student interest (examples suggested by students include robotics, design ethics, bio-design, even astronomy), while building professional experience for CV, strengthening confidence and gain experience in working in 'real life' settings

Cultivating Critique: a Co-Designed Lexicon. DIS provided the context for framing practitioners' work through the lens of critical thinking. While creativity is expected among students, critical thinking is not always made explicit. To ensure that misunderstanding and bias are recognised and addressed – especially when it comes to in-built expectations - it becomes important to foreground, cultivate and discuss critical thinking. An approach would be through the co-creation of a shared Co-Designed Lexicon for **Critical Technology Literacy**. Originated with creative practice learners in mind, and co-designed by them, regardless of their disciplinary fields, this can become a common lexicon of criticality to be shared, discussed, negotiated and contested collectively. These kinds of discussions on how creative practice is transformed by a critical engagement with technologies should be prioritized, to continue **disrupting established expectations around received knowledge** – in particular around the use of technology.

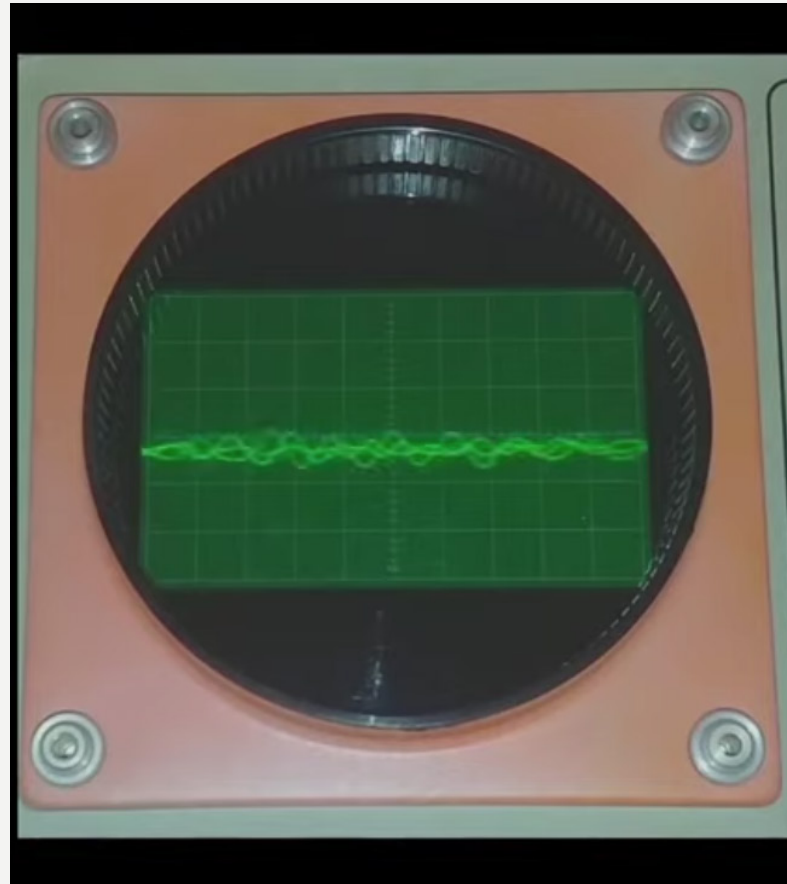


Nicolas Nova talk, 2021

Media agnosticism. Opportunities should be explored for learners to be more 'media agnostic' in their outputs, and by incentivizing the hybrid use of a wider range of tools (digital and analogue, hardware and software etc) to produce and deliver their project outcomes. This would align better with a hybrid format of education and with the boundary crossing possibility it both affords and requires, while improving graduate employability

Interfacing the world. Opportunities should be explored to enable students to be more involved in R&D processes where they are starting to develop digital projects that can be showcased to external partners for potential buy in. This could potentially **attract corporate or institutional funding** to CSM in digital/emergent fields. An approach would be to ensure that communities of practice such as the DIS can interface with spaces and sectors outside the college e.g. through exhibitions, external showcases, pop-ups and online channels.

Rethinking curricula. There is an opportunity to learn from the DIS on how we rethink and update the credit framework so that it is **fit to the challenges of future education**. A reflection on future pedagogy points to the need to fundamentally redesign the curricula structure, as well as changing attitude toward assessment. We should be aiming at allowing learners to embed external content and self-directed knowledge more easily into their course.



Our world wide web entangles the planet, creating beautiful network communities that share resources and help each other thrive. We can help you too if you just listen. Listen carefully█

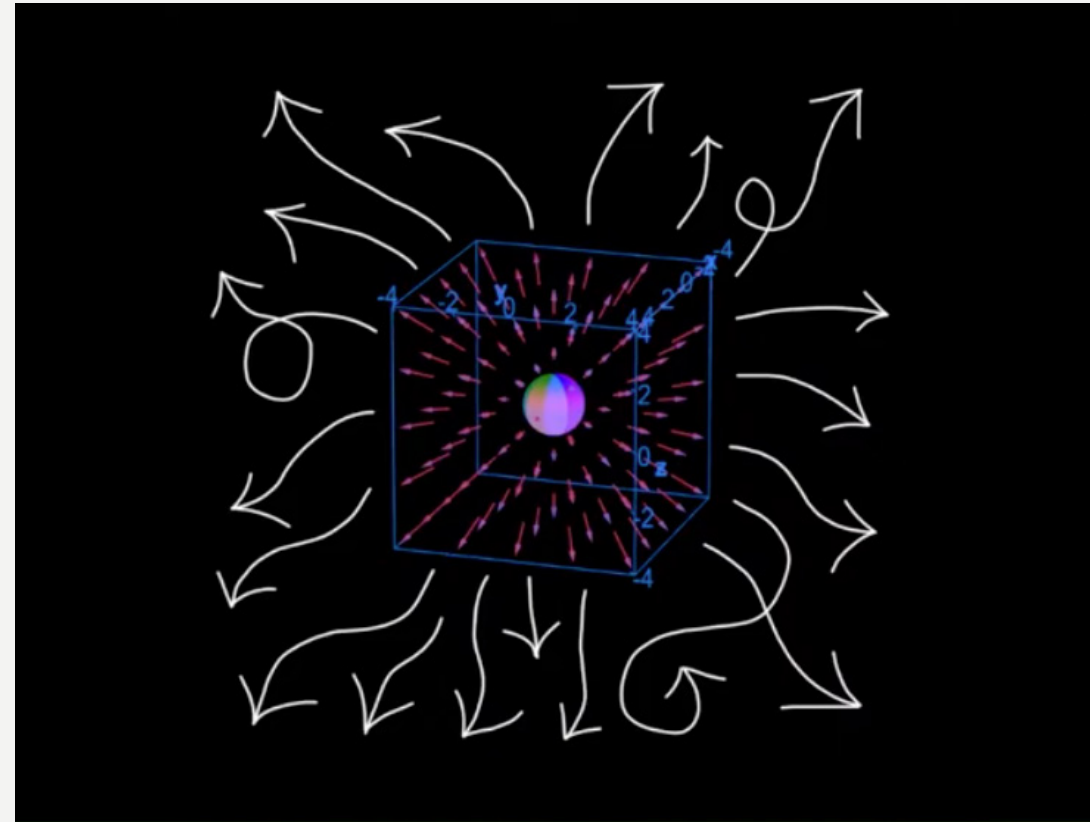
FungOS, Hackathon, 2021

DIS shows that new skills not found in accredited coursework can be inserted in a **virtuous** loop with an existing assignment and by building complementarity with them. More broadly, we should be working toward breaking the barriers that still separate academic staff and technical staff - a distinction that has been thrown in a **fruitful confusion** by the DIS hybrid mode where the philosophical and ontological questioning on the subject of technology was fully imbricated with the technical skilling. This involves a questioning of the Enlightenment legacy of the University as education model. DIS-type activities are **critical to CSM's role** and the creative production taking place. They show what is possible by working with a different model: hybrid, collaborative, transversal, current.

How to achieve the above recommendations: some ideas

The college should consider investing in and resourcing a next iteration of the DIS. Resources should be made available to:

- Define DIS/HF 'Container' and sketch key entry criteria e.g. expressions of interest from students
- Consult on what a Liminal ('Meanwhile') learning space may look like
- Involve CSM Research and ERCs/PhD around digital/material practices
- Pitch for partnership development
- Expand public programme to include remote learning opportunities with
 - Local schools/academies
 - Global HE/other Institutions for partnerships/collaborations
 - Third sector



David Benqué talk, 2020

In relation to future partnership development, this proposal will ensure that the college is giving the suitable amount of time and resources to build on such a major initiative, and to explore internally how Central Saint Martins should best move forward with exploiting the emergent opportunities around this field of work. The intention is that this period of consolidation will lead to a number of substantial pitches and conversations.

DIS Project Team

The project team at Central Saint Martins for the delivery of the Digital Innovation Season:

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Betti Marenko (Hybrid Futures Curator & Reader in Design and Techno-Digital Futures)

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Digital Innovation Season

