Human-Machine Interdependance

Thought Experiment 3: World 3

DRIVERS:
Automation
Human-Machine Hybridity
Personal Missions
Leisure

IN THIS WORLD...

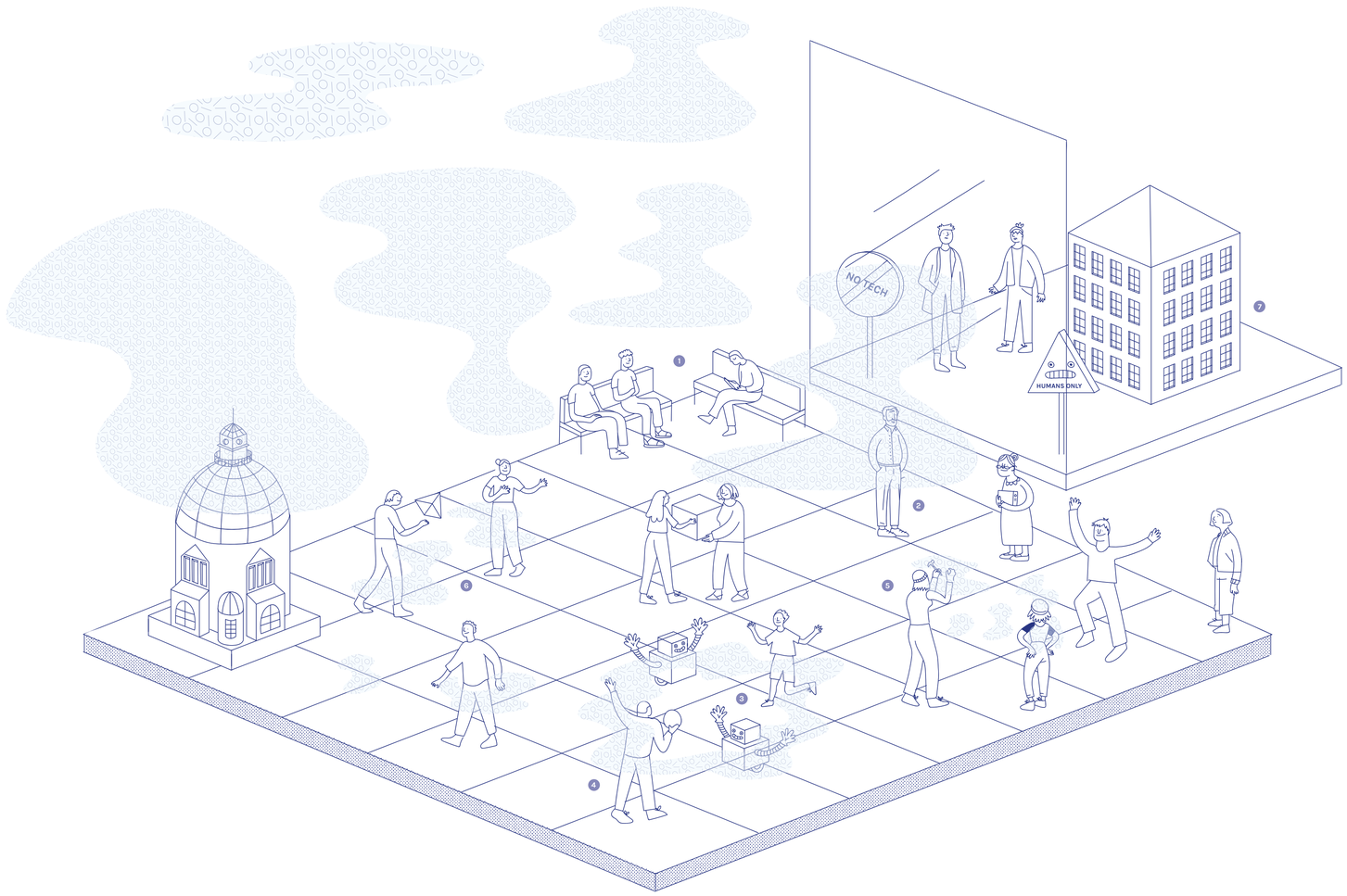
Automation has replaced much human work, resulting in growing demand for education focused on personal creativity, criticality and problem solving. Relations between humans and automated agents have become defined by co-dependence, with effortless access to the world's information and relative freedom from work celebrated alongside a new valuing of the social and creative capacities of humans.

Easy access to information, and the automated synthesis of large, complex bodies of knowledge, have created a shift in education away from fixed curricula toward 'experience', with the most successful universities offering rich, time-intensive, student-led pathways extendable over the entire life course. Depth of scholarship and learning built and applied through life become more important than accreditation, qualifications and employability. Assessment is minimal as students are motivated primarily by developing their personal capacity to fulfil missions and address intractable problems in loose collaboration with intense, digitally-maintained personal networks.

Discipline boundaries have largely disappeared as STEM and social science converges with the creative arts and humanities. Teaching is conducted for the most part by highly-effective, empathic automated agents, with access to human 'navigators' a premium model offered only by the most expensive universities.

THIS FUTURE, THIS UNIVERSITY

Time rich
Experience driven
Personal missions
Postdisciplinary
Troubled
Posthuman
Lifelong provision
Challenged by ennui
Non-hierarchical



OUR VALUES IN THIS WORLD...

VALUE 1, EXPERIENCE OVER ASSESSMENT

- Open learning paths and unlimited time for study emphasise the importance to students of a quality experience, but maintaining student motivation and sense of direction is a key issue for universities. Ennui has become a common feature of the human condition.

VALUE 2, DIVERSITY AND INCLUSION

- Openness does not necessarily imply inclusion. Working with and for diversity is hard work and many are critical of the tendency of institutions to delegate it to automated recommender and matchmaking systems.
- Human-machine hybridity is so accepted in this world that those who are excluded - for self-determined ideological or societally-determined economic reasons - experience massively exaggerated inequality. This is challenging for institutions to address.

VALUE 3, RELATIONSHIPS OVER INSTRUCTION

- Gaining basic knowledge through instruction is considered archaic in this world, though some continue to see mentor and apprentice interaction as a necessary grounding for meaningful, impactful human work.
- The reduction of hierarchy enables exchange and learning to flow in multiple directions.

VALUE 4, PARTICIPATION AND TRANSPARENCY

- Societal aspirations for meaningful transparency have disappeared as massively complex hybrid systems maintain social order: transparency is no longer considered a positive term.
- Participatory, co-produced curricula and learning pathways are the norm across all sectors and levels of education.

THIS FUTURE EXPANDED...

1. THE POST WORK WORLD

- With automation reducing much of the time humans commit to work, education has expanded to become a life project focused on creativity, self-development and understanding what it means to be human.

2. WHAT IT MEANS TO BE HUMAN

- While machines keep the world going, there is greater emphasis in education on maintaining the human capacity to manage the boundaries between themselves and machines. The interests of human wellbeing are prioritised.
- Teaching has an increased focus on human interpretation of data, the ethical governance of AI, and how advanced, intelligent technologies work with humans to make sense of the world.
- Higher education is focused on collaborative and creative responses to challenges and questions raised by blurred human-machine boundaries.

3. TEACHING AND LEARNING CONVERGE

- Students and mentors create learning experiences together: mentors are not necessarily human.
- Academic hierarchies reduce as mentors are seen as peers and roles are continuously exchanged. Humans and agents teach and learn together.

4. COMPETENCY AND EXPERTISE

- Competency in a field is no longer associated with the accumulation of knowledge, since machines now manage this much more efficiently. Instead, it is evidenced by the ability to synthesise, theorise and apply knowledge through experience and research-focused courses and portfolios.
- Matchmaking algorithms help build collectives of shared interest by bringing together people with different types of expertise.
- Meanwhile, bespoke 'cocktail-style' learning paths are argued by some to threaten the existence of expertise and specialisms altogether.

5. LEARNING THROUGH FAILURE

- There is no more assessment in its traditional form. Credit is given to those who complete content and reflect on what they have done.
- Without formal assessment milestones, and with learning no longer time-contained by traditional programmes, confidence grows and failure is recognised as an opportunity to learn from experimentation, trial and error.

6. TRANSPARENCY

- With data and code keeping society running, transparency becomes re-defined as the human capacity to understand how artificial agents are built and put to work.
- Humans are educated accordingly, but within a recognition that the complexity of intelligent systems is beyond the capacity of individual or collective humanity to fully understand or control.

7. OFF-GRID COUNTER CULTURE

- Human-machine interdependence drives a backlash among some groups resistant to hybridity: strong off-grid countercultures emerge.
- Some universities define themselves as 'human only' spaces from which a platform for critique of the dominant collective mindset is made possible.