Panel 3: The future of work

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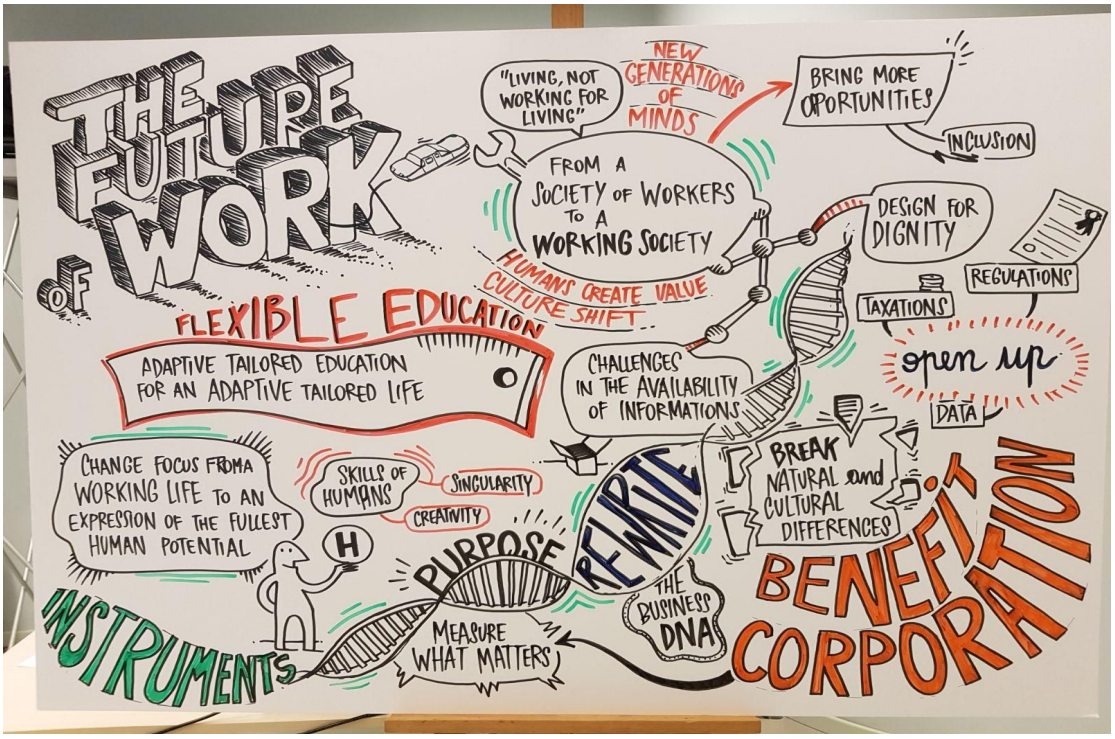
The panel has worked in two phases, applying a backcasting approach: - One: the innovators were invited to share and converge on a Vision of the desirable future we want to create, in which AI, Big Data and technology enable a shared and durable prosperity in our society.
Two: they then prioritized the key actions to bridge the gap between the Vision and the present reality. Ideas and actions focused mainly on learning, education, work, and other interdependent factors.

VISION



Education and learning

1. Building an **adaptive, tailored education and learning approaches** for an adaptive, tailored life: learn more about the learner and adapt to her need.
2. The education system needs to focus on skills and competences and not so much on careers, to help **navigate uncertainty.**
3. We **educate for the world not as it was** but as it is and, most importantly, **as it will be.**

Work

4. **From a society of workers to a working society**: the technological revolution has the potential to **transform us from consumers into creators,** thus enhancing typically human qualities such as creativity, compassion and empathy
5. Innovation provides new opportunities for more people to experience the **dignity of work**. The more disadvantaged people will be embraced and included.
6. Fostering **new business paradigms and Benefit Corporations** which embed positive impact purpose and human development in their DNA.
7. Measure what matters: **Data and AI help quantify social impact and contribution to a common good,** for both individuals and businesses

ACTIONS

Actions concerning education and learning:

1. It is necessary to innovate the paradigm with which subjects are thought throughout school and university: t**eaching STEAM (A for Arts) and critical thinking, not just STEM (Science, Tech, Engineering, Math).** Art and science need to be synthesized

together, also by showing the value in learning and merging diverse fields. Governments should reorder teaching priorities taking this into account.

2. Governments should encourage social media competence development: **open (don't block!) social media in schools.** It is important to encourage pupils to use technology as part of education, entrepreneurship, design, attention- building, non-linear thinking..

3. **To understand education and work better we need good data: this can be achieved by measuring generic skills (e.g.: every day problems, finding solutions by collecting data from different sources) of humans**, offering feedback and training them (individualistic learning) in what they need to improve on so they can create a skills portfolio of sorts. Needs technological structure, could have AI helping, need something that can measure and evaluate someone's skills and tell them what skills they will need more for what they want to do.

4. **Improve the offer of education so that it becomes accessible for all** also by adopting innovative teaching methods possibly including **VR, MOOC's or in general eLearning platforms**, social networks and websites, implanted microchips.

5. Have government **policy that promotes entrepreneurship** and an educational policy that teaches entrepreneurship. This will change the whole culture of education, and remove the stigma around failure (=experience).

Actions concerning infrastructures, ethics, policies

6. **An ethical framework for digital technology, data science, machine learning, artificial intelligence** – developing similar structures as for medical research – that is the 'data' equivalent of the Nuffield Council for Bio-ethics.

7. **Open up platforms** – APIs (companies as API not just government), distributed ledger technologies – put pressure on them to release data (so that policy-makers can plan for future, as well as for social protection) – within an ethically secure

framework**. Legislate for transparency**, as with Facebook and political advertising.

8. **More fine grained ideas about employment/non employment – some kind of sliding scale,** not binary (welfare systems often designed on the binary notion of employment).

9. **Boost new, purpose driven business paradigms, and Benefit Corporations**, which measure their real impacts and innovate to create social and environmental value, focus on creating meaningful work, foster lifelong learning, and advance Sustainability.

10. **Governments promote Corporate Responsibility on Continual training of workers,** based on the non-binary definition of the employer-employee relationship.

11. **Promoting government innovation,** ensuring that it is a leader of other sectors (as has been in previous technological eras). Make it easier for government to work with small companies.

12. **Focus on traditional industries as well**. Build digital skills into traditional work patterns. Make it easier for big firms to work with start-ups – building in ambidexterity.

13. International cooperation: **Building learning networks that share experiments and best practice.** Measuring effectiveness and producing standard, agreed definitions. Funding models that can scale.

14. **Identify 'pilot nations' that candidate themselves as pioneer in implementing specific solutions** about how to bridge the gap between vision and desired future. They choose a focus/solutions they commit to work on, and share the results.

15. **Redefining the narrative of "work": Measures of social value created by each individual, or group, beyond the distinction employment/unemployment.**

16. **Ensure infrastructure development** that enables people to participate - including digital infrastructure, so that economic activity and contributions can take place anywhere.

17. Develop policies which assure the **functionality of competition mechanisms, and prevent the development of new monopolies based on technology.**