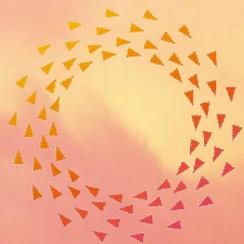


Peer-to-peer work in the digital meaning society 2050

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WP1 Neo-Carbon Enabling Neo-Growth Society – Transformative Energy Futures 2050

7th Research Seminar of Neo-Carbon Energy Project
Lappeenranta, 24-25th January 2017



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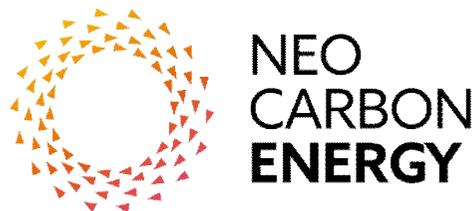
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ORIGINAL ARTICLE

Peer-to-peer work in the digital meaning society 2050

Juho Ruotsalainen¹ · Sirkka Heinonen¹  · Joni Karjalainen¹ · Marjukka Parkkinen¹

Ruotsalainen, J. & Heinonen, S. & Karjalainen, J. & Parkkinen, M. (2016). Peer-to-peer work in the digital meaning society 2050. *European Journal of Futures Research*, 4:10, DOI 10.1007/s40309-016-0092-2

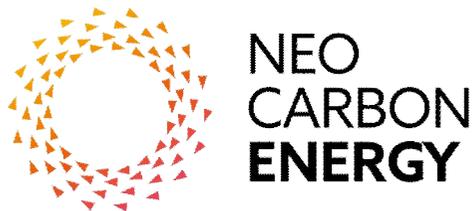


Introduction

The purpose of the article was to

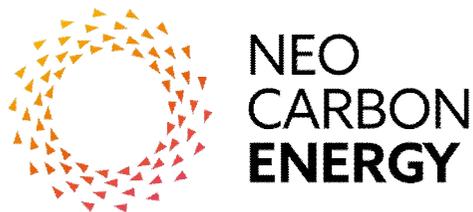
- 1) Anticipate the future of work in a neo-carbon powered society
- 2) Place the neo-carbon energy system in a wider societal and technological context (robotization, lifestyles etc.)

These were done by categorising and analysing the results of the second NC Futures Clinique "The Fuzzy Futures of Neo-Carbon Work" held in April 2016.



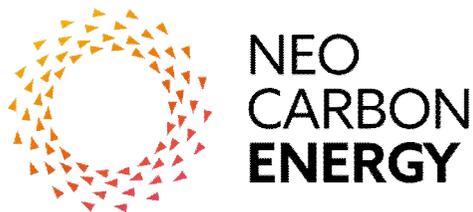
Introduction

- From a societal perspective, the most radical consequence of the renewable energy transition may be the plummeting marginal costs of energy.
- The marginal costs of information have been close to zero for a while already.
- As physical production is being automated, the marginal costs of physical products are also decreasing.
- Together, these developments will have radical impacts on practically every sphere of society.



Introduction

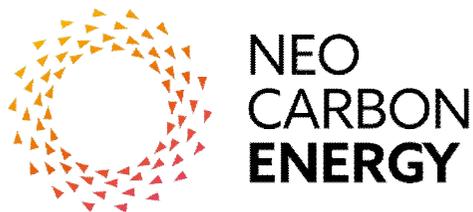
- These developments imply a future of abundance instead of scarcity.
- This may lead to an upheaval in markets, price mechanisms, and organisation models, which are based on the assumption of scarcity.
- We may be entering an automated “post-work” society, where nonmarket, collaborative models of organisation replace traditional organisations.



Introduction

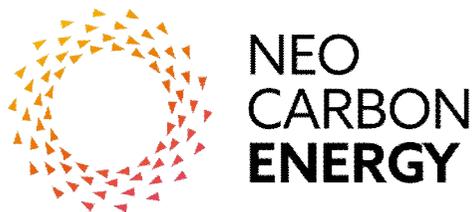
In other words, work or paid labour as we know them today may end by 2050. Something else is needed in their stead.

Peer-to-peer production models could be one answer.



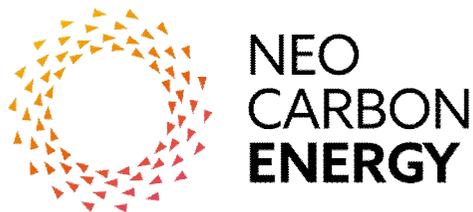
Peer-to-peer work

- Brynjolfsson and McAfee see peer-to-peer production as a promising possibility in opening new economic opportunities and giving people something meaningful to do in an automated future.
- Peer-to-peer production can be defined as a distributed network equal partners and their free participation – self-organisation instead of hierarchies.
- Instead of money the key motivator is “inner motivation”. Resources and products are shared – as Wikipedia-like Commons.



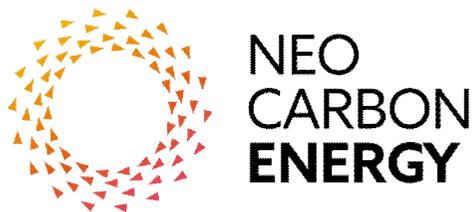
Results

- The article analysed the results of the second NC futures clinique, which was held to probe the futures of work in a 2050 world of automation and distributed, low-cost renewable energy.
- Workshop participants were divided into five groups according to the four societal NC scenarios. What would the future of work look like in their scenario?
- In the analysis phase, the FC results were classified into seven categories.



1. Hybrid Companies – Work as a place for creativity and self-development

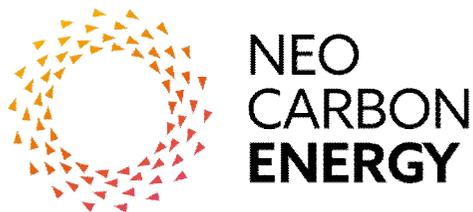
- **The function of human work is to offer a place for workers' self-expression. Work is meaningful, creative, and purposeful – products are “authentic” expressions of workers' individuality.**
- **No sharp division between work and leisure exists.**
- **Also enterprises pursue other goals than profits only, and provide society different kinds of immaterial value. Businesses are concentrations of intellectual and social capital, rather than the profit-maximising entities of today.**



-> Hybridity: work merging with leisure, companies having other than economic purposes only

2. Intimacy Economy – Work and communities

- **Organisations are replaced by self-governing communities. Customers are also part of the community, and work is mutual co-creation between workers and customers.**
- **Belonging to a “company community” might even be one’s right as a citizen – you are born into, for instance, a community-like start-up.**
- **Artificial intelligences could aid in establishing communities – for instance, a platform that connects individuals with the same interest, tastes, goals etc. with each other.**

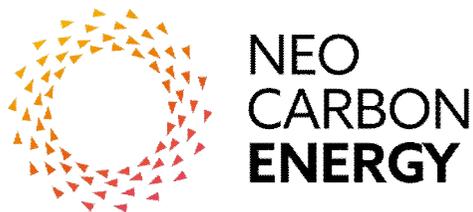


-> workplaces become much more “intimate” than today: relationships are personal rather than occupational or professional

3. Tribes of Meaning – Communities and identity

- **Different communities, and work done in these communities, could provide individuals with a sense of belonging, meaning and purpose.**
- **In a desirable future communities are open and tolerant. However, the longing for stability could lead to “bubbles” in which individuals socialise only with the like-minded and shut the rest of the world outside, possibly leading to intolerance.**

-> Communities allow individuals to be part of something bigger than themselves, increasing the sense of meaningfulness.



4. Condition of Hybridity – Networked work

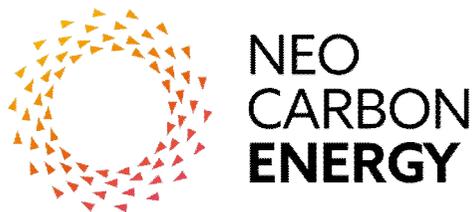
- **If communities were the basic units of new work, the general organisation model for work could be provided by networks.**
- **“Organisations” would refer to organic, porous network structures, and different communities would be linked together by interlocking networks.**
- **Resources would be shared within networks: workspaces, tools, information, et cetera.**
- **Glocal (global and local) networks could mitigate the sectarian tendencies of close-knit communities by making communities and collaboration more diverse.**



-> Hybridity: networks merge different values, individuals, worldviews, practices etc. together

5. Age of Empathy – Networks, sharing, and the common good

- **A world of efficient production and material abundance would create a fertile ground for altruism and sharing.**
- **Doing good and working for others could be an alternative to paid labour as a source of meaningful activities.**
- **Money and other resources might be partly seen as possessions of the network instead of private property.**
- **Growth could be redefined as sharing and spreading of economic, social and cultural capital instead of their private accumulation.**



-> networks encourage collaboration and thus also empathy

6. The Robot Revolution Succeeded by the Human Revolution – The rise of humaneness

- **Although society would be thoroughly technologized, technology would be integrated seamlessly into environment so that it would be discreet and mostly invisible.**
- **Technology would become more independent so that it would work in the background without a need for human intervention.**
- **This would free people to interact with each other instead of machines. Due to automation, humans would be freed to use and develop their human skills.**
- **Furthermore, due to the development of artificial intelligence, technology would transform as less mechanistic and more human-**



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-> A society of high-technology could also be deeply human

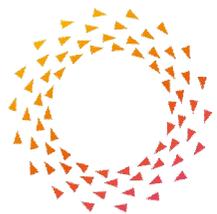
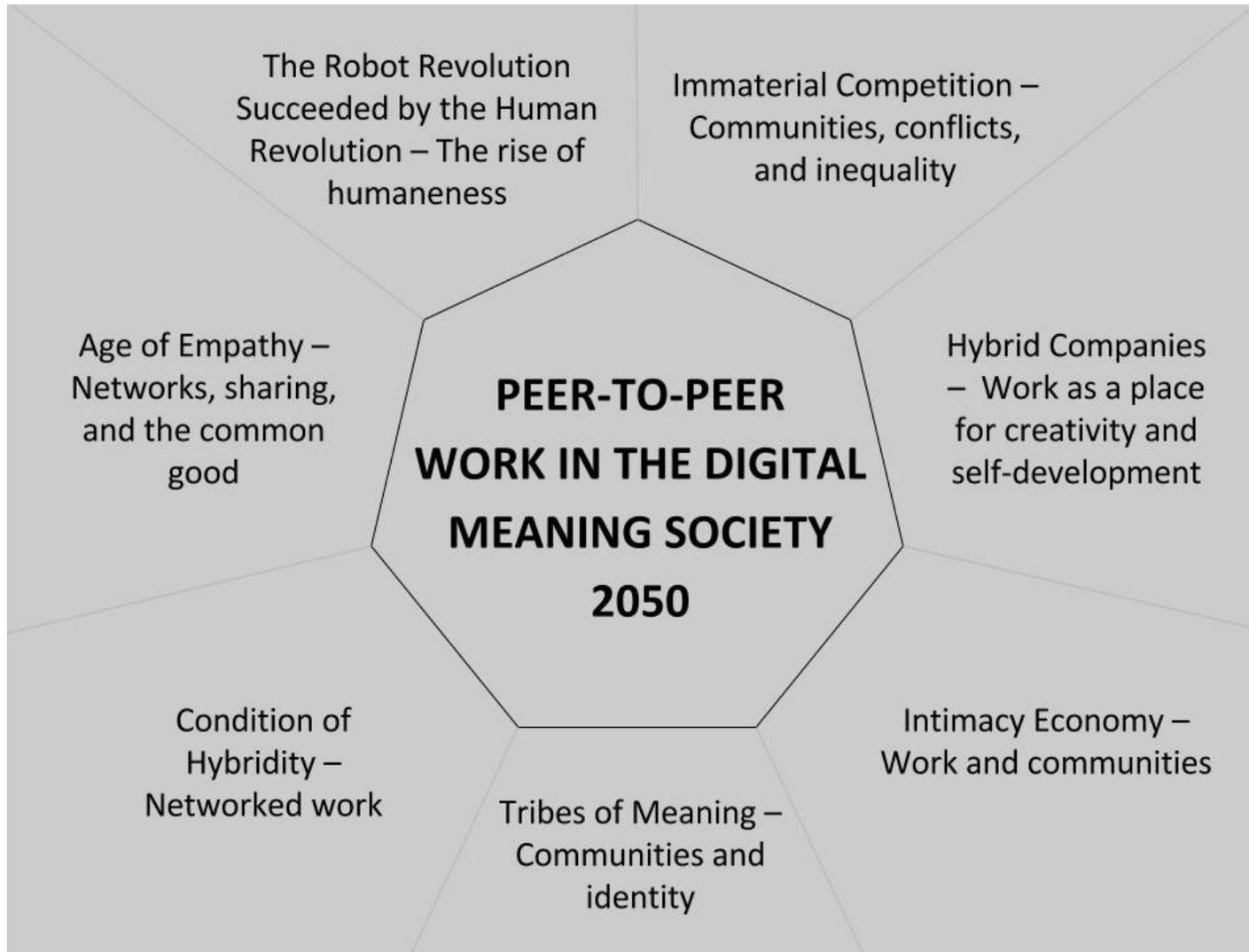
7. Immaterial Competition – Communities, conflicts, and inequality

- **The emerging automated peer-to-peer future would probably have its own social problems and inequalities.**
- **The communities one belongs to define his/her social position.**
- **Tribes may erode the role of “traditional” institutions, such as the judicial system, the media and different expert systems. Each community could have their own notions, knowledge, and morals.**
- **In a world of abundance, competition on economic status might become meaningless. Instead, people would compete on social and cultural capital. Those with the most refined taste and best social relations would be the new elite.**



-> Immaterial values could place people in unequal positions.

Conclusion



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Thank You!



NEO-CARBON ENERGY project is one of the Tekes strategic research openings and the project is carried out in cooperation with Technical Research Centre of Finland VTT Ltd, Lappeenranta University of Technology LUT and University of Turku, Finland Futures Research Centre FFRC.