



Design

Co-Emerging Futures

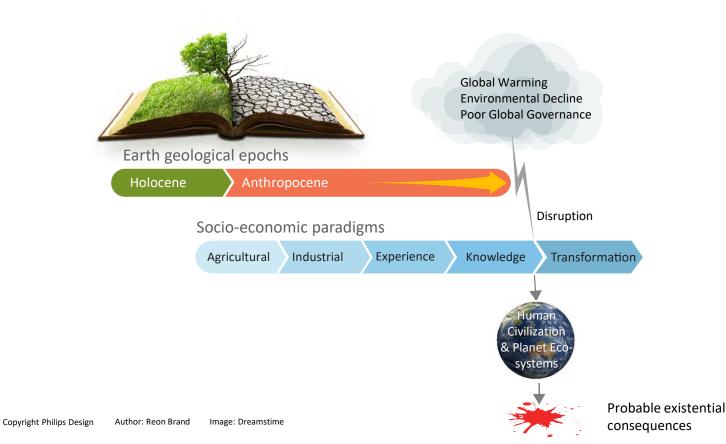
Reon Brand

Philips Experience Design NELL On-line Symposium 27 November 2020

- Reflecting on future change
- Implications for future health
- Digital health innovation



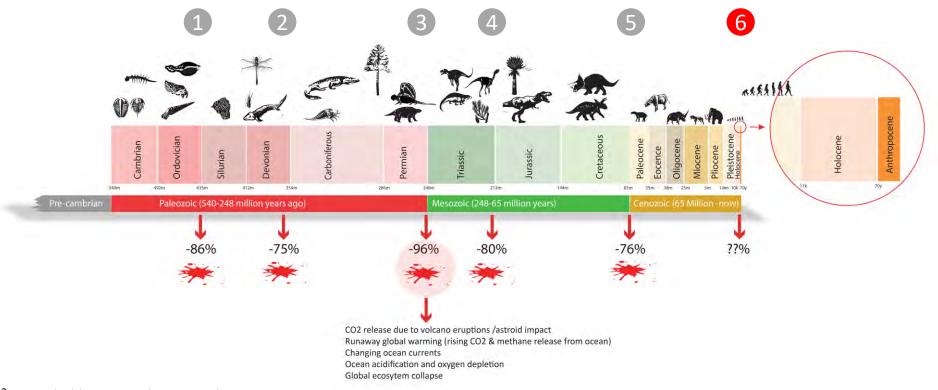
The path of socio-economic progress of humanity



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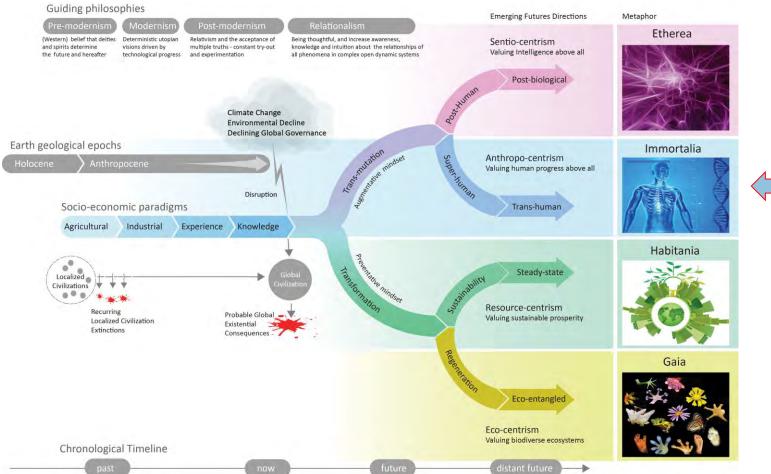


We have entered the 6th major extinction event



Co-Emerging Futures

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Immortalia

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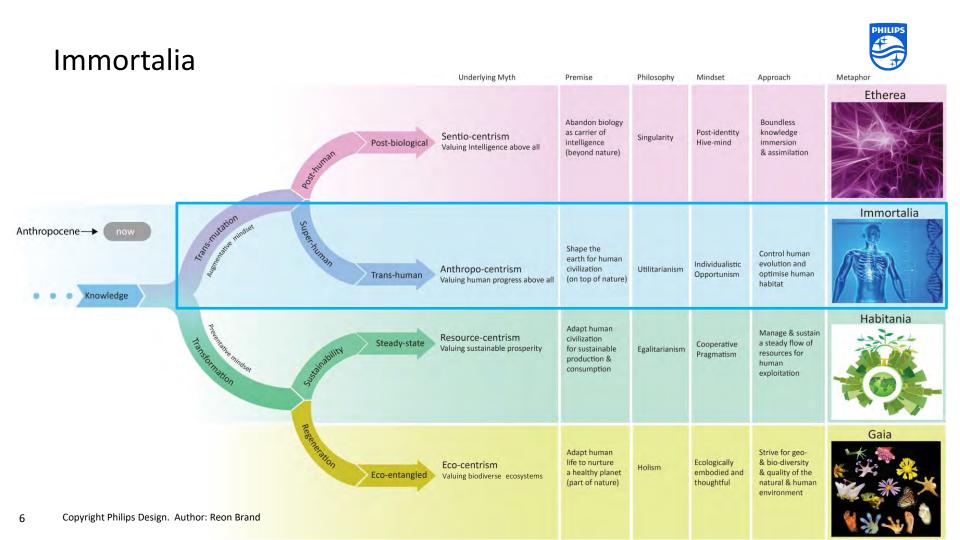
The quest to transcend *Homo sapiens* through technological progress

17 88

18 55

28 3

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Immortalia: the 4th Industrial Revolution

Convergence of

- Nanotechnology
- Biotechnology
- Hyper-connected Internet of things
- Artificial Intelligence & Robotics
- Advanced manufacturing
- Automation of everything

Increasing reliance on technology

Towards transhumanism



Cognitive computing



Mind-controlled prosthetics or machines

Biotechnology



Stem cells and organ bioprinting



Modifying human genes



Hybrid AI/Brains (neuro-economy)



Digital-to-biological conversion

Immortalia – potential digital enablers for health





Health strategy (for the wealthy): "The body as an ever-improving machine"

Examples:

- Personalized health optimization based on genome and epigenetic analytics
- AI & biologicals-supported **longevity** enhancement
- Al-enhanced cognitive function and mental health (e.g. Neuralink subscription)

Etherea

Towards boundless intelligence and postbiological immortality



Etherea Underlying Myth Premise Philosophy Mindset Approach Metaphor Etherea Abandon biology Boundless knowledge as carrier of Post-identity Sentio-centrism Singularity Post-biological intelligence Hive-mind immersion Valuing Intelligence above all 205 Human (beyond nature) & assimilation Immortalia 485 mulation super-numan mindset Anthropocenein the strange Shape the Control human earth for human evolution and Individualistic Anthropo-centrism civilization Utilitarianism 4. Opportunism optimise human Trans-human Valuing human progress above all (on top of nature) habitat Knowledge 0 Habitania preventative mindset Adapt human Transformation Manage & sustain Resource-centrism civilization a steady flow of Steady-state Sistarability Cooperative Valuing sustainable prosperity for sustainable Egalitarianism resources for Pragmatism production & human consumption exploitation Regeneration Gaia Strive for geo-Adapt human life to nurture Ecologically & bio-diversity Eco-centrism Holism a healthy planet embodied and & quality of the **Eco-entangled** Valuing biodiverse ecosystems natural & human (part of nature) thoughtful environment

Enablers of Etherea



Artificial General Intelligence

Ilya Sutskever Co-Founder & Director OpenAl

AI FRONTIERS CONFERENCE 2018

AGI will develop and learn unsupervised and set own goals (10 years away)

Substrate-Independent Mind



- The EU Human Brain Project
- The Brain Initiative (US)

Etherea – potential digital enablers for health





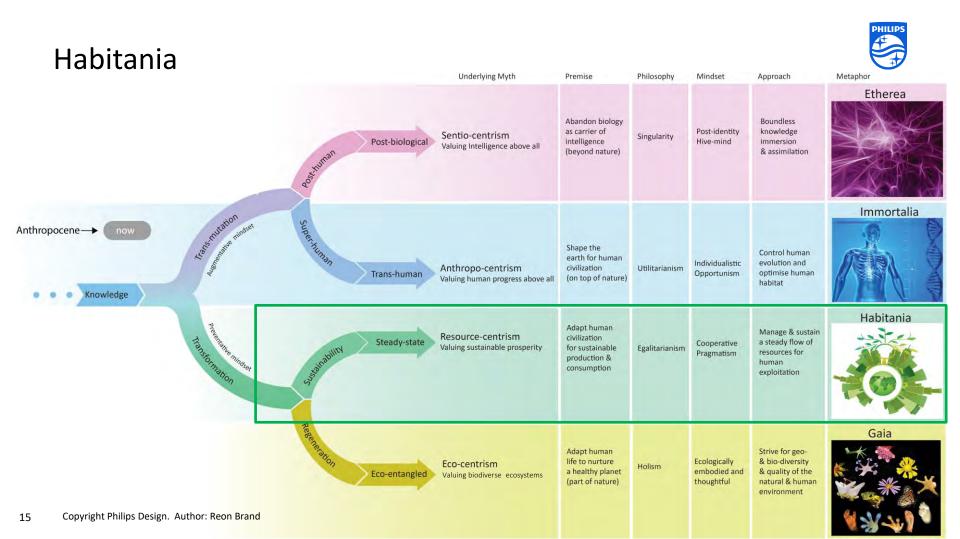
Health priority: *"I think therefore I am" (Digitizing the mind)*

Examples:

- AI-enabled mental health monitoring and corrective neural intervention
- Mind-uploading to substrate-independent digital mind platforms
- Crack the holy grail of **digital consciousness** / spiritual machines



Ensure sustainable human habitation "within the boundaries of the planet"



Habitania – steady-state sustainability

Issues with Sustainability:

Sustainable Development

16

Staying within 'boundaries of the planet'

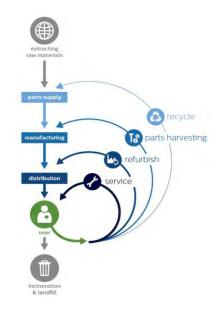
Key initiatives in "Habitania"

UN SDGs



3 GOOD HEALTH AND WELL-BEING GENDER EQUALITY 6 CLEAN WATER AND SANITATION NO Poverty 2 ZERO HUNGER QUALITY EDUCATION 5 {{{ **ſĬŧŦŦ**ŧĨ Ξ **9** INDUSTRY, INNOVATION AND INFRASTRUCTURE SUSTAINABLE CITIES AND COMMUNITIES RESPONSIBLE CONSUMPTION AFFORDABLE AND CLEAN ENERGY DECENT WORK AND ECONOMIC GROWTH **10** REDUCED INEQUALITIES 12 0 Ο AND PRODUCTION PEACE, JUSTICE AND STRONG **17** PARTNERSHIPS FOR THE GOALS 13 CLIMATE ACTION 14 LIFE BELOW WATER 15 LIFE ON LAND SUSTAINABLE INSTITUTIONS DEVELOPM

Circular economy



Is "Sustainable Development" an oxymoron?

Is it sufficient?

Habitania – potential digital enablers for health





Key health goal:

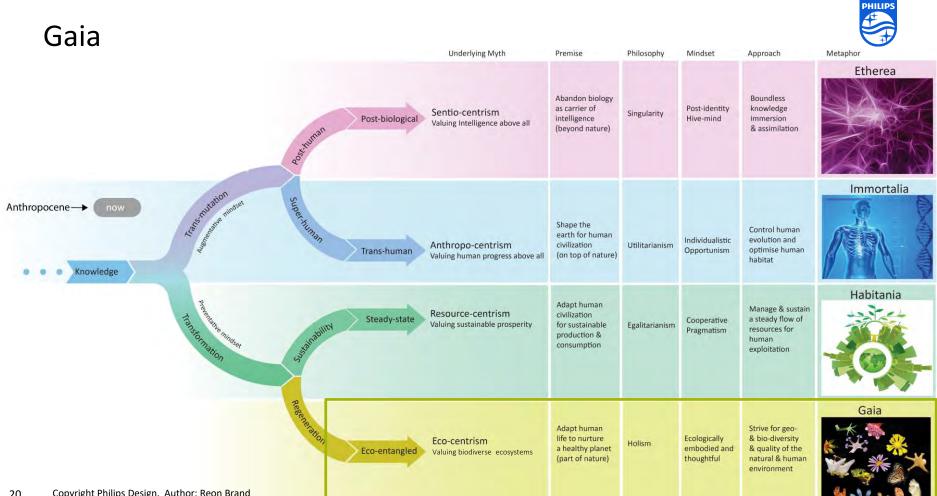
"Sustainable access to healthcare care for all"

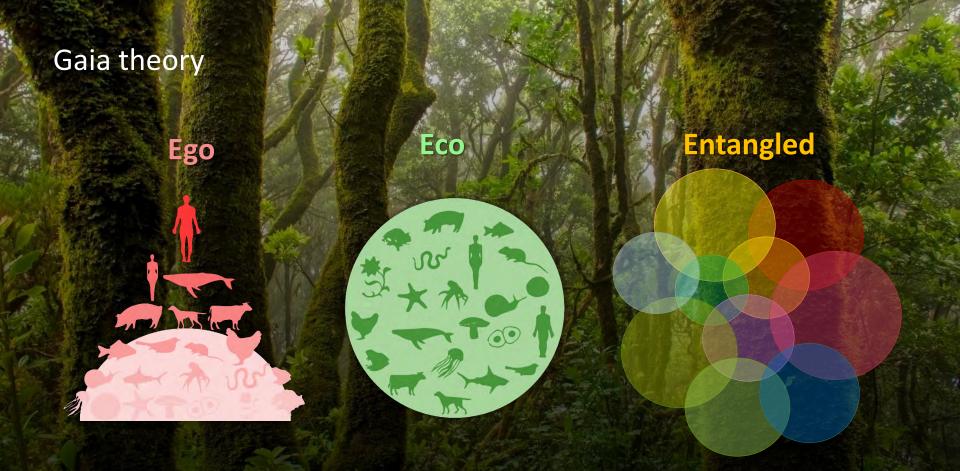
Examples:

- Al-supported population health modelling for health policy development
- Telemedicine & eHealth to improve access to healthcare and reduce cost of care
- Wearables and continuous personal and public monitoring, self-diagnosis & -treatment

Gaia

Live as an integral part of nature and regenerate biodiverse ecosystems





Gaia: eco-entanglement and health resilience

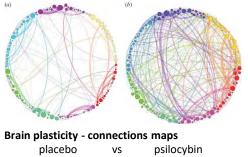








Psychobiological health and meaning







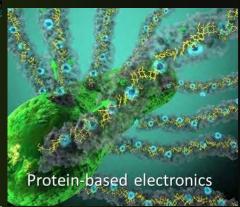
Gaia: eco-entangled planet

For nature (earth democracy)

Regenerative farming

Transition humancivilization towardseco-entangled living

Shift to materials that can seamlessly integrate with nature



Bioplastics



Image : Pixabay

Courtesy from Pixabay.com

Gaia – potential digital enablers for health





Core health strategy: *"Human health resilience through entanglement with healthy ecosystems"*

Examples:

- Al as "mentor" to help people to collectively rediscover, regenerate & connect with local ecosystems
- digital platform for local, seasonal and regenerative food sourcing/sharing
- Tech/creator/user platform for eco-integrated, **non-toxic living/working/public spaces**



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