

Science, technology and humanity - in the context of the long-term trajectory of peace- Wissenschaft, Technologie und Humanität - im Kontext der Langzeittrajektorie Frieden

Science,
technology
and humanity

B. Heiden &
B.
Tonino-Heiden

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Science,
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Triangle STH

Axioms

Relation of Sci.,
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Organisation and
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Stabilisation
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Applications

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Conclusion
and Outlook

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"Rationalität und Emotionalität in unsicheren Zeiten-
Wie werden wir in Zukunft leben?"



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Background:

- Accelerated “human development”.
- Global peace and democratisation process seems to be out of *balance*.
- Human technologies seem to become out of control (epidemics, earth warming, energy consumption, population growth...).
- System theory, cybernetics → Explainability of systems of any size scale.

Goal of this Work:

- Explain the triangle science, technology and humanity.
- Make predictions and recommendations of it.

Science, technology and humanity I

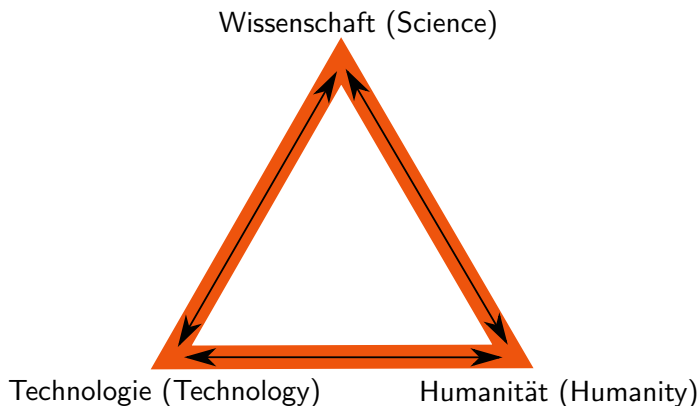


Figure 1: Science-Technology-Humanity (STH) Triangle

- Science, technology and humanity is strongly coupled.

Axiom 1

*Der Mensch wird **hyperhumanisiert** mit Hilfe von
Technologien und Wissenschaft.*

*Humans are being **hyperhumanised** with the help of
technologies and science.*

→ Langfristiger Frieden.

→ Long-term peace.

Axiom 2

*Rationalität wird durch Technologien **hyperrationalisiert**.
Rationality is **hyperrationalised** through technologies.*

→ Hyperrationalisierung.

→ Hyper-rationalisation.

→ Erfüllung Nachhaltigkeitsziele.

→ Meeting sustainability goals (SDGs).

→ Nachhaltigkeitskontext: Multilaterale
Wachstumsbeschränkungen.

→ Sustainable context: Multilateral growth constraints.

→ Hyperaufklärung, d.h. **Kultur**(standard)anstieg durch
wechselseitige selbstorganisatorische Kontrolle (z.B.
Gleichgewicht des Schreckens).

→ Hyper-enlightenment, i.e. **culture**(standard)rise through
mutual self-organising control (e.g. balance of terror).

Axiom 3

*Die negativen Effekte der Hyperrationalisierung
(Dysfunktionalitäten) **hypersensibilisieren**.*

*The negative effects of hyper-rationalisation
(dysfunctionalities) **hypersensitise**.*

- Globaler Friedensattraktor.
- Global peace attractor.
- Restabilisierung.
- Restabilisation.

Relation of Science, Technology and Self-Organisation

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- Wissenschaft ist eine selbstorganisatorische Form um Wissen zu organisieren.
- Science is a self-organising form to organise knowledge.
- Die Anwendung der Wissenschaft führt zu Technologie.¹
- The application of science leads to technology.¹

¹cf. also [BaF99a,2],[BaF99b,3],[AgJ12,1]

Organisation und Selbstorganisation - Organisation and Self-organisation I

Premise 1

*Technologie hat eine Schutzfunktion.
Technology has a protective function.^a*

^acf. also discussion in [GoJ22,5].

Premise 2

*Leben ist eine Technologie
Life is a technology*

Organisation und Selbstorganisation - Organisation and Self-organisation II

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Premise 3

Leben schützt sich selbst vor der Umwelt. Leben ist Umwelt, Natur.

Life protects itself from the environment. Life is environment, nature.

From this follows:

Axiom 4

Leben als Technologie hat die Funktion als Natur eine Natur zu schaffen, die innerhalb der Natur geschützt ist. Dies ist Selbstorganisation.

Life as technology has the function as nature to create a nature that is protected within nature. This is self-organisation.

Organisation und Selbstorganisation - Organisation and Self-organisation III

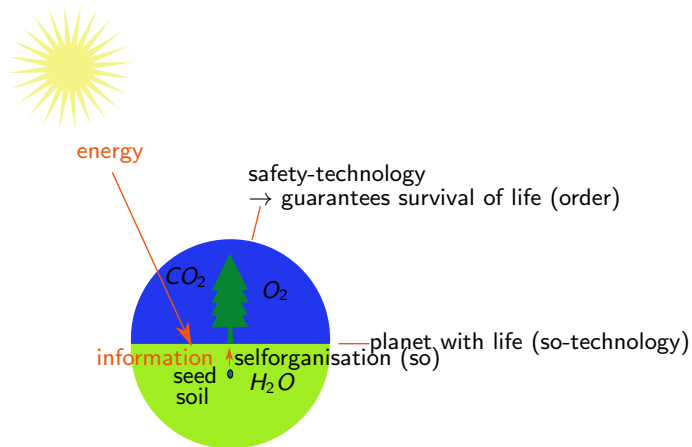


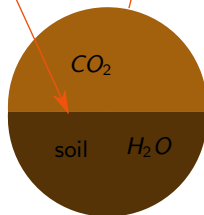
Figure 2: Life on-x as so-technology

Organisation und Selbstorganisation - Organisation and Self-organisation IV



energy

no safety-technology
→ does not guarantee
survival of life (unorder)



planet with no-life (so-technology)

Figure 3: Life off-x as no so-technology

Organisation und Selbstorganisation - Organisation and Self-organisation V

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- Life is a self-protecting **nature-technology** (orgiton of first order life- o_1).
 - Human technology is a 'natural' extension of his natural life protection property (orgiton of higher order life- o_2).
- (1) Life=so-(self-protection)-technology (life- o_1).
 - (2) Technology=extended so-technology (life- o_2).
- Human Technology aims at protecting life and hence is increasing the property of 'humanity' or taking care of human life conditions.
- Hence if it is successful it leads to a long-term peace trajectory.

Stabilisation Consideration of SO-Systems

Precondition for order growth: **Open system.**

In case of destabilising (bifurcation process):

- Decoupling.
- Decentralisation.

In case of further destabilising in the other direction (due to dysfunctionalisation):

- Counter-reverse stabilisation (energy-information ecology, see, e.g. Figure 2).

Democracy:

- Further models of democracy: Are a further development of STH (see, e.g. [GoJ01,4],[HeB22j,9]).

Economy and Production:

- Further models of economy and production are a further development of STH due to decentralisation of technologies and market, and by this of hyper-cybernetical connecting technologies.

Sustainability and Science:

- Global limitations of technologies (energy consumption), human population, risk-technologies increase the feedback-processes, and hence increase sensitivity to any form of human action. This forces then the use of sustainable technologies and actions which leads (when successful) to increasing humanity by means of science and technology.

Application Children Philosophy

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What does this mean for children philosophy?

- Human technology always has to take care of the human life condition.
 - Caring thinking is essential (Caring-Think- o_1)².
 - Logical reasoning enhanced technologically.
 - Improves Caring Thinking (Caring-Think- o_2).
 - Emergence contraction³ can be achieved by integrating physics into children-tools (e.g., Montessori material (cf. [HeB18f,6]).
 - This yields then a deep (subconscious) anchoring of rational technology based reasoning in future responsible decisions and actions (because of the deep technology enhanced feedback)(Caring-Think- o_3).
- Caring thinking is a prerequisite of the humanity property (self-protection).

²Caring-Think-Orgiton according to Orgiton Theory.

³[HeB22d,7], [HeB22c,8]

Conclusion and Outlook I

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Conclusion:

- Triangle of STH (Science Technology and Humanity)
→ strongly coupled.
 - Science enhances technology and technology enhances humanity.
- Problems:

- Scaling (Different dynamics).
- Emergence contraction (Acceleration dynamics).
- Distribution (Resource, power...).

Outlook:

- Develop further hyper-criticality - epistemological approach towards hyper-rationality in science.
- (Self-)Protect science, technology, humanity and life as an intrinsic **democratic movement** and **open system** (self-organisational premise).

Danke für die Aufmerksamkeit!
Thank you cordially for your attention!



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PS.: Die Präsentation kann später auch auf folgender Website
gefunden werden:

<http://www.dr-heiden.com/Vortraege.htm>

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