

SIG Emergent systems, information and society Report 6/2017–5/2019



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Contents

1 About

2 Activities

2.1 Projects

2.2 Meetings and events

2.3 Lectures

2.4 Teaching

2.5 Co-operation, positions, and prizes

2.6 Publications

2.7 Outlook

3 Organisational

1 About

the SIG is co-extensive with:

- Research Group @**The Institute for a Global Sustainable Information Society (GSIS)**, Vienna
- Arbeitskreis @**Leibniz-Sozietät der Wissenschaften zu Berlin e.V. (LS)**, Berlin

it aims at:

**advancing systems approaches towards techno-social systems,
in particular, computer systems**
(joining systems thinkers
and computer scientists
with a view to social impacts)

founded to honour and continue
the lifetime achievement
of **Klaus Fuchs-Kittowski**, Berlin



2.1 Projects (1/2)

- **Systems approaches to information ethics:** Tomas Sigmund, Wolfgang Hofkirchner (start: January 2017, supported by the *Department of Systems Analysis, University of Economics, Prague*, the *Bertalanffy Center* until April 2018, and from December 2018 by *The Institute for a Global Sustainable Information Society (GSIS)*)
- **Origins of systems thinking:** Robert K. Logan, Annette Grathoff, Wolfgang Hofkirchner (Start: August 2017, meeting July 2018)



2.1 Projects (2/2)

- **glossaLAB:** José María Díaz Nafría, Teresa Guarda (start: March 2019, supported by the *Santa Elena Institute of Science and Technological Development, Ecuador*)



2.2 Meetings and events (1/2)

- **three workshops at IS4SI Summit 2017 Gothenburg, June 2017:**
 - *Possibility and Actuality: Towards a Manifesto on Evolutionary Systems* (chair: Rainer E. Zimmermann)
 - *Digital Netizens at the crossroads of sharing and privatising* (chair: Wolfgang Hofkirchner)
 - *Transhumanism – the proper guide to a posthuman condition or a dangerous idea?* (chair: Hans-Jörg Kreowski)
- financially supported by the Bertalanffy Center and the Institut für Design Science München



2.2 Meetings and events (2/2)

- **Rational and irrational discourses in the age of digitisation, HTW Berlin, 21-22 September 2017**, supported by the LS, BCSSS and the Institut für Design Science München
- **Technik und Literatur**, scientific colloquium on the occasion of 70 birthday Wolfgang Coy, Berlin, **8 December 2017**, supported by the LS
- **Towards common process understanding in collective welfare**, workshop, **10th conference of Subject-oriented Business Process Management (S-BPM)**, Johannes Kepler University Linz, **6 April 2018**



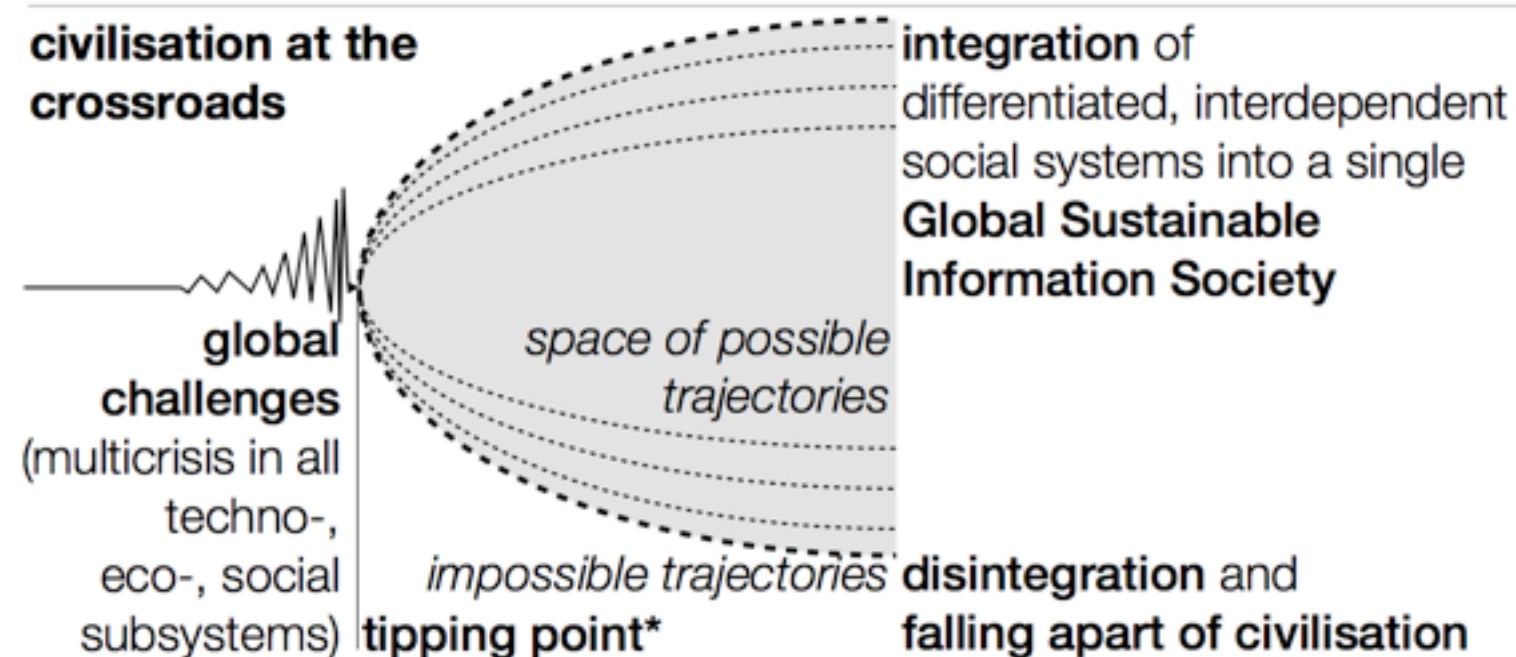
2.3 Lectures

- **Cristina Voinea:** *The Internet as a labyrinth – a failed cognitive enhancement*, TU Wien, 15 November 2017
- **John Collier:** *What is autonomy?*, Bertalanffy Center, Vienna, 28 March 2018
- **Robert K. Logan:** *Who were the first system thinkers?*, TU Wien, 5 July 2018
- **Klaus Kornwachs:** *Data – Interests – Ontologies: How business models distort science*, Centre for Informatics and Society, TU Wien, 10 December 2018
- **Klaus Kornwachs:** *Kritik der Autonomie – Warum wir unsere technischen Geschöpfe an die Hand nehmen müssen*, Club of Vienna, 11 December 2018 (in German)

2.4 Teaching

- **Tomáš Sigmund**, University of Economics Prague, and **Wolfgang Hofkirchner**: course module *Designing technosocial systems*, **Vienna University of Technology**, Summer Semester 2017
- **Wolfgang Hofkirchner**: course *SOLV XI (self-organised course no. 11) on the change of production and industrial relations in the course of the digital revolution*, **Department of Economics (Volkswirtschaft) of the Vienna University of Economics and Business (WU)**, January 2018

1.2.1 The Great Bifurcation



* Ervin László

2.5 Co-operation, positions, and prizes (1/2)

- Co-operation:
 - *BITrum*, León
 - *Communications Engineering*, Johannes-Kepler University Linz
 - *Computer Professionals for Peace and Social Responsibility (FlfF)*, Bremen
 - *Department of Systems Analysis, University of Economics, Prague*
 - *Institut für Design Science München*
 - *International Centre for Philosophy of Information (ICPI)*, Xi'an
 - *The Centre for Social Ontology (CSO)*, Lausanne, Warwick, London
 - *Ukrainian Synergetic Society*, Kyev
- Positions:
 - Wolfgang Hofkirchner, member, *committee, Classical Ethics in ICTs, The IEEE Global Initiative for Ethical Considerations in Artificial Intelligence and Autonomous Systems* (2016–)
 - Rainer E. Zimmermann, President, *Leibniz-Sozietät der Wissenschaften zu Berlin* (2019-2023)

2.5 Co-operation, positions, and prizes (2/2)

- Prizes:
 - Wolfgang Coy: *Weizenbaum Medal 2018* (German Platform of Computer Scientists for Peace and Social Responsibility)

2.6 Publications (1/3)

H. Ekbja: *The political economy of drone warfare*

T. Sigmund: *Privacy in cyberspace – threats and prospects*

S. Hügél, H.-J. Kreowski, D. Meyer-Ebrecht:
Cyberwar and cyberpeace

J. Díaz: *Cyber-subsidiarity:
Towards a global sustainable information society*

In: **E.G. Carayannis et al. (eds.)**, *Handbook of Cyber-Development, Cyber-Democracy, and Cyber-Defense*, Springer: Dordrecht, 2018

Elias G. Carayannis
David F. J. Campbell
Marios P. Efthymiopoulos
Editors

Handbook of Cyber-Development, Cyber-Democracy, and Cyber-Defense

2.6 Publications (2/3)

W. Hofkirchner, H.-J. Kreowski (eds.): *Emergente Systeme, Information und Gesellschaft – Probleme und Lösungsansätze*,
Leibniz Online 2018, No. 32 (in German)

Wolfgang Hofkirchner und Hans-Jörg Kreowski: *Editorial*

Wolfgang Hofkirchner: *Eine Informatik für eine globale nachhaltige Informationsgesellschaft*

Rainer E. Zimmermann: *System, Materie, Information. Probleme der Grundlegung ihrer Begriffe*

Tomáš Sigmund: *Der zerbrechliche Charakter der Informationsethik*

Werner Ebeling: *Entropie, Information und Emergenz*

Klaus Fuchs-Kittowski: *Zur Entstehung und Erhaltung von Information in lebendiger Organisation – Grundkategorien einer Theorie der Biologie und der Informatik*

Peter Brödner: *„Information“ – allgegenwärtig, doch ungeklärt*

Christian Stary: *Systemische Gestaltung emergenter Systeme am Beispiel mathematisch begründeter Lernunterstützung*

Hans-Jörg Kreowski: *Autonomie in technischen Systemen*

LEIBNIZ ONLINE

Wissenschaftliche Internet-Zeitschrift der Leibniz-Sozietät e. V.

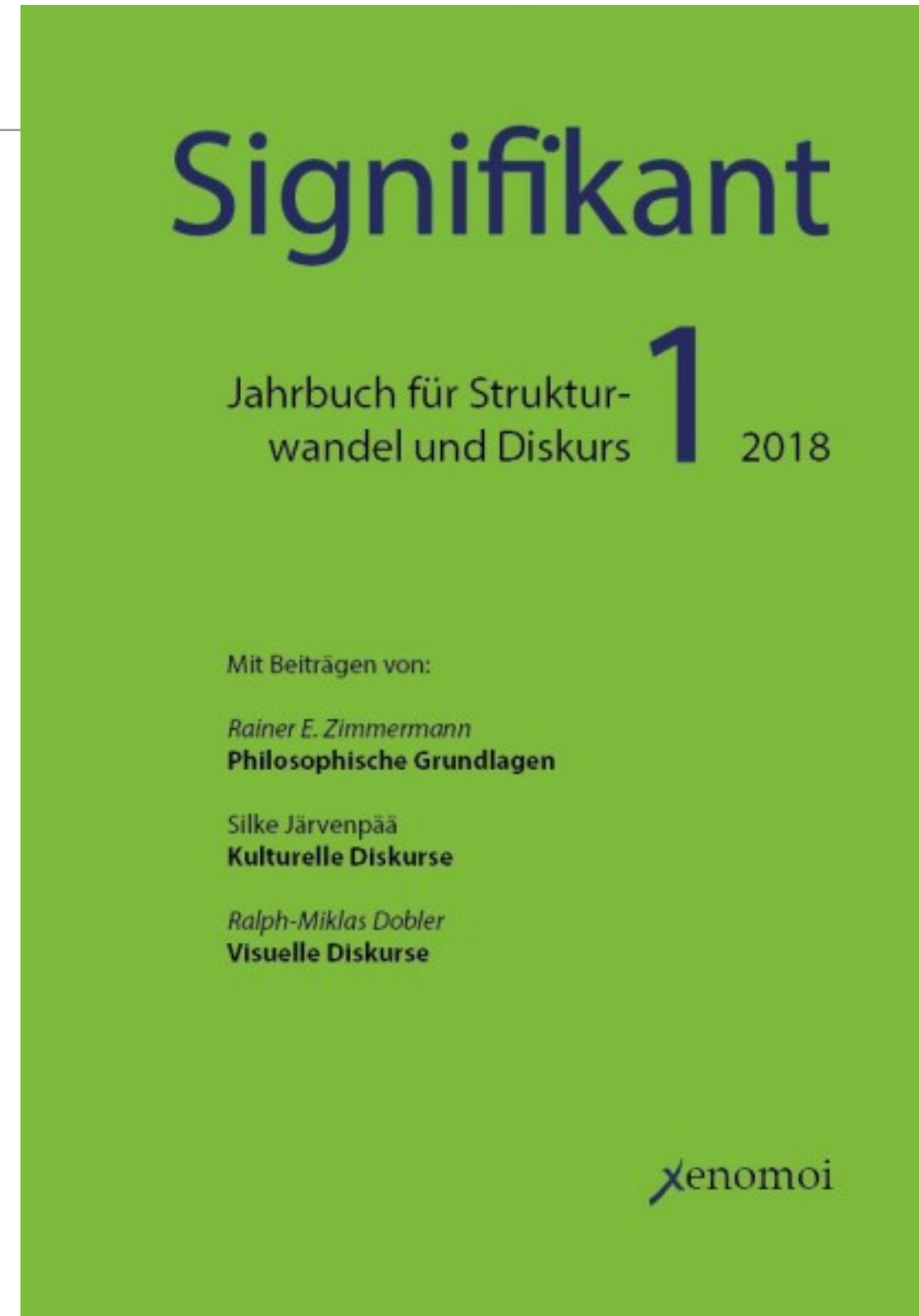
ISSN 1863-3285

2.6 Publications (3/3)

R. E. Zimmermann, S. Järvenpää, R.-M. Dobler (eds.): *Signifikant, Jahrbuch für Strukturwandel und Diskurs 1, Öffentlichkeit im digitalen Zeitalter*, xenomoi: Berlin 2018 (in German)



R. K. Logan, A. Braga (eds.): *AI and the singularity: a fallacy or a great opportunity?*, Special Issue, Information 2018



2.7 Outlook (1/2)

Projects:

- *International Encyclopedia of Systems and Cybernetics* was not financially supported by the Bertalanffy Center
- building up a PostDoc team in the field of techno-eco-social transformation to be funded by the Austrian Science Funds

Meetings and events:

- *IS4SI Summit*
- *Was ist Wahrheit?*, co-organised with Institut für Design Science München, Lutherstadt Wittenberg, 27-29 September 2019 (in German)
- *Zukunft der Arbeit*, co-organised with LS Berlin, 21 October 2019 (in German)
- *Building up a Global Sustainable Information Society, Second International Conference on Applied Informatics (ICAI 2019)*, co-organised by our partner BITrum, Madrid, 7 to 9 November 2019

2.7 Outlook (2/2)

Publications:

- *Signifikant 2*, expected for **2019**
- Hofkirchner, Kreowski (eds.): *Transhumanism – the proper guide to a posthuman condition or a dangerous idea?*, Book series Cognitive Technologies, Springer, Dordrecht, expected for **2019**



3 Organisational

from >40 group members and friends (2017) to >60 (2019)

as always, no financial support from **IS4SI** (but from Bertalanffy Center – in particular, for participation in the IS4SI Summit 2017 in Gothenburg –, LS, Institut für Design Science München, and universities instead)

as the support for the group from the Bertalanffy Center ended in 2018, the group allied with the Unified Theory of Information (UTI) Research Group and is now a Unit of **GSIS The Institute for a Global Sustainable Information Society**, Vienna: gsis.at; our is4si.org website will direct you to <http://gsis.at/units/emergent-systems-information-and-society-research-group/>, where you will find any information about our SIG