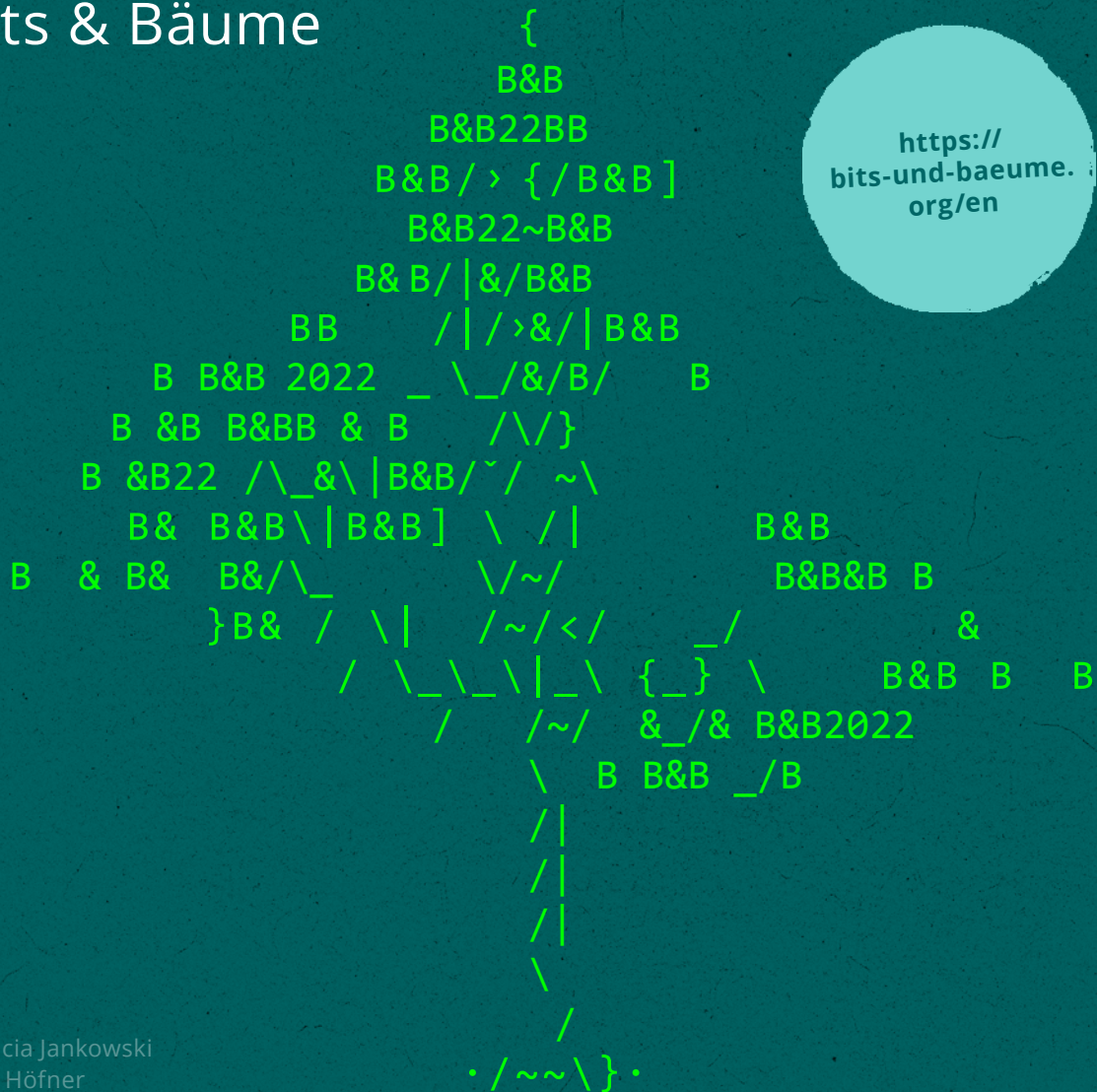


SHAPING DIGITAL TRANSFORMATION FOR A SUSTAINABLE SOCIETY

Contributions from
Bits & Bäume



[https://
bits-und-baeume.
org/en](https://bits-und-baeume.org/en)



Patricia Jankowski
Anja Höfner
Marja Lena Hoffmann
Friederike Rohde
Rainer Rehak
Johanna Graf (Eds.)

TRANSFORMING...

CONTENT

EDITORIAL <i>P. Jankowski, A. Höfner & M. L. Hoffmann</i>	/// 000
PREFACE <i>T. Santarius & N. Guenot</i>	
Reasons for the Success of the Second Bits & Bäume Conference in 2022	/// 000

1

REDEFINING PROGRESS: CONFRONTING THE CHALLENGES OF DIGITALISATION AND SUSTAINABILITY

CHALLENGES OF DIGITALISATION AND SUSTAINABILITY AT A GLANCE <i>Infographic</i>	
<i>F. Rohde & P. Jankowski</i> Digitalisation and Sustainability	/// 000
WHAT YOUR DATA DISCLOSES ABOUT OTHERS <i>L. Fröberg</i>	/// 000
NO BLOCKCHAINS ON A DEAD PLANET <i>P. Robben & F. Hildebrandt</i>	/// 000
ARTIFICIAL INTELLIGENCE FOR REAL SUSTAINABILITY <i>R. Rehak</i>	
What is Artificial Intelligence and Can it Help with the Sustainability Transformation?	/// 000
THE INVISIBLE ENVIRONMENTAL IMPACT OF MOBILE APPS <i>F. Petri & M. Ruhenstroth</i>	/// 000
TRANSPARENCY FOR SOFTWARE CLIMATE IMPACT <i>S. Kruijer, A. Tarara & M. Schulze</i>	
Concepts towards a Life Cycle Assessment of Software	/// 000

2

VALUES FOR TRANSFORMATION: FOUNDATION FOR A SOCIO-ECOLOGICAL DIGITALISATION

A FEMINIST REMINDER IN TIMES OF DIGITALISATION <i>H. Völkle & E. Lindinger</i>	/// 000
HOW TO GROW ALTERNATIVE PLATFORMS (FAST) <i>G. Franke & J. Pentzien</i>	/// 000
AN OFFICE WITHOUT GAFAM? <i>V. Frick et al.</i>	
Sustainable Infrastructures as Corporate Digital Responsibility	/// 000
INFRASTRUCTURES AS COMMONS <i>J. U. Hasecke & M. Hierweck</i>	
How We're Taking Back the Internet	/// 000
THE DIGITAL POWERWASH <i>B. Wijers</i>	
Are the Digital Tools You Employ Reflecting Your Values?	/// 000

3

TRANSFORMATIVE CHANGE: NEW CONCEPTS AND PARADIGMS TO UPDATE AND REPLACE CURRENT SOCIO-TECHNICAL STRUCTURES

OPEN SOURCE HARDWARE AND OPEN DESIGN <i>L. Zimmermann & M. Voigt</i>	
Enablers of a Sustainable Circular Economy	/// 000
ON DIGITAL SUSTAINABILITY AND DIGITAL PUBLIC GOODS	
<i>M. Stürmer, M. Tiede, J. Nussbaumer & F. Wäspi</i>	/// 000
FROM DIGITAL CANNIBALISM TO A NEW FOOD PYRAMID <i>N. Rahman</i>	
How Can Realistic Accountability Frameworks Change Big Tech's Relationship with Startups in the Global South?	/// 000
BUSINESS OF DEEP TRANSFORMATIONS <i>I. Nesterova, L. Beyeler & L. Niessen</i>	
A Non-binary Approach	/// 000
TOWARDS ARTFUL SUSTAINABLE INTEGRATION OF IT INFRASTRUCTURES	
<i>E. Sørensen & S. Laser</i>	
A Report from The Construction of a University Data Centre	/// 000

4

BEYOND BUSINESS AS USUAL: USE CASES FOR MORE SUSTAINABLE TECH DESIGN

COMPUTER SCIENTISTS FOR FUTURE <i>E. Eickstädt, M. Becke, M. Kohler & J. Padberg</i>	/// 000
HOW DIGITALISATION CAN HELP NEIGHBOURHOODS SHARE ELECTRICITY	
<i>A. Aretz & I. Jungblut</i>	/// 000
DIGITALISATION FOR A SOCIO-ECOLOGICAL TRANSFORMATION IN AGRICULTURE	
<i>L. Prause & A. Egger</i>	/// 000
WORKSHOP RESULTS <i>melzai</i>	
How to Pair Intersectional Feminism and Technology for a Sustainable Future	/// 000

5

POLITICS UNDER PRESSURE: NECESSARY CHANGES ON THE POLITICAL LEVEL

BITS & BÄUME POLITICAL DEMANDS AT A GLANCE <i>Infographic</i>	
<i>M. L. Hoffmann & J. Graf</i>	/// 000
MAKING A MORE SUSTAINABLE TELECOM SECTOR WITH FREE SOFTWARE	
<i>L. Lasota & E. Albers</i>	/// 000
IT'S TIME FOR BOLD POLICY-MAKING <i>H. Zimmermann & J. Pohl</i>	
Suggestions for a Climate-friendly Digitalisation	/// 000
NEW GOVERNMENT FOR NEW TASKS? <i>S. Ramesohl, J. Wirtz, A. Gunnemann & R. Weier</i>	
The Reorganisation of Government Action in the Digital World	/// 000

6

A COLLECTIVE EFFORT: THE POWER OF CIVIL SOCIETY DRIVING SUSTAINABLE CHANGE

WHY DESIGNING A SUSTAINABLE DIGITAL FUTURE REQUIRES POLICY-MAKERS TO INCLUDE CIVIL SOCIETY <i>V. Frick, A. Mollen & F. Rohde</i>	/// 000
PREVENTING SURVEILLANCE CAPITALISM FROM HIJACKING SOCIO-ECOLOGICAL TRANSFORMATIONS <i>L. Hennecke & K. Jung</i>	/// 000
CROWDACTING AS A SPARK FOR CLIMATE PROTECTION? <i>B. Parske & K. Kastner</i>	
A Digitally Supported Concept for Collective Action	/// 000
HYPERNUDING? <i>E. Lamura & M. Lamura</i>	
Please no, touch me gently	/// 000

TAKE ACTION!

<i>N. Duddek & A. Höfner</i>	
How Can I Get Involved?	/// 000
Acknowledgements	/// 000

SHAPING DIGITAL TRANSFORMATION FOR A SUSTAINABLE SOCIETY

The second «Bits & Bäume» conference took place in Berlin in 2022. Once again, it provided a space for critical tech and sustainability communities to share ideas and collaborate towards the common goal of shaping digitalisation to foster sustainability. This companion book compiles the insights, work, research and opinions of more than 65 authors with a «Bits & Bäume» background, including practitioners, researchers and activists.

The articles included in this journal demonstrate the progress made in merging «Bits» and «Bäume» (Trees) topics since our first publication in 2019 by addressing different sub-areas of the intersections between digitalisation and sustainability. Encompassing a wide range of topics, the articles delve into pressing challenges such as the resource consumption, power implications and democratic governance of digital infrastructures, AI, blockchains, mobile apps, and other software applications, as well as the need to address the unsustainable practices and paradigms of e.g., the platform economy. Offering not only transparency but also solutions, the journal presents practical approaches and concepts related to the necessary transformation, such as the Computer Science for Future programme. It also contains articles commenting on current political developments, such as the EU legislation on sustainability and freedom-related aspects of ICT devices. Further articles highlight the power of and need for an active civil society, aiming to inspire activism.

This journal caters for everyone: Are you just getting into the topics around Bits & Bäume? Have you been involved in this field for many years, or are you an expert in one of the areas touched on here? In this journal you will find both introductory topics, such as illustrations on the challenges of today's digitalised society, and also advanced topics, such as conceptual and regulatory discussions. Whatever your background, we think you'll enjoy the read, learn something new on the way, and get inspired. Ultimately, we are all united by the overarching goal of shaping digitalisation as part of a necessary socio-ecological change; one which contributes to a sustainable and just society.