



DIGITALIZATION FOR SUSTAINABILITY – SUSTAINABLE DIGITALIZATION

Hohenheim Summer School 2025

IMPRINT

University of Hohenheim
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Digitalization for Sustainability – Sustainable Digitalization: Individuals, Organizations, and Societies in the Twin Transformation

The so-called “twin transformation” refers to the current trends of digitalization and sustainability, whose interplay is complex, dynamic, and potentially ambivalent. On the one side, digitalization can support individuals, organizations, and societies to become more sustainable. It can foster a more intelligent use and the conservation of natural and human resources in several ways, e.g. by providing additional information, monitoring behavior, making criteria-guided decisions, and improving the efficiency of processes. On the other side, digitalization is also based on the investment of natural and human resources, accompanied by possible rebound effects, and algorithms are itself biased by design. This refers to the issue of sustainable digitalization. Against this background, understanding the twin transformation means to critically investigate the commonalities and contradictions between digitalization and sustainability and relate them to the needs, demands, and actions of individuals, organizations, and societies.

Based on an interdisciplinary lecture program, the UHOH Summer School 2025 will provide insights into the newest research on the twin transformation. On this basis, participants will be able to develop and critically discuss their own thoughts on the interrelationship between digitalization and sustainability with regard to individuals, organizations and societies.

	Mon, June 16 th	Tue, June 17 th	Wed, June 18 th	Thurs, June 19 th	Frid, June 20 th	Sat, June 21 st	Sun, June 22 ^{sd}	
Room	Blauer Saal Balkonsaal	Blauer Saal	Blauer Saal		Blauer Saal			
9.00 – 10.30 am	Welcome Incl. Cam- pus tour	Econom- ics and Sustaina- bility Chal- lenges of Crypto- curren- cies and Block- chains Michael Evers	Entrepre- neurship as a Cata- lyst for the Twin Trans-for- mation* Andreas Kuckertz (*finishes a little earlier to get to Trumpf in time)	Public Holiday	An Over- view of the Twin Trans-for- mation from an Infor- mation Systems Perspec- tive Henner Gimpel	Day Trip to Tü- bingen with a punting trip		
11.00 – 12.30 pm								
1.30 – 3.00 Pm	Work (in) the Twin Trans-for- mation Caroline Ruiner		Company Visit Trumpf in Ditzingen at 2pm		Bar Hop- ping in Stuttgart in the evening			
3.30 – 5.00 pm								

	Mon, June 23 rd	Tue, June 24 th	Wed, June 25 th	Thurs, June 26 th	Frid, June 27 th	Sat, June 28 th	Sun, June 29 th
Room	Blauer Saal	Aula	Blauer Saal	Blauer Saal			
9.00 – 10.30 am	Open Science	Smart Sustainability	Implementing AI x Sustainability Strategies	Innovating for a Better Tomorrow	Porsche Museum at 10 am		
11.00 –	Ulrike Fasbender	Siegmar Otto					

Explanation:

Blue: Academic Lectures

Yellow: Cultural Program

Grey: Public Holiday

Frame:

Heading: Digitalization for Sustainability – Sustainable Digitalization: Individuals, Organizations, and Societies in the Twin Transformation

10 Academic Lectures = 20 Teaching Units per week

6 ECTS points

Academic responsibility lies with Prof. Dr. Ruiner and Ronny Ehlen

Overall responsibility for organization is with Dr. Jana Funk, and cultural program organization is handled by Fabian Moroff.

Lectures: Monday, June 16th – Thursday, June 26th, 2025

Prof. Dr. Marion Büttgen, Dr. Ellen Weber, Felix Zechiel (M.Sc.), Irini Tsaga (M.A.)

Implementing AI x Sustainability Strategies in Companies: A Case Study Seminar

Lecture Abstract:

This case study seminar focuses on how companies can leverage artificial intelligence (AI) to accelerate sustainability by formulating and implementing appropriate strategies.

After an introduction to the interplay of AI and sustainability, students apply their newly acquired knowledge in groups by analyzing cases and identifying initiatives for strategy formulation and implementation.

Prof. Dr. Bernd Ebersberger, Indra da Silva Wagner (M.Sc.)

Innovating for a Better Tomorrow

Lecture Abstract:

In a world of constant change, innovation is more than just a nice add-on. Rather, innovation is fundamental to the success and survival of companies and organizations. Those who stand still will be left behind. And those who are left behind will disappear. Innovation is the engine of competitiveness, and it allows companies and organizations to contribute to solving major social, ecological, and economic challenges. The rub, however, is that these solutions require a radical shift in how leaders approach problems. We often follow the paradigm of "what has worked before." But that doesn't work for a future, unlike anything we've seen before.

In this lecture, sustainability innovations are discussed and unusual innovation ideas are created. Thereby, this lecture provides students with a change of perspective and innovation ideas—for them, for their organization, and for a better world.

Prof. Dr. Michael Evers

The Economics and Sustainability Challenges of Cryptocurrencies and Blockchains

Lecture Abstract:

Digitalization is transforming financial markets and everyday transactions, particularly through the rise of cashless payments. At the forefront of this transformation are blockchain

and, more significantly, distributed ledger technology (DLT), which are often seen as disruptive innovations. Terms like cryptoassets, Bitcoin, and Ethereum have become global buzzwords. However, one major concern is the sustainability of blockchain, especially the energy-intensive consensus mechanisms used to validate transactions.

The students explore the foundational economics behind these groundbreaking technologies. The lecture delves into how blockchain and DLT establish trust and credibility in a decentralized network of participants, ensuring the secure transfer of money, assets, and wealth. Additionally, the mechanics of consensus mechanisms are examined, explaining why they require significant energy resources. Finally, alternative, more sustainable approaches to achieving trust and credibility in distributed networks are discussed, considering the future implications for the technology and its implementation.

Prof. Dr. Ulrike Fasbender, Robin Umbra (M.Sc.)

Open Science: Why Should We Care?

Lecture Abstract:

Around the world, researchers have become aware of the value and importance of open science, not at least because existing practices to collecting, analyzing, and reporting data made it too easy to publish false-positive findings.

In this lecture, students explore publication biases and replication failures and discuss, how open science practices, such as disclosure and preregistration, can contribute to overcoming these issues and provide a better, more precise and more reproducible science.

Prof. Dr. Henner Gimpel, Fabian Probst (M.Sc.)

An Overview of the Twin Transformation from an Information Systems Perspective

Lecture Abstract:

As organizations redefine their identities in a rapidly digitalizing world, the urgency of the climate crisis compels businesses to embrace sustainability. Digitalization and sustainability are not just parallel trends but are deeply interconnected. This course refers to the concept of "Twin Transformation", where digital and sustainable transformations reinforce each other. By combining digital technologies, such as artificial intelligence (AI) and digital nudging, with

sustainability efforts, organizations can achieve their sustainability goals. Sustainability, in turn, guides ethical and effective digital advancements.

The lecture explores concepts of digitalization and sustainability in industry and society, providing students with the frameworks and methods needed to navigate this twin transformation.

Jun-Prof. Dr. Laura Henn, Dr. Ronja Gerdes

Lessons from Environmental Psychology for the Twin Transformation: Understanding People's Motivation for Sustainable Behavior and the Role of Digital Technology

Lecture Abstract:

A sustainable transformation requires changes in behaviors and lifestyles of individuals in all parts of life. Digital technologies can support such changes.

In this lecture, students gain insights from environmental psychology on why, when, and how people are willing and able to change their behavior and how this process can be supported by technology.

Prof. Dr. Andreas Kuckertz

Entrepreneurship as a Catalyst for the Twin Transformation

Lecture Abstract:

This lecture examines the transformative role of entrepreneurship in digitalization and sustainability, guided by Davidsson et al.'s (2020) external enabler framework. It explores how external enablers such as technological advances, regulatory changes, and societal shifts can be harnessed to create new opportunities for innovative ventures that promote sustainable practices through digital means. By integrating digital solutions with sustainable business models, entrepreneurial initiatives can effectively address the challenges and opportunities presented by the twin transformation. Case studies will illustrate successful approaches and highlight the potential for startups to balance technological advancement with sustainable development.

The highly interactive lecture encourages students to engage in discussions, collaborative activities, and critical analysis to apply these concepts to real-world scenarios, fostering a dynamic learning environment.

Prof. Dr. Siegmар Otto, Sarah Zabel (M.Sc.)

Smart Sustainability – Sustainability on the Interface between Humans and New Digital Technology

Lecture Abstract:

This lecture discusses the opportunities of specific technologies for the environment, society, and economy, as well as the challenges that need to be taken into account when applying these technologies (e.g., biases in algorithms, or an increase in inequality through barriers to access to technology). Different areas of application (e.g., smart cities, customer relationship management) and different technologies are examined and analyzed against the background of sustainable development.

In the first part of the lecture, a matrix of different major smart technologies (e.g., blockchain, machine learning) and major sustainability goals (e.g., sustainable cities, health and welfare) is introduced. This matrix allows to discover the challenges and opportunities that come with these technologies for the different sustainability goals. In the second part, students will focus on one or two of these challenges.

Prof. Dr. Caroline Ruiner, Dr. Ronny Ehlen

Work (in) the Twin Transformation: A Paradox Perspective

Lecture Abstract:

The twin transformation affects the world of work where it often leads to the emergence of contradictions. For example, digital technologies can contribute to economic and ecological sustainability by improving work and process efficiency but at the cost of a deterioration of social sustainability in terms of working conditions. While highlighting possible tensions, the paradox perspective also acknowledges that they cannot be ultimately solved. Instead, organizations and workers have to deal with the competing demands of the twin transformation in the sense of a dynamic equilibrium, which implies constant balancing and adjusting.

The lecture introduces the students into a paradox perspective on the twin transformation, presents specific paradoxes related to the twin transformation, explores how workers and organizations theoretically and practically manage the paradoxes, and discusses the

(un)intended downstream effects.

Prof. Dr. Matthias Uhl

Behavioral Ethics of Digitalization: Towards an Empirically Informed Sustainability

Lecture Abstract:

An increasing number of decisions are being delegated to autonomous systems. Even if their role is limited to providing decision support, they nevertheless systematically mediate our relationship with the world. An understanding of human attitudes towards artifacts and their power over us is crucial to enable sustainable human-centric digitalization.

The lecture discusses normative approaches to the ethics of digitalization and provides students with an overview of relevant empirical results from the field.

Cultural Program

Where to go in your free time:

Wilhelma

The Wilhelma, the zoo of Stuttgart, is the most popular place for a leisure-time visit in Baden-Württemberg's capital city. Every year, more than 2 million visitors come to the park from Stuttgart itself, from Baden-Württemberg and from the rest of Germany, as well as from neighboring European countries. The Wilhelma is not just a zoo in the generally accepted sense of the word - it's the only zoological botanical garden in Europe. With its combination of plants, animals and historic buildings, the Wilhelma is unique worldwide.

Opening Hours: Daily until 16.30 or 18.30 depending on the day

Entrance Fee: 15 Euro (with student ID)

Mercedes-Benz Museum

The Mercedes-Benz Museum is the only museum in the world that can document in a single continuous timeline over 125 years of automobile history from its very beginnings to the present day. On nine levels and covering a floor space of 16,500 square meters, the museum presents 160 vehicles and over 1,500 exhibits. As a place of innovation, it also demonstrates that history can point the way ahead. The museum contains more than 160 vehicles, some dating back to the very earliest days of the motor engine. It provides visitors with free audio tours in a variety of languages.

Opening Hours: Tuesdays to Sundays: 9:00 to 18:00

Entrance Fee: 8 Euro (with student ID)

Esslingen

The former Free Imperial City "Esslingen am Neckar" nestles in the Neckar Valley and is surrounded by vineyards. The city looks back on a history of over 1,200 years. A stroll through the winding cobblestone alleyways and inviting pedestrian zones of the historical Old Town can be recommended not only as a shopping experience but also as a walk into the past. The medieval Old Town is the only one in the Stuttgart Region to be so well preserved. The oldest row of half-timbered houses in Germany can be admired as well as patricians' and wine-

growers' houses, churches, monastic administrative centers (Pfleghöfe), gate towers and towers.

Ludwigsburg

The city of Ludwigsburg has many different faces. It is the county seat of local government and has about 87,000 inhabitants spread over seven suburbs. Ludwigsburg is one of the most prosperous economic centers in the state. It is home to 50 factories, 1200 craft-oriented and commercial companies and over 2000 wholesale and retail outlets. Accommodating a teachers' training college, the University of Applied Sciences and the only film academy of the state, Ludwigsburg is also a center of education. The greatest and best-preserved baroque palace in Germany is also situated in Ludwigsburg. The city is said to be the cradle of Swabian poetry and in the past, the kings of Württemberg resided here.

Ritter Sport

Ritter Sport is a brand of chocolate from the Alfred Ritter GmbH & Co. KG. Each 100 gram square-shaped bar is divided into 16 smaller squares, creating a four-by-four pattern. In 2013, the company introduced a new version that is divided into 9 smaller squares using a three-by-three pattern. Large bars weighing 250 grams and 16.5 gram mini bars are also available, although in fewer varieties. The chocolate brand *Ritter Sport Schokolade* produced as the square tablet known today was launched in 1932 after Clara suggested creating a chocolate bar that would fit into every sport jacket pocket without breaking. The Ritter museum is a "homage to the square" - to describe the Sammlung Marli Hoppe-Ritter. The collection consists of nearly 600 paintings, objects, sculptures and graphic works, a breadth of painterly and sculptural confrontation with the square form used as the design for the Ritter chocolate. Ritter's factory is located in Waldenbuch, outside Stuttgart. They have a shop and museum there as well that is open to visitors.

Opening hours: Shop: Monday to Friday 8:00 to 18:30, Saturday 9:00 to 18:00 Museum: Tuesday to Sunday 11:00 to 18:00 (4 Euro with student ID)

OutletCity Metzingen

In Metzingen you can find one of Europe's largest outlet centers, with more than 50 top brands and price reductions of between 30 and 70 percent all year round. Fashion, lifestyle, design, food & drink and premium shopping set within innovative architectural surroundings

Further Information





and all just a stone's throw from the historical town center of Metzingen. Its reputation as one of Europe's leading factory outlet locations has already spread around the world. Every year over three million visitors from all over the world make the town one of the most important international shopping destinations. Tradition of the town as a center for textiles and the home of the Hugo Boss brand meet contemporary issues: architecture, fashion, design, lifestyle, culture and cuisine.

Opening Hours: Closed on Sundays

Public Transport

Olgaeck (Internationales Studierendenhotel) → University of Hohenheim



From the Internationales Studierendenhotel to the University of Hohenheim you need approximately 40 minutes by public transport.

- 1.) Go to the Subway Station **Metzstraße**
 - 2.) Take the subway  U1, U9, U2, or U14 to Hauptbahnhof Arnulff-Klett-Platz and then the  U7 Direction Nellingen Ostfildern or  U15 Direction Ruhbank (Fernsehturm)
 - 3.) Exit at **Ruhbank (Fernsehturm)**
 - 4.) Take the bus  70 Direction Plieningen Seemühlenweg or Plieningen Garbe
 - 5.) Exit at the bus station **Universität Hohenheim**
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University of Hohenheim → City center / Main station

You can reach Stuttgart city center from our university within 30 minutes by public transport. There are several possibilities to get there. The central exit: Schlossplatz or Hauptbahnhof (main station).

Alternative 1:

- 1.) At the bus station **Universität Hohenheim**
- 2.) Take the bus  70 Direction Ruhbank (Fernsehturm)
- 3.) Exit at the station **Ruhbank (Fernsehturm)**
- 4.) Change to subway  U7 Direction Mönchfeld
- 5.) Exit at **Schlossplatz** or **Hauptbahnhof (Main station)**

Alternative 2:

- 1.) At the bus station **Universität Hohenheim**
- 2.) Take the bus  74 or  76 Direction Degerloch
- 3.) If you took:
 - a. bus  74 exit at the station **Degerloch ZOB**
 - b. bus  76 exit at the station **Epplestraße**
- 4.) Change to subway  U5 Direction Killesberg,  U6 Direction Gerlingen or  U12 Direction Remseck
- 5.) Exit at **Schlossplatz** or **Hauptbahnhof (Main station)**


Food and Drink

Each participant is responsible for his/her own food. During the days of class (Mo-Fri) the Mensa offers cheap lunch (approx. 3 EUR). Please see the current menu on „<https://www.uni-hohenheim.de/en/canteen>“ or in the Hohenheim App (iOS/Android). (Mensa opening hours: Mon-Thurs: 11:00 – 14:15, Fri: 11:00 – 13:45).

The Cafeteria and the Kiosk (opposite the main entrance of the Euro-Forum) offer small snacks throughout the day.


(Cafeteria opening hours: Mon – Thurs: 07:30 – 17:00, Fri: 07:30 – 15:00)

Shopping

There is a grocery store (**Edeka**) close to the university, opposite of the U-Bahn station  Plieningen. There are more shops in the immediate surroundings (Birkach, Plieningen) as well as in Stuttgart city center.

The closest grocery store from the Internationales Studierendenhotel is **Penny** (Neckarstraße 207, approx. 6 min by foot).

Bank

A “BW Bank” branch with ATM (24 hours) is located near the U-Bahn station  Plieningen.

Opening hours BW Bank:

Mon:	09:00-13:00 & 14:00-16:30
Tues:	09:00-13:00 & 14:00-16:30
Wed:	09:00-13:00 & 14:00-16:30
Thurs:	09:00-13:00 & 14:00-18:00
Fri:	09:00-13:00 & 14:00-16:30
Sat / Sun:	closed

Post office

There is a “Deutsche Post” service inside Heidis Wollelädle:
Birkheckenstraße 1, 70599 Stuttgart (opposite of PENNY supermarket)

Opening hours Heidis Wollelädle:

Mon:	09:00-13:00
Tues:	09:00-13:00 & 15:00-18:00
Wed:	09:00-13:00 & 15:00-18:00
Thurs:	09:00-18:00

Fri: 09:00-18:00
Sat / Sun: closed

Photocopier

You can use your Mensa card to scan and/or copy documents or books in the libraries or PC rooms. For legal reasons it is not allowed to copy materials from the language centre's "Mediathek".

Sports

The University of Hohenheim offers a variety of sports. More information about courses and facilities is available here:

<https://www.uni-hohenheim.de/en/university-sports>

Internet Access

WiFi on campus

You will have WiFi access on the university campus. In order to have a stable WiFi connection it is highly recommended to install the correct Eduroam settings on your notebook, tablet or smartphone. Afterwards, you only need to log-in with your personal Hohenheim account.

For your phone / tablet (Android / iOS)

Visit the KIM website: https://kim.uni-hohenheim.de/en/94983#jfmulticon-tent_c187181-4

And follow the installation guideline for your mobile device.

For your laptop (Windows / Mac / Linux):

Visit the eduroam Configuration Assistant Tool website: <https://cat.eduroam.de>

1. Select your language
2. Click on the center button "download your eduroam installer"
3. Type "Hohenheim" and select the University of Hohenheim
4. Click on the download button
5. Install eduroam (Run the installer)
6. Connect to WiFi network "eduroam"
7. Login with your details (you will be able to log in once your Hohenheim user account has been activated. You will receive an e-mail with a link to do so):
 - Log-in: [Hohenheim user account]@uni-hohenheim.de
 - Password: [Your Hohenheim password]

More details are available here:

<https://kim.uni-hohenheim.de/en/students-eduroam>

PC room 3/6/S10/Learning Center

There are many computer rooms on campus which you can use with your Hohenheim account.

Opening hours:

Mon – Fri: 08:00 – 19:00

Medical Service around the Internationales Studierendenhotel

General Practitioners:

Dr. med. Loukas Anastassiou
Werastraße 136
+49 0711 2623385

Dr./Univ. Banja Luka Vesna Kovacevic-Jaric
Schwarenbergstraße 69
+49 0711 2626467

Dentists

Ihre Zahnärzte Landhausstraße MVZ
Landhausstraße 74
+49 0711 285210

Dr. Christian Döring
Schwarenbergstraße 47
+49 0711 260029

Pharmacy

Stöckach-Apotheke
Neckarstraße 136
+49 0711 260023

Hospital

Karl-Olga-Krankenhaus
Hackstraße 61
+49 0711 26392406

Emergency Numbers

Police/Emergency Call: **110**

Fire dept./Rescue service: **112**

Medical Services around the University

General Practitioner:

Dr. Strobel

Wollgrasweg 17

Phone: +49 (0)711 455588

Dentists:

Zahnarztpraxis Schramm

Schilfweg 5

Phone: +49 (0)711 454887

Dr. Reith

Filderhauptstr.20

Phone: +49 (0)711 4570129

Pharmacies:

Garben-Apotheke

Wollgrasweg 17

Phone: +49 (0)711 4560020

Birken-Apotheke

Birkheckenstr. 8

+49 0711 456655

Important: The Summer School organizers do not provide medical insurance.

