

# Facing the Future: Special Issue Editorial

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Universities are normally associated with research and teaching. The classic image of a university includes dedicated researchers that share their insights with students, who will use the acquired knowledge to be better prepared for their future professional life in private organizations, public institutions, or self-employed arrangements. Recently, the list of functions for universities has been supplemented by the task of facilitating transfer, predominantly sharing knowledge and know-how with economic actors, but also giving evidence-based advice to decision-makers in politics, civil society, and the private sector. These three functions, research, teaching, and transfer are interconnected (at least in theory) but normally they are organizationally separated into different units, departments, and divisions. Each occupies its own silo with some ties to the other two.

From a human ecology perspective, this familiar image of a university and its functions has major flaws. First, it compartmentalizes the integrated nature of research, teaching, and transfer and treats them as separate entities. Secondly, it privileges academic knowledge over all other kinds of knowledge and puts it in the driver's seat for societal learning. Thirdly, it reinforces the impression that people of superior knowledge tell others with inferior knowledge what they should do.

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The human ecological perspective pursues a very different perspective and rationale. In this tradition, universities are open spaces for mutual learning. They provide opportunities for researchers, practitioners, students, policy-makers, and interested individuals to:

- i. share their insights, experiences, and observations
- ii. initiate discourses about the existing situation and contextual conditions
- iii. explore triggers and reasons for what they see is happening
- iv. define and frame existing or emerging problems, and
- v. develop mutually agreeable solutions for dealing with the problems that they had identified and characterized.

Such a learning experience based on mutual respect and the inclusion of diverse knowledge sources requires interdisciplinary and transdisciplinary methods of knowledge acquisition and sharing. Such a learning environment incorporates effective arrangements for exchanging different kinds of knowledge, designing discourse formats, integrating new actors and knowledge pools, and providing opportunities for learning by doing (research) and doing research by teaching and sharing experiences. Last, but not least, the transfer into society is not conceptualized as a one-way street from science into the rest of the world. Human ecology respects the knowledge and the practical experiences of non-academic actors and believes in the added value of mutual exchange and cooperation with all actors in society, as long as they are willing to get engaged in a joint learning experience.

This vision of a university dedicated to the ideals of a human ecological perspective inspired the three editors of this special issue to organize an international symposium entitled “Facing the Future: Human Ecology & Higher Education.” The symposium was organized by the European College of Human Ecology and the Institute for Advanced Sustainability Studies in Potsdam, Germany, from August 31 to September 3, 2022. The main purpose of the symposium was, first, to explore visions and concepts of how universities could act as learning spaces in the tradition of human ecology and, second, to exchange concrete experiences and lessons of how such concepts have been implemented in institutions of higher education. The comparative view of what needs to be done and what has been done paved the path to a general discussion of what representatives from universities and other institutions dedicated to education could and should do to bridge the gap between the ideal and the reality of pursuing a human ecological perspective for integrating and enhancing teaching, research, and transfer.

One result of the conference is the conviction that the Humboldtian<sup>2</sup> ideal of joint teaching and research should be revitalized. Research, however, should not take place in a quiet chamber, but should be oriented toward practice. Self-thinking

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2 Wilhelm von Humboldt (1767–1835)

and self-learning are important components of a person-centered education, and, consequently, it is appropriate to speak of “*Bildung*”—Humboldt’s concept of a holistic educational endeavor in which fundamental personal qualities, such as moral development and character, are cultivated in unity with knowledge and skills—rather than “education” in the international English discourse.

About 100 people from all inhabited continents attended the four-day conference live or virtually and shared their perspectives, experiences, and outlooks with the other participants. There were more than 60 contributions from 16 different thematic areas. They represented a broad spectrum of perspectives from countries around the globe, and they were complemented by workshops and breakout group discussions.

The conference talks and discussions revealed the diversity and depth of the problems of global change and included: the impact of climate change, the Agenda 2030, war and politics, transdisciplinarity, STEM education, digitalization, systems theory, environmental education, environmental justice, food security, and meal culture. Cross-cutting topics were also covered, such as the renewal of the *studium generale*, social innovation, the art of living, harmony with nature, and, finally, radical human ecology, which bridged the gap to human ecology as a social movement. With the exception of one voice from Australia, this special issue includes the highlights of the European contributions to the symposium.

The papers that emerged from the conference deal with topics relevant to higher human ecology education, transdisciplinary research approaches informed by human ecology, and proposals for human ecology curricula. They are ordered in such a way that more theoretical or philosophical topics are at the beginning and at the end, thus framing papers on more practical problems in the middle of the issue. The following is a brief overview.

Ulrich Loening, in his article, lists nine principles that govern the functioning of nature but are disregarded by our industrialized society. Perhaps the most important one is that natural processes largely take place in cycles. Consequently, because of constant reuse of discarded matter, there is hardly any waste. As industrialized people we tend to think in linear terms with corresponding results. We have also short-circuited the daily, monthly, and annual rhythms of nature. An agricultural example is the replacement of natural by artificial fertilizers.

With all the talk about sustainable development we should be able to assume that we are on the right track, but that is not the case, as Dieter Steiner explains in his first paper. It will not work as long as the economic dimension is given too much weight, in the sense that the solution to all problems is seen in a more consistent free market approach and development is understood as growth. What is missing is a connection to a cultural sphere that would orient us to the question of how we can be ecological beings on this planet.

The Russian aggression against Ukraine took us by surprise and forces us to think about the causes of war. Wolfgang Serbser points out that the more recent human ecology discussion has neglected this topic. But we can learn from writings by William James, George Herbert Mead, and Robert Ezra Park in the first half of the twentieth century that modern aggressive wars tend to be instigated by states whose societal development remains unstable. They foster a national identity based on differences of function instead of a social organization based on competing interests.

Higher education is called upon to break through the usual one-sided focus on specific vocational training and to give its graduates a broad interdisciplinary horizon, enabling them to participate in changing political and economic structures. Thomas Schmaus argues that a *studium generale* could serve as the necessary platform. This ties in with the old idea of a general education, imparting a wide range of knowledge, but also promoting personal development. In terms of content, Schmaus advocates a human ecological orientation.

Nooshin Torabi looks at two possible responses to climate change by local governments in the metropolitan area of Melbourne, Australia: a mere mitigation of impacts versus a process of adaptation with fundamentally changed value and governance systems. She finds that there is a lack of transformative efforts due to a focus on short-term goals. To correct this situation, university education programs should make sure that students gain the necessary understanding of which societal factors influence responses to climate change.

In the course of cultural evolution, relational structures in human systems have become ever more extensive and diverse. Felix Tretter, Gabriele Harrer-Puchner, and Karl-Heinz Simon explain how the resulting high degree of complexity can be handled well with system-dynamic modeling. This makes it possible to simulate various development scenarios quantitatively and thus gain ideas about possible futures. This avoids the danger of the directly observing human mind being tricked by the occurrence of counterintuitive behavior.

Maria João Horta Parreira explains that, when it comes to finding concrete solutions to problems on a local scale, the best way to do this is through a transdisciplinary process based on the concept of transformative socioecological innovation. Not only academic, but also non-scientific, practical, or traditional knowledge should be taken into account, as well as evaluative, ethical considerations. Bringing together different types of knowledge can be seen as an informative version of Elinor Ostrom's concept of common resources.

Dirk Marx proposes a transdisciplinary approach based on a four-stage process which he calls "TransLAB," aiming at a radical transformation of universities. The participants first become familiarized with the process structure. Then they are brought to open their minds in an "atmospheric" interlude. The third decisive step consists of integrating knowledge of different origins, evaluating its effect and the

direction of its developmental past as a matter of taking responsibility. On the basis of these three steps, the fourth step consists of setting up a target model for the envisaged transition.

A study design that breaks down the boundaries of a discipline by adding an “open” range of related courses is proposed by Tom Børsen and Jan Mehlich. Their guiding principle is the concept of “Responsible Research & Innovation,” which states that decisions should be based not only on scientific, technical facts, but also on aspects of social and environmental compatibility as well as ethics. Focusing on chemistry, the authors recommend the introduction of a course in which students are confronted with “challenge-based learning.”

As Fritz Reheis notes, a change of consumer behavior is often seen as a solution to the present crisis. This will not work, however, because of restrictive societal structures. The way out is a program of political education that turns mere consumers into sovereign citizens. They will be empowered to regenerate nature through time-related adaptation, to treat their fellow humans fairly and to bring themselves to a state of mindfulness and responsibility. An educational program corresponding to these ideas could find its place in a *studium generale*.

Rational approaches alone will not solve today’s problems. The nature of human existence tells us that we should rely also on practical, intuitional, and emotional knowledge. An example is provided by Joachim Schütz, who wonders how the threatening loss of species could be stopped. He advocates the consideration of the narrative culture of Indigenous peoples and, as an example, presents an Indian medicine wheel and its application. He shows how the consideration of individual and communal interests is extended by a reference to spirituality.

The way we deal with natural conditions is a consequence of a misguided worldview. Dieter Steiner, in his second contribution, tries to see the reason behind it. Human communities and societies are spanned between a mental or spiritual and a material pole. In the course of cultural evolution, the emphasis has shifted from the former to the latter. As a consequence, our present civilization stands on its head: Instead of being guided by the ecological wisdom of nature, we are induced to see it merely as a warehouse to be exploited.

As a result of the lack of harmony with nature mentioned in the first paper, our survival is ultimately in question. Ulrich Loening describes what a comprehensive, corrective education system looks like: At every university there is a human ecology center that provides the core of *Bildung*. Knowledge from various disciplines is combined with emotional, artistic, moral, and intuitive dimensions of access to the world, allowing a new way of thinking to emerge in a new worldview. Students are free to design their own study program and form a community with the teaching staff.