Chapter 1 Theoretical Reflections on Education for Sustainable Development and Digital Technologies

Ute Stoltenberg Leuphana University Lueneburg, Germany

Gerd Michelsen Leuphana University Lueneburg, Germany

ABSTRACT

In this chapter the author discusses the relationship between digitalization and education from the perspective of the concept of education for sustainable development. The aim is to counter a development that sees digitalization as a natural phenomenon or as inevitable technological "progress" to which education must respond. The starting point of the discussion cannot be the many possible applications of digital technologies and the question of how they can best support current educational practice, but instead an understanding of education that needs to be made explicit along with the educational goals associated with it. The international as well as national education policy benchmark for an education that prepares us to meet the challenges of the future is the concept of education for sustainable development. In this chapter is it shown, based on this concept of education, both the potential and the limitations of the use of digital technologies for the design of educational processes.

DOI: 10.4018/978-1-7998-5033-5.ch001

INTRODUCTION

Education in the Face of Societal Challenges

Since Agenda 21 was endorsed by nations in 1992, education has been understood as a prerequisite for a societal transformation toward sustainable development, one that requires far-reaching changes in how we treat nature as the foundation of life and how we realize human dignity and justice in our societies. An understanding of how educational processes and institutions can advance this transformation has taken place nationally and in international cooperation, especially with the support of UNESCO (e.g. Vare, Lausselet & Rieckmann 2022).

Today, we can describe goals, working methods, content-related tasks and perspectives that are regarded worldwide as fundamental elements of the concept of (ESD). Every individual should be empowered to participate together with others in shaping sustainable development: in everyday life, in an educational institution, at the workplace, in the community, as well as in the context of civil society and political activities. ESD aims at both individual and social learning. Such education and learning processes include the acquisition of knowledge, skills and perspectives needed to promote sustainable development. Transformative potential is developed by making both the critical analysis of non-sustainable practices and the opportunities to experience and shape real challenges and tasks of sustainable development an integral part of educational processes.

Perspectives on the world, values, subject matter and methods that are grounded in the concept of ESD underlie further discussion on the relationship between digitalization and education. Although many considerations will apply to any particular educational opportunity, a special focus is placed here on schools. After all, school is the place where values and world views are engaged and reproduced, thus stabilizing societal conditions. It should become a place that further opens perspectives for the future – in contrast to positions seeking to reduce the concept of ESD to simply adding new content to the curriculum, proclaiming their addition simply for economic and technological reasons.

EDUCATION FOR SUSTAINABLE DEVELOPMENT AND DIGITAL EDUCATION – TWO UNEQUAL PARTNERS

The concept of ESD is a response to societal processes that are not sustainable (Hopkins et al. 2020). However, this tension makes a discussion of the relationship between education and digitalization difficult, because the massive impact of digitalization – its focus on economic growth, high resource and energy consumption, the priority of efficiency as a goal – reinforces the very developments that underpin the need for sustainable development. Development based on digitalization¹ aims at speed, mass data processing and networking, and the implementation of short-term economic interests (e.g., promoting consumption of short-lived goods, replacing jobs through digitalization). It is used to screen and assess preferences, needs and life practices – which can serve as a type of control – as well as to influence political movements and decision-making, including elections, in a non-transparent way. For the individual, this development results in a loss of control of one's own data, a shifting of work to consumers, or even imperceptible influence through the allocation of information online (Lange & Santarius 2018), a list which by no means covers all aspects of the consequences of digitalization.

11 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/theoretical-reflections-on-education-forsustainable-development-and-digital-technologies/322115

Related Content

Comparison of Garbage Classification Frameworks Using Transfer Learning and CNN

Mahendra Kumar Gourisaria, Rakshit Agrawal, Vinayak Singh, Manoj Sahniand Linesh Raja (2022). International Journal of Social Ecology and Sustainable Development (pp. 1-23). www.irma-international.org/article/comparison-of-garbage-classification-frameworks-using-transfer-learning-andcnn/313973

Diffusion and Adoption of Innovations for Sustainability

Helen E. Mugaand Ken D. Thomas (2014). Sustainable Practices: Concepts, Methodologies, Tools, and Applications (pp. 185-200).

www.irma-international.org/chapter/diffusion-and-adoption-of-innovations-for-sustainability/94930

Framework Oriented Approach to Eco-Tourism

Sanjay Mohapatraand Tripti Naswa (2013). *International Journal of Green Computing (pp. 71-82).* www.irma-international.org/article/framework-oriented-approach-eco-tourism/80240

Society 5.0: The Game Changer for Achieving SDGs and the Green New Deal

Sanusi Mohammed Sadiq, Invinder Paul Singh, Muhammad Makarfi Ahmadand Ummulqulthum Ndatsu Usman (2024). *Convergence Strategies for Green Computing and Sustainable Development (pp. 17-51).* www.irma-international.org/chapter/society-50/343499

MOOCs Business Models

Amir Manzoor (2020). Sustainable Business: Concepts, Methodologies, Tools, and Applications (pp. 1189-1214).

www.irma-international.org/chapter/moocs-business-models/232847