

ECNU Review of Education Unveils Pathways for Transformation in Education

The study offers insights into the necessary paradigm shifts in education to better prepare students for the age of Artificial Intelligence

SHANGHAI, CHINA, April 30, 2025 /EINPresswire.com/ -- Traditional educational systems focused on prescribed, curriculum-defined courses of study impose societal expectations and limit student autonomy and personalized learning. To propose radical transformation to current educational systems, a team of researchers conducted an ecological analysis. Their proposed 'school within a school' approach can aid the utilization of artificial intelligence tools in education and equip students to face the challenges of the modern age.



Transformational changes to educational systems such as personalized learning and artificial intelligence partnership can enable students to have more autonomy of their learning and help in facing the challenges and uncertainties of the modern age.

Education, or the process of teaching knowledge and skills in schools, plays an important role in the development of an individual's personality. Over the years, various systems of education, such as the Montessori method and the Dalton Plan, have emphasized student autonomy, independence, and responsibility in the learning process. Despite numerous initiatives to provide students more control of their learning, the traditional educational system limits student autonomy and learning preferences. However, recent advances in technology-driven education and artificial intelligence (AI) have necessitated the need for personalized learning practices.

To analyze educational reforms, especially transformational changes, and propose a novel approach to personalized learning, a team of researchers comprising Yong Zhao from University of Kansas and Ruojun Zhong from YEE Education has conducted an ecological analysis of the present educational landscape. Their study was published online in <u>ECNU Review of Education</u> on October 31, 2024.

"Educational innovators have long attempted to change the system to give students more control over their learning. But the traditional curriculum, rooted in the Prussian model, has remained a stubborn anchor, resisting paradigm shifts and transformational changes," comments Zhao, elaborating on the need for novel approaches to educational practices. "Our study proposes a "school within a school" approach, allowing for small changes to potentially affect entire systems."

Delving into the challenges in current educational systems, the authors have identified the prescribed curriculum (defined and prescribed course of studies) in schools as the key to driving transformational changes. Furthermore, they explain that while paradigm shifts can occur in schools, such changes cannot be imposed by external systems, which are typically ill-equipped to propose transformational changes.

The researchers highlight that despite significant reforms in curriculum, testing methods, and pedagogy —the method and practice of teaching, the essence of schooling remained unchanged for more than 200 years. Moreover, in today's age of AI, there is an urgent need for schools to operate with a different education paradigm, enabling students to have more autonomy and control over their learning in the uncertain age of AI.

Altering the prescribed curriculum and incorporating changes to the traditional system of education can provide opportunities and time for students to take control of their learning. "Panarchy theory, a conceptual framework for hierarchical systems, emphasizes cross-system linkages through which process at one scale affect those at other scales to influence the overall dynamics of a system. With such an approach, we can enable schools to evolve, providing the best education possible for all students in the age of AI," shares Zhong. However, implementing these ideas demands a paradigm shift that schools, as resilient social entities, are capable of undergoing.

The researchers have utilized the conceptual framework of panarchy and adaptive cycles from ecology to propose paradigm shifts that can transform educational systems. Notably, resilience, adaptability, and transformability—three key concepts related to socio-ecological systems—were employed to study transformational innovations in education.

The originality of the present study lies in its fresh perspective on making much-needed transformational changes possible in schools. It brings to the forefront key concepts such as AI partnership, personalized learning, student autonomy, and self-directed learning, which could revolutionize education for all students.

Furthermore, Zhao and Zhong highlight several real-world examples of novel educational systems that have enabled personalized learning via the "school within a school" approach. The authors conclude by underscoring the need for transformational changes to start small, focusing on the anchor element, and gradually developing to affect the entire educational system.

This study provides novel insights and approaches to transform modern-day education systems to better prepare students for the uncertainties and challenges of the future.

Reference Titles of original papers: Paradigm Shifts in Education: An Ecological Analysis Journal: ECNU Review of Education DOI: <u>10.1177/20965311241296162</u>

Melody Zhang ECNU Review of Education +86 21 6222 4545 roe@ecnu.edu.cn Visit us on social media: X

This press release can be viewed online at: https://www.einpresswire.com/article/808046297

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire[™], tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information. © 1995-2025 Newsmatics Inc. All Right Reserved.