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Higher Education in the Digital Age Between Technology and the Didactic Relationship: Examining Polish Higher Education*

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Abstract

This article examines the challenges faced by Polish higher education in the context of global digitization and the transformation of academic teaching models. It assumes that the master–student relationship remains the foundation of academic education, and that digital technologies—if properly integrated—may support rather than replace human interaction. Based on a comparison of teaching practices in Poland and at leading institutions (Harvard, Oxford, MIT), a model of relational-technological didactics is proposed, along with the conditions necessary for its implementation. The article integrates pedagogical and sociological perspectives, highlighting the need for systemic changes in Polish academic education.

Keywords: university, digitization, relational didactics, mentoring, higher education.

Introduction

Polish higher education currently faces a fundamental strategic dilemma: whether its primary function should remain the training of specialists adapted to the demands of the labor market, or the simultaneous formation of individuals capable of independent thought, responsibility, and building social relationships based on dialogue and trust.

Dynamic digitization—accelerated particularly during the COVID-19 pandemic—has significantly altered the nature of the didactic relationship (Statistics Poland, 2023). Remote teaching, the platformization of instruction, automated assessment, and reduced direct consultation have weakened the traditional model of contact between the academic teacher and the student (Nowicka & Laskowska, 2023).

Although technologies were introduced as organizational solutions, their application often overlooks a key component of the learning process—interpersonal relationships. As a consequence, not only is the quality of education weakened, but also the formative dimension of academic education which, in the classical view, constitutes the foundation of the university ethos (Biesta, 2010).

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This article employs comparative analysis and a review of selected qualitative studies and case studies concerning didactics in Poland and foreign universities. Special attention is given to tutorial models used at Harvard and Oxford (Seldon & Finn, 2022), as well as to the use of artificial intelligence in MIT's teaching practices, which—importantly—supports rather than replaces the teacher (MIT Integrated Learning Initiative, 2024).

The starting premise is that the master–student relationship is an indispensable element of academic education, and that digital technologies can play a supporting role if their implementation is grounded in a reflective didactic philosophy. The subsequent sections analyze:

major challenges associated with the digitization of Polish higher education,

examples of good teaching practices in Poland,

relational models used at global universities,

a proposal for an integrated relational-technological didactic model.

The Crisis of Relational Didactics in Poland

Although digitization and remote instruction were presented as opportunities for modernizing Polish universities, their implementation in practice has usually taken place without deeper pedagogical reflection. Technologies have been treated primarily as organizational tools intended to streamline the logistics of the teaching process, rather than enhance its quality (Kowalski, 2024). This manner of implementation has gradually weakened the relational component, which remains crucial for a student's academic development.

Unlike institutions such as Harvard Kennedy School, where every instructor undergoes mandatory training in academic pedagogy (Harvard Gazette, 2023), Polish universities place primary emphasis on the technical operation of educational platforms. Didactic competencies—including the ability to conduct dialogue, engage students, and individualize the learning process—are marginalized.

Standardized assessment formats, such as multiple-choice tests, also dominate, limiting the development of analytical, argumentative, and interpretive skills (Nowicka & Laskowska, 2023). Students become recipients of content rather than co-creators of the didactic process.

Data from Statistics Poland (2023) indicate that 62% of students participated in courses conducted partly or entirely online. Qualitative research at SWPS University shows that 48% of students experienced deterioration in relationships with lecturers after transitioning to remote learning (Nowicka & Laskowska, 2023). These results align with Biesta's (2010) claim that education loses its meaning when it focuses solely on measurable learning outcomes while ignoring the relational character of learning.

In the Polish context, teaching increasingly takes the form of passive content consumption:

students limit themselves to reading slides,

they ask fewer questions,

they rarely participate in discussions,

they infrequently engage in independent interpretation or problem-solving.

As a result, the foundation of academic education—conversation, reflection, and critical thinking—weakens.

Simultaneously, administrative burdens placed on instructors continue to increase. Reports, surveys, and bureaucratic procedures limit the time available for individual student contact. As Seldon and Finn (2022) observe, at universities such as Oxford, the quality of instruction depends not on "productivity" understood as the number of hours taught, but on the quality of dialogue and the teacher's personal presence.

Marginson (2023) adds that contemporary universities face a strategic choice between strengthening the communal character of education and succumbing to proceduralism and transactionalism. In Poland, a trend toward the latter is observed, while relational models remain mostly confined to niche experimental initiatives.

Good Practices in Polish Universities

Despite the challenges outlined above, Polish higher education has seen the development of initiatives that constitute valuable examples of didactics based on relationships, dialogue, and personalized learning. Although these initiatives are typically local, they demonstrate that integrating technology with relational didactics is possible and can produce measurable results.

Collegium Artium Tutoring Program (Jagiellonian University)

One of the most advanced examples of relational didactics in Poland is the Collegium Artium Tutoring Program, inspired by the Oxford model. Each student works under the supervision of a tutor who conducts regular consultations, reviews essays, and moderates discussions on texts. The program emphasizes:

individualized learning,

development of critical thinking,

preparation for research work,

a partnership-based master–student relationship.

Kowalski (2024) notes that this model significantly improves the quality of education, particularly in the areas of reflection, argumentation, and intellectual independence.

Dialogue Laboratories (University of Warsaw)

Dialogue Laboratories are interdisciplinary learning environments where students from various programs work in small groups on shared projects. These classes emphasize:

interfaculty collaboration,

interpersonal communication,

problem analysis,

empathy and perspective-taking.

According to Nowicka and Laskowska (2023), such didactic formats significantly increase student engagement and agency. Compared to traditional lectures, students more frequently initiate discussions, ask questions, and demonstrate greater ownership of the learning process.

Mentoring Programs at Non-Public Universities

Non-public institutions such as SWPS and Collegium Civitas have implemented extensive mentoring and tutoring programs in which the didactic relationship is treated as a central element of student development. These programs include:

individualized academic support,

consultations regarding career pathways,

psychological and coaching support,

development of soft skills.

Qualitative research conducted by CBOS (2024) shows that students participating in mentoring programs report higher psychological well-being, a stronger sense of belonging to the academic community, and greater engagement in their studies.

Common Features of Good Practices

Analysis of these initiatives reveals three shared characteristics:

Subject-centered approach to the student
Students are not passive recipients of content but active co-creators of the learning process.

Dialogue-based didactics
Classes revolve around collaborative problem-solving, discussion, analysis, and perspective exchange.

Integration of supportive technology
Digital tools serve to:
– coordinate activities,
– provide access to materials,
– organize meetings,

but do not replace the teacher–student relationship.

Nowicka and Laskowska (2023) emphasize that relational didactics also benefits student mental health, reducing feelings of isolation and increasing motivation—an essential counterbalance to the adverse effects of remote learning.

Although relational initiatives remain marginal at the systemic level, their success proves that revitalizing academic didactics is feasible and scalable, provided adequate institutional support, teaching grants, reforms in academic evaluation, and the inclusion of mentoring and small-group work into core curricula.

Inspirations from Global Models of Higher Education

An analysis of teaching practices at leading universities worldwide reveals that, despite extensive digitization, these institutions have not abandoned the fundamental teacher–student relationship. Technology plays a supportive role rather than replacing human presence. These models offer substantial inspiration for Polish higher education.

Harvard University – Instructional Intimacy

Harvard maintains a strongly relational teaching philosophy known as instructional intimacy. A key component is the tutorial—classes conducted in very small groups (1:2 or 1:3), enabling a partnership-based relationship between student and instructor. As the Harvard Gazette (2023) notes, such formats:

increase student engagement,

strengthen intellectual independence,

promote argumentative competence.

Additionally, Harvard instructors undergo systematic training in university pedagogy, including strategies for dialogue, tutoring, and small-group teaching. The ability to build didactic relationships is treated as a core professional competence.

University of Oxford – The Tutorial as a Foundational Pedagogical Model

Oxford employs one of the world's most advanced relational teaching models. Tutors work individually or in pairs with students, who prepare an essay for each meeting to serve as a basis for discussion. The tutorial constitutes:

an intensive form of dialogue,

a method for developing analytical, interpretative, and argumentative skills,

a space for intellectual, emotional, and social formation.

Seldon and Finn (2022) emphasize that the tutorial is not a method of assessment but a developmental environment. There is no "mass education"—the primary measure of quality is presence and relationship.

Stanford University – Integrating the Humanities and Technology

Stanford has developed the Deep Learning in Human Contexts model, in which educational projects are carried out by interdisciplinary teams of students from computer science, engineering, anthropology, sociology, and cultural studies. The goal is to teach:

critical thinking,

integration of technological competence with humanistic reflection,

teamwork abilities,

social responsibility.

According to Stanford Teaching Commons (2024), this approach helps students better understand the social and ethical implications of technology.

Massachusetts Institute of Technology (MIT) – Integrated AI-Supported Teaching

MIT has implemented the Integrated Learning Initiative (ILI), combining artificial intelligence with academic mentoring. AI is used to:

diagnose learning difficulties,

personalize learning pathways,

monitor student progress,

support instructors during consultations.

Importantly, AI does not replace the instructor; it enhances their didactic capacity. MIT (2024) stresses that the best outcomes occur when AI supports, rather than substitutes, relational processes.

Common Denominators of Global Practices

Three universal conclusions emerge:

The relationship is the foundation of high-quality teaching.
Technology is meaningful only when it strengthens dialogue and interaction.

Small groups and tutoring are keys to deep learning.
Leading universities invest in time-intensive but highly effective didactic formats.

The humanities are essential in technological education.
Technical competence without humanistic reflection leads to incomplete education.

OECD (2024) reports that universities investing in relational didactics achieve:

greater learning effectiveness,

higher student engagement,

reduced risk of isolation and mental health issues.

These insights strongly support adapting such models within Polish universities.

Proposal for a Relational-Technological Didactic Model

In response to the challenges and global inspirations discussed above, this article proposes an integrated didactic model acknowledging both the importance of interpersonal relationships and the potential of digital technologies. The model rests on the assumption that technology should support, not replace, the academic teacher.

The model includes four pillars:

personalization of the teaching process,

technology as a tool supporting relationships,

education for community,

new criteria for evaluating teaching quality.

Personalizing the Didactic Contact

The leading recommendation is to shift the balance from mass instruction toward micro-group work. Mass lectures—particularly online—do not promote active learning or academic bonding (Biesta, 2010). Therefore, the model recommends:

systematic use of academic tutoring,

regular one-on-one consultations,

project-based classes in small teams,

integration of mentoring as a compulsory curricular component.

The Oxford tutorial model—widely viewed as the most relational teaching form—demonstrates that small-group work fosters deep reflection and critical thinking (Seldon & Finn, 2022).

Technology as Support, Not Substitute

Digital technologies should function as supportive tools that:

streamline communication and organization,

enable personalized learning,

facilitate diagnosis of student needs,

expand access to educational resources.

The MIT ILI program is an example in which AI enhances personalized learning without undermining the teacher–student relationship.

Recommendations include:

limiting standardized tests in favor of projects and discussions,

using platforms as spaces for exchange rather than content repositories,

implementing AI tools that support rather than evaluate students.

Education Toward Community

Relational didactics views education as both individual and social. Learning occurs within relationships—both with instructors and peers. The model, therefore, promotes:

interdisciplinary project teamwork,

problem-based seminars,

dialogue laboratories,

development of empathy, communication, and responsibility.

Stanford's integration of humanities and technology exemplifies how teamwork fosters essential social competencies.

New Criteria for Teaching Quality

Current Polish evaluation systems rely on measures such as:

teaching hours,

student surveys,

ECTS allocation.

According to OECD standards, these indicators are insufficient (OECD, 2024). A relational model must assess:

Intensity and quality of the didactic relationship, including:
– number and quality of consultations,
– mentoring engagement,
– didactic responsiveness.

Social and formative outcomes, including:
– student integration into the academic community,
– development of soft skills,
– independence and critical-thinking abilities.

Quality of didactic methods, including:
– dialogical approaches,
– methodological diversity,
– reflective components.

OECD (2025) concludes that universities redefining teaching quality in relational terms achieve long-term gains in both educational outcomes and student well-being.

Conditions for Implementing the Model

Implementing the relational-technological teaching model in Poland requires strategic decisions, cultural change, and a redefinition of the academic teacher's role. Although the solutions proposed do not demand radical structural reforms, they do require deliberate systemic action from university authorities and the ministry.

Changing Institutional Priorities

Currently, Polish universities focus largely on:

fulfilling reporting requirements,

optimizing administrative work,

improving evaluation metrics,

mass instruction.

The relational-technological model requires shifting priorities toward:

quality of didactic relationships,

development of pedagogical competencies,

promotion of dialogue and tutoring,

investment in small-scale teaching formats.

Marginson (2023) argues that universities should shape a "new social contract" in which academic education encompasses intellectual and social formation.

Establishing Centers for Relational Didactics

Many countries operate specialized units responsible for developing teaching competencies, such as:

MIT Center for Teaching and Learning,

Oxford Learning Institute,

Harvard Derek Bok Center for Teaching and Learning.

These centers offer:

pedagogical training,

communication and mentoring workshops,

didactic supervision,

research on teaching quality.

Poland could benefit from similar institutions that foster professional competence in tutoring, micro-group teaching, course design grounded in dialogue, and thoughtful use of technology.

Reforming Teacher Evaluation Criteria

If mentoring, tutoring, and relational work are not included in evaluation systems, they will remain informal and optional activities. OECD (2024, 2025) recommends that evaluation systems reward:

quantity and quality of consultations,

student development engagement,

use of active-learning methods,

individualized teaching approaches,

interdisciplinary collaboration.

Finland demonstrates that rewarding mentoring quality increases teaching effectiveness (OECD, 2025).

Teaching Grants and Innovation Funding

Relational didactics requires more time, smaller groups, and individual work. Dedicated funding is necessary to support:

tutoring development,

dialogue laboratories,

interdisciplinary project teams,

AI tools that support rather than automate teaching.

MIT's experience shows that technology requires parallel investment in teacher development.

Educational Contracts and Clear Collaboration Rules

Denmark and Finland employ "educational contracts" outlining:

student obligations,

instructor obligations,

consultation frequency,

communication standards,

assessment principles.

Introducing such contracts in Poland could:

enhance transparency,

clarify expectations,

reduce conflicts,

increase student responsibility.

Organizational Culture Supporting Relationality

The greatest obstacle to relational didactics is organizational culture, which:

favors mass instruction,

prioritizes reporting,

marginalizes pedagogy as a professional competence.

Seldon and Finn (2022) claim that institutions like Oxford maintain high teaching quality because the master–student relationship is central to their identity.

Poland needs a similar mental shift: relationality must be viewed as a strategic asset, not a cost.

Conclusion

Polish higher education is at a turning point requiring renewed reflection on the university's mission. Digitization offers organizational benefits, wider access to content, and administrative efficiency, yet in its current form it risks marginalizing the foundational dimension of academic education—the master–student relationship.

Comparative analysis shows that leading universities—Harvard, Oxford, MIT, Stanford—embrace technology while maintaining personalization, mentoring, and dialogue. Technology strengthens relational didactics rather than replacing it. These practices demonstrate that, in the digital age, the teacher–student relationship can be maintained and even deepened.

Poland must undertake systemic actions enabling:

development of dialogue-based didactics,

mandatory tutoring and mentoring,

interdisciplinary teamwork,

thoughtful integration of technology and AI,

reform of teacher evaluation systems so relational work becomes visible and valued.

Humboldt (1970) notes that the university's purpose is cultivating independent reasoning. Feynman (1985) adds that the lecture is an invitation to think, not merely a transfer of information.

The future of Polish universities depends on recognizing that relationality is a strategic resource. Digitization becomes an opportunity rather than a threat only when directed toward human development rather than algorithmic efficiency.

A university that abandons relationships abandons its responsibility. Meeting contemporary challenges requires integrating two dimensions: innovative technologies and the humanistic ethos of education. Only this integration enables a model of education suited to the real needs of students and the demands of the twenty-first century.

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