

New trends in Teaching the Subject of Information Society

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DOI: <https://doi.org/10.53349/re-source.2026.is1.a1547>

Abstract

This paper explores emerging trends in the teaching of the subject *Information Society*, highlighting how rapid technological developments and societal shifts are reshaping educational approaches. The study examines key pedagogical innovations, including the integration of artificial intelligence (AI), blended and hybrid learning environments, mobile and immersive technologies, and an increased emphasis on digital, media, and information literacy. It also addresses the growing importance of teaching ethical, civic, and critical perspectives on digital life, data use, and online communication. These trends reflect a broader shift from traditional, skills-based instruction toward learner-centered, interdisciplinary models that prepare students for active participation in a digitally connected world. The paper concludes by identifying the challenges educators face—such as digital equity, teacher training, and curriculum relevance—and offers recommendations for adapting teaching practices to meet the needs of the 21st-century information society.

When enrolling in a course, it is essential to address learners' initial motivation, the evaluation and classification of individual modules, and the process of familiarization with the curriculum. For teachers to guide students in using the internet as part of the learning process, they must first develop strong ICT and digital literacy competencies. This includes acquiring the ability to understand and explain fundamental concepts related to ICT and digital technologies, use computers and digital devices effectively, work with datasets and textual materials, create and interpret tables, charts, and figures, manage databases, develop presentations, and obtain, share, and communicate information. Furthermore, teachers should be able to use the internet proficiently, manage email communication, and create digital content such as web pages, blogs, and vlogs.

Keywords: Different Learning, Innovative Teaching Methods, Information Society

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1 Introduction

In the 21st century, the rapid advancement of digital technologies has fundamentally transformed the way individuals' access, process, and share information. As societies become increasingly interconnected and data-driven, the concept of the "information society" has emerged as a central theme in understanding modern social, economic, and cultural dynamics. Teaching the subject of the information society is therefore more important than ever, as it equips learners with the critical skills and knowledge needed to navigate and contribute to a world shaped by information and communication technologies (ICTs).

However, traditional approaches to teaching this subject are no longer sufficient in addressing the evolving realities of digital life. Emerging technologies, shifting digital literacies, and new societal challenges demand updated pedagogical strategies. Recent trends in education—such as interdisciplinary learning, project-based approaches, integration of real-world digital tools, and a stronger emphasis on ethical and societal impacts of ICT—are reshaping how the information society is taught across different educational levels.

This paper explores recent trends and innovations in the teaching of the *Information Society* as an academic subject. It examines how contemporary educational practices are adapting to the complexities of digital transformation and considers the implications for both educators and learners in preparing for an increasingly digital future.

2 Quality of Education

Using the concepts of quality and efficiency are indeed very frequent, but often, without a clearer definition. Especially with the introduction of globalization, the concept of quality occurs in virtually all areas of human activities, including education. Education is a service provided by an educational institution. Firstly, it is important to note to whom this service is intended and what its purpose is. Furthermore, it is imperative to understand that learning cannot be assumed clearly as an economic standpoint. The level – quality of education may be evaluated, but more subjectively, qualitatively than objectively and measurably, continuously and long term. The specific of higher education is its 'optional nature' (Szókö, 2016).

Key Indicators of Quality Education

1. **Trained and Motivated Teachers:** The presence of well-trained, competent, and motivated educators is essential. Teachers must also be equipped with ongoing professional development opportunities.
2. **Relevant Curriculum:** The content taught must reflect real-world challenges, be culturally relevant, and prepare students for both local and global citizenship.
3. **Safe and Inclusive Learning Environments:** A supportive atmosphere — free from discrimination, bullying, and violence — is critical for effective learning.

4. **Access to Learning Resources:** Quality education requires access to books, technology, and modern tools that facilitate deeper understanding and engagement.
5. **Student Engagement and Learning Outcomes:** Measuring not just attendance but the actual outcomes — such as literacy, numeracy, critical thinking, and emotional intelligence — is essential.

In education the term quality (quality management) refers to several elements, mostly to:

- **The educational system** constitutes a fundamental factor in a country or region’s overall development. Its quality is determined by clearly defined goals and educational philosophy, the content and structure of education, principles of governance and financing, the inclusion of children, youth, and adults, the accessibility of qualifications, and the flexibility and openness of the system. Enhancing the quality of a national educational system requires international comparability of performance, which can be achieved through participation in large-scale international assessments such as PISA and TIMSS.
- **School (school facility):** As discussed above, the level of educational quality—shaped by factors such as declining student populations, competition for enrolment, and per-pupil funding—is critical to the sustainability of schools. Each school should therefore develop and implement its own quality management system that governs all institutional processes and involves all members of the school staff.
- **Teaching process:** The teaching process is the most important of all processes at school and therefore its quality is a crucial element for the quality of schools. The quality of the teaching process in the subjects they teach can also increase the individual teacher (group of teachers) if the school has still not implemented quality management.
- **Learning of pupils and students:** The quality of learning of pupils and students is the culmination of efforts to increase the quality of education. The aim should be to make pupils, students acquire rational ways of learning - learning competences, to be aware of their preferred learning style and implement it, as well as metacognition and meta-learning to implement an in-depth approach to learning. The result should be a strategically focused student, someone, who wants to take responsibility for managing their learning, which is learned, and can manage their own learning, which is able to optimize their learning in school, out of school and after their school era. Such pupils and students have the greatest chances of success in the current, constantly and rapidly changing world, because they will be more successful in lifelong learning (Horváthová, 2011).

3 The Concept of the Information Society

The concept of the Information Society refers to a type of society in which the creation, distribution, and manipulation of information has become the most significant economic,

cultural, and political activity. It's a central theme in modern social theory, media studies, communication, education, and digital policy.

Dimensions of the Information Society

1. Economic – Rise of IT industries, digital markets, remote work, and gig economy
2. Educational – Digital learning, lifelong learning, digital literacy, and open access to knowledge
3. Social – Online communities, social media, digital identities
4. Political – E-government, digital activism, cyber-surveillance, and digital rights
5. Cultural – Global cultural exchange via digital media, remix culture, digital storytelling
6. Ethical – Issues around privacy, surveillance, misinformation, algorithmic bias, digital divide

Criticisms and Challenges

- Digital Divide: Not everyone has equal access to information or technology (locally or globally)
- Surveillance & Data Privacy: States and corporations have unprecedented control over personal data
- Information Overload & Misinformation: The abundance of content can lead to confusion or manipulation
- Inequality: Benefits of the information society are not evenly distributed—both economically and socially
- Algorithmic Control: Algorithms shape what people see, buy, believe—raising ethical and democratic concerns

Relevance in Education: In education, teaching about the information society means:

- Understanding how information is created, distributed, and controlled
- Teaching digital literacy, media literacy, and critical thinking
- Preparing students to participate ethically, safely, and effectively in a digital world
- Reflecting on the social impacts of technology on work, identity, culture, and democracy

From a social perspective, the information society is characterized by the growing role of informatics and information and communication technologies as a major economic force. These technologies shape and transform the entire social system and facilitate the emergence of new social, supraclass, and supranational structures, thereby fundamentally altering the mechanisms of social development.

Challenges of the information society and further directions of development have been the subject of several papers at the international and national level. The following ones have an important role within the frame of documents of national character:

- Policy of Informatizing Society in the Slovak Republic for the years 2022 – 2025 with a view to 2030.
- National Action Programme of Society Informatization
- Millennium – National Programme of Education in the Slovak Republic for the next 15 to 20 years (10-13)

The main benefits of the information society are:

- making available the usage of information sources and their tools by the public,
- expansion and improvement of means of services and entertainment,
- promotion of education,
- new opportunities for the application of human creative abilities, as well as the employing of handicapped people in life through "teleworking"
- increasing of cultural traditions and identity of regions,
- more efficient state administration,
- more effective management of enterprises, improving competitiveness, facilitating of connection between the manufacturer, service provider and the customers themselves,
- new services in the telecommunications and new markets in the field of software,
- more effective health care.

Information Society was firstly taught at the Trnava University in winter semester of the academic year 2024/2025. Since the subject of Information Society was not included in the accredited programs, the content of the course was divided into several subjects.

Most of the topics were included in the basic subject of Information and Communication Technologies, taught in the first years of education at the Faculty of Education of the Trnava University in Trnava. Part of the topics appears in the continuing subject of Information and Communication Technologies II. The subject of Informatics is taught only one semester at the Faculty of Education so only four modules of Information Society are taught by means of presentations. Individual modules were evaluated based on tests, which had to be passed by all the students as the procedure within the exam. Tests were carried out in the LMS environment of Moodle, where the teacher could exactly evaluate the different parts and process the percentage of success.

Thematic unit on e-learning has found its place in the subject Didactics of Informatics, which is an organic part of the Master Teacher Training program. Thematic unit on legal standards of information society forms a part of the subject called Law and Ethics in the Use of Information and Communication Technologies.

Course: Developing information literacy

From our previous experience of working with students and execution of subjects in the first years, it shows that students come to college with ever-improving skills of ICT. Not always,

however, are these skills sufficiently comprehensive and are usually associated only with general information literacy. Our aim is to develop these skills in students and shape subject information literacy.

The course will take the form of e-learning as part of the subject Information Society. Since we believe it is necessary to convey the students the following information as soon as possible, we have chosen Information Society as a reference subject, due to its concentration on first-year students on the Faculty of Education.

The course is made up of five modules. Modules that are used as a proposal for teaching e-learning courses have specifically defined instructions for studying introduction, module objectives, content and performance standards, instructional text, summary, auto-test, additional literature, conclusions, and bibliographical references (Szókö, 2010).

Individual modules are completed with a self-test summarizing the discussed curriculum. After the successful completion of this test, students will be able to advance to the next module. At any timeframe of the program, students will be able to use electronic consultations (Szókö, 2010).

The study support of each module is divided and structured so that the acquisition of knowledge and the creation of knowledge by the study participants work with maximum efficiency. Efficiency lies mainly in the fact that the study participants can fully engage in the study of the educational content because it is not constrained by directed learning, as the study text includes features allowing rapid and accurate autoregulation. Participants in the study, after applying for the subject (course) receive the study materials.

4 Results and Discussion

The questionnaire included four teacher competences that are closely related to internationalization of education:

Communication in foreign languages, digital competence, interaction skills, and cooperative skills. The averages for each listed competence were calculated from the questionnaire. We can conclude that none of the listed competences reached worse than 3 points average – this means that the respondents consider them at least as important or higher.

Communication in foreign languages is based on the ability to understand, express, and interpret concepts, thoughts, feelings, facts, and opinions in both oral and written form in an appropriate range of societal and cultural contexts (in education and training, work, home, and leisure) according to needs. Competence in foreign languages requires knowledge of vocabulary and functional grammar and an awareness of the main types of verbal interaction and registers of language. Knowledge of societal conventions and the cultural aspect and variability of languages is important. Essential skills for communication in foreign languages consist of the ability to understand spoken messages, to initiate, sustain and conclude conversations and to read, understand and produce texts appropriate to the individual's

needs. A positive attitude involves the appreciation of cultural diversity, and an interest and curiosity in languages and intercultural communication European Communities (2007).

Digital literacy involves the ability of confident and critical use of IST (Information Society Technology) for work, leisure and communication. It is underpinned by basic skills in ICT: the use of computers to retrieve, assess, store, produce, present, and exchange information, and to communicate and participate in collaborative networks via the Internet European Communities (2007). Using ICT can be easily and quickly connect with people from abroad and so consult with experts or obtain new information to learn. However, the information is mostly not available in national language.

Interaction skills are a part of interpersonal skills. Interpersonal interaction is a communication process that involves the exchange of information, feelings and meaning by means of verbal and non-verbal messages, between two or more persons (teacher and children, or teacher and others). Children learn and develop by interacting with teachers, each other, family and other persons. Adults who are respectful listeners and keen observers, who are prepared to negotiate, who change their practice, and who make meaning with children are those who are most responsive to them. They know the children well, are sensitive to their current level of understanding, know their interests and intentions, and pitch activities and experiences which are just beyond what they can currently do and understand so that they can extend their learning. Their interactions promote children's learning and development and help children to reach their full potential (Ugrai, 2020).

Cooperative skills are a skill set everyone needs to be able to cooperate effectively – i.e. work with others in a collective, non-hierarchical, democratically managed organizational structure. The cooperating teacher has the greatest and longest-lasting influence on not only the student teaching experience but also the aspiring teacher's growth and development long after student teaching has ended (Benedek, 2015).

In our research of all monitored key competences, teacher competences, skills, knowledge and other attitudes *communication in the mother tongue* reached the highest preference. Similarly, it was ranked first in the competence survey provided by Szőköl (2016) conducted by practicing teachers in Hungary. Overall, we found that our results and results by Szőköl (2016) in terms of the most preferred teaching competences are very similar.

Only three competences reached the average value of 4.5 points: *communication in the mother tongue*, *ability to take responsibility* and *expertise*. Similarly, *interaction skills* and *cooperative skills* got high scores in our questionnaire as well (Tab. 1).

However, the lowest value (3.21 points) in our survey was achieved by *mathematical competence and basic competences in science and technology* – even though this competence also belongs to key competences. Although the preference for *digital competence* is higher

than *mathematical competence and basic competences in science and technology*, but it is also very low, on the 33rd place in the ranking of all forty observed key competences, teacher competences, skills, knowledge and other attitudes. In the list of eighteen competences published by Bendíková (2014) *digital competence* is ranked in 16th place with 3.65 points. Basic statistical evaluation of four selected teacher competences of the research is presented in Table 1.

Key competences, teacher competences	Maximum	Minimum	Range	Modus	Mean	Variance	Standard deviation	Median
Communication in foreign languages	5	2	3	4	3.73	0.70	0.84	4.00
Digital competence	5	2	3	3	3.56	0.62	0.79	3.50
Interaction skills	5	2	3	5	4.41	0.52	0.72	5.00
Cooperative skills	5	2	3	5	4.31	0.54	0.73	4.00
Sample size: 4	5	2	3	4.25	4.01	0.59	0.77	4.10

Table 1: Statistics on four selected teacher competences.

Key competences, teacher competences	Maximum	Minimum	Range	Modus	Mean	Variance	Standard deviation	Median
Sample size: 40	4.58	3.21	1.37	4.20	3.90	.14	.37	3.86

Table 2: Statistics of observed forty teacher competences.

Key competences, teacher competences	Answers				
	1 Unnecessary %	2 Less necessary %	3 Important %	4 Very important %	5 Indispensable %
Communication in foreign languages	0.00	7.50	30.00	45.00	17.50
Digital competence	0.00	6.25	43.75	37.50	12.50
Interaction skills	0.00	1.25	10.00	35.00	53.75
Cooperative skills	0.00	1.25	12.50	40.00	46.25

Table 3: Preference of four selected teacher competences.

Table 3 shows the distribution of response preferences of the four selected teacher competences.

The reasons why should occur internationalization and modernization of teacher training programmes: students obtain updated information and knowledge and not are burdened with data and knowledge not essential to their future life. Graduates succeed in today's world and be competitive in the labour market; are not only educated but also are confident and independent; become able to work creatively, solve unforeseen situations but also to cooperate with others regardless of whether it is a fellow citizen or foreign.

5 Conclusion

In conclusion, the evolving nature of the information society demands a corresponding transformation in how it is taught. Traditional approaches that focused primarily on technical skills are no longer sufficient. Instead, contemporary pedagogy must emphasize critical thinking, media and digital literacy, ethical awareness, and the social impacts of information technologies. The integration of artificial intelligence, immersive technologies, hybrid learning environments, and student-centred methods reflects a growing recognition of the need to prepare learners for active, informed, and responsible participation in a digitally interconnected world. These new trends not only enhance engagement and accessibility but also promote lifelong learning skills crucial for navigating rapid technological and societal change. However, successful implementation requires continuous teacher training, updated curricula, and a commitment to digital equity. As the information society continues to evolve, education must remain agile—responsive not only to technological developments but also to the complex human, cultural, and ethical dimensions that shape how information is created, shared, and understood.

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