

Building Bridges Across Borders: Networked Learning within the International Community of Online Schools (ICONS)

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Abstract

This short paper examines how networked learning can enhance collaboration, inclusion, and professional exchange among online schools. Drawing on data from a 2024–2025 ICONS survey, the study explores pedagogical models, shared challenges, and collaboration priorities within the International Community of Online Schools (ICONS), a global network initiated by d-teach online school (Belgium). ICONS brings together 19 K–12 online schools across Europe and beyond, collectively reaching learners in more than 90 countries worldwide, and serving thousands of globally mobile, multilingual, and special-needs students. The research adopts a mixed-methods design combining descriptive statistics and thematic analysis of open-ended responses. Findings reveal a professional and diverse ecosystem of online schools that blend synchronous and asynchronous learning, prioritize humanized digital pedagogy, and explicitly link their missions to SDG 4 and UNESCO’s principles on digital inclusion. While 46.7% of participating schools provide official diplomas, they often operate within fragmented policy systems that fail to recognize their transnational educational role. Three central collaboration priorities emerged from the survey: (1) pedagogical innovation and AI integration to humanize technology in education, (2) quality assurance and cross-border recognition, and (3) teacher professional development through shared modules and peer learning. These findings are interpreted through the lens of Networked Learning theory (de Laat & Dohn, 2019; Networked Learning Editorial Collective, 2021a, 2021b), which conceptualizes learning as a relational process distributed across people, organizations, and technologies. Within this framework, ICONS functions as a networked ecosystem enabling schools to learn with and from one another, transforming isolated innovation into collective intelligence. The paper argues that online schools should not be viewed as substitutes for traditional schooling, but as pedagogically rich and socially connected extensions of educational opportunity that provide continuity and inclusion for learners whose education is disrupted by mobility, geography, health constraints, or other reasons. Policy recommendations call for inclusive recognition frameworks that value online schools as equal partners within education systems, alongside European-level professional development programmes that build teacher capacity in digital pedagogy and AI literacy. By situating online schooling within a networked learning paradigm, this study contributes to ongoing debates on equity, recognition, and collaboration in postdigital education. ICONS exemplifies how distributed professional communities can foster innovation and inclusion across borders, advancing the vision of a more connected and resilient global education ecosystem.

Keywords

Online schools, networked learning, international education, inclusion, community of practice, digital pedagogy

1. Introduction

Online and distance schools have existed for several decades, long before the sudden global shift to emergency remote teaching during the COVID-19 pandemic. Unlike the temporary and often reactive solutions developed in that period, online schools have built pedagogically grounded and holistic frameworks for high-quality online learning. Research indicates that the effectiveness of online learning depends on instructional design and interaction quality, with well-structured approaches yielding outcomes comparable to those of traditional classroom settings (Prestridge et al., 2017; Prestridge et al., 2018; Grammens et al., 2022). Their approaches combine structure with flexibility, emphasizing learner autonomy, well-being, and interaction.

While some online schools operate as fully independent institutions with their own accreditation and curriculum, others collaborate closely with traditional schools to provide blended or complementary learning pathways. In both cases, online schooling is driven by a commitment to quality, inclusion, and personalization. It should be emphasized that this is not a substitute for traditional classroom teaching, but it should be regarded as an extension of educational opportunity in diverse contexts. Whether supporting globally mobile families, learners with special needs, or children without access to local schooling due to distance, conflict, health conditions, or other reasons, online schools offer sustainable continuity in education. They help ensure that every learner can progress, regardless of location, language, or circumstance, fostering at the same time global citizenship and inclusion through digital learning.

Despite this maturity and innovation, many online schools operate within fragmented regulatory frameworks and have limited opportunities for international collaboration. To help bridge these gaps, d-teach online school (Belgium), part of the UNESCO Associated Schools Network (ASPnet) and known for its expertise in online pedagogy, founded the International Community of Online Schools (ICONS) in 2023. This peer-learning network connects K–12 online schools worldwide to advance inclusion, innovation, quality and cross-border collaboration in online education.

The concept of Networked Learning provides a useful theoretical lens for understanding such collaboration, emphasizing connection, shared knowledge, and learning across human and technological networks (de Laat & Dohn, 2019; Networked Learning Editorial Collective, 2021a, 2021b). This short paper reports on the first ICONS survey (2024–2025), mapping the profiles, pedagogical models, and shared challenges of 15 member schools.

2. Research context and design

The International Community of Online Schools (ICONS) currently brings together 19 online schools from Europe and beyond. Initiated in March 2023 by d-teach online school, Belgium’s first online school for international families, ICONS emerged as a result of d-teach’s participation in the European Commission’s Digital Education Hub accelerator process, one of the key instruments of the EU’s Digital Education Action Plan (European Commission, 2020).

Member schools share a common mission: to provide equitable, multilingual, and flexible education for learners across borders and to ensure continuity of learning for globally mobile, multilingual, and special-needs students. ICONS promotes the complementarity between online and traditional schooling, positioning online education not as a substitute but as an innovative and inclusive extension of educational opportunities. As a growing global voice of online schools, ICONS fosters collaboration among educators, policymakers, researchers, and edtech partners. The network supports advocacy for recognition, joint funding applications (e.g. Erasmus+, Horizon Europe), and professional peer learning to advance online pedagogy and quality assurance worldwide.

The study employed a descriptive and exploratory mixed-methods design, combining multiple-choice, Likert-scale, and open-response items in an online questionnaire. This was completed by 15 online schools within the ICONS network. Quantitative data were analyzed descriptively to outline institutional characteristics and trends, while qualitative responses were thematically coded to identify cross-school patterns and shared priorities.

Table 1: Overview of survey dimensions

Dimension	Focus	Example item
Institutional profile	Accreditation, location, governance	<i>“What is the legal status of your school?”</i>
Pedagogical model	Didactics, learner support, technology use	<i>“How do you measure/monitor the quality of your teachers?”</i>
Inclusion & mobility	Multilingualism, Special Education Needs, international transitions	<i>Indicators derived from open responses</i>
Collaboration & innovation	Partnerships, research, teacher professional development	<i>“What needs and challenges do you have in your school?”</i>

3. Results and discussion

3.1 Institutional diversity and accreditation

The 15 participating schools represent a wide geographical range, with founding years between 1948 and 2021. Student populations range from 50 to over 4,000 learners, collectively reaching students in more than 90 countries worldwide. Together, the participating schools employ more than 850 teachers, including full-time, freelance, and volunteer educators. Faculty sizes range from fewer than ten to over two hundred, reflecting the network's diversity in scale, staffing models, and organizational structures. This reflects substantial diversity in scale and organizational models across the ICONS network. While almost half (46.7%) of the schools provide official diplomas that are recognized by the Ministry of Education or another qualified national agency, and 80% of the participating schools get (partial) funding from the government, many operate within fragmented policy systems that fail to recognize their cross-border educational role. As one respondent noted, their mission is mainly to provide continuity for children who move frequently or cannot attend local schools.

3.2 Pedagogical orientation

Teaching models among ICONS member schools vary considerably: nearly half (46.7%) combine synchronous and asynchronous instruction, one-third (33.3%) teach exclusively synchronously and one-fifth (20%) operate fully asynchronously. Most schools (86.7%) develop their own pedagogical materials, often adapted for multilingual or mobile learners. They emphasize humanized online pedagogy, project-based learning, and formative assessment. This diversity reflects how online schools tailor instruction to varied learner contexts and curricula while sustaining interaction and belonging through collaborative projects and personalized feedback. These findings align with earlier work highlighting humanistic and relational approaches to online education (Prestridge et al., 2017; Prestridge et al., 2019).

3.3 Inclusion and multilingualism

Inclusion and multilingualism are central themes across the ICONS network. Many participating schools explicitly describe inclusive and multilingual missions in their qualitative responses and public profiles, often stressing support for diverse learner populations, including globally mobile and special-needs students. Several schools also align their work with SDG 4 (Quality Education) and UNESCO's digital inclusion principles.

3.4 Teacher development and quality assurance

Most schools provide internal professional development for online teaching; some offer formal certification or collaborate with universities. Focus areas include digital pedagogy, feedback quality, and emotional presence online. Quality assurance is supported by learner surveys, observation of lessons, and annual audits.

3.5 Priorities for collaboration within ICONS

Open responses yielded three shared priorities:

1. Pedagogical innovation & AI integration, co-developing methods to humanize technology in online learning.
2. Quality assurance & accreditation alignment, pursuing recognition across jurisdictions.
3. Teacher professional development & community building, shared professional development modules and exchange opportunities.

These results align with Networked Learning (de Laat & Dohn, 2019; Networked Learning Editorial Collective, 2021a, 2021b), which frames learning as relational and distributed across people, organizations, and technologies. ICONS functions as a networked ecosystem enabling online schools to learn with and from one another across national systems. This reflects earlier work highlighting ICONS as an international community connecting schools, policymakers, edtech partners, and researchers to co-develop pedagogical strategies and advocate for the formal recognition of online schools as full partners in education systems (Declercq et al., 2025).

4. Policy implications and future directions

The survey underscores both the maturity and the vulnerability of online schools. They serve as 'innovation laboratories' for inclusive and personalized learning, but they operate within fragmented national regulatory systems.

Three persistent challenges emerge. First, issues of recognition and regulation continue to limit the integration of online schools into national policy frameworks, despite their commitment to quality assurance and accredited learning pathways. Second, teacher professionalization in online learning contexts remains underdeveloped at an international level. The absence of widely recognized frameworks for online teacher education and certification reflects broader global calls for stronger investment in digital competence and teacher training. Third, equity and access remain pressing concerns, as digital divides and uneven financial resources threaten the long-term sustainability of inclusive online education ecosystems.

In response to these challenges, ICONS advocates for a set of coordinated policy actions. Central among these is the development of inclusive recognition frameworks that position accredited online schools as equal partners within education systems, supporting more resilient and adaptable learning structures. In addition, transnational professional development programmes supported through initiatives such as Erasmus+ and the EU's Digital Education Action Plan could play a key role in strengthening teacher expertise in digital pedagogy and AI literacy across borders. Finally, sustained research–policy dialogue is essential to ensure that the innovations emerging from online schooling inform future European and global education strategies, fostering systems that are more inclusive, connected, and responsive to diverse learner needs.

5. Conclusion

The first ICONS survey highlights the diversity, professionalization, and societal relevance of online schools worldwide. Far from being temporary or supplemental, these institutions demonstrate that human connection and digital learning can coexist meaningfully. Online education should not be viewed as competition to traditional schooling or as a commercialised form of self-learning found in many app-based solutions. Instead, it represents a pedagogically rich, socially connected, and inclusive form of networked learning that connects multidisciplinary professionals, qualified teachers, students, and families to support holistic learning across borders. Through Networked Learning principles, ICONS is transforming isolated innovation into collective intelligence, uniting online schools, educators, researchers, and policymakers around the shared goal of equitable, borderless, innovative and inclusive education. In line with recent redefinitions of Networked Learning (Networked Learning Editorial Collective, 2021a, 2021b), ICONS illustrates how distributed professional communities can turn isolated innovation into collective intelligence, contributing to a more connected, inclusive, and forward-looking global education system.

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Acknowledgements

We thank all participating members of the ICONS network for their time and insights. ChatGPT (<https://chat.openai.com/>) was used by Author 1 to assist in planning this research, reformulate the wording of Author 1's initial ideas, and conducting a spell check and grammar review.

Declaration of Interest statement

No financial compensation or specific funding was received for this research. The authors declare no other conflicts of interest.