Digital Literacy of Teachers, Parents, and Learners

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Abstract

Digital literacy in remote education is often reduced to device operation, although successful participation requires teachers, parents, and learners to complete connected tasks with different responsibilities. This conceptual review proposes a Shared Digital Task Ecosystem organized around access, operation, information judgment, communication, safety, and repair. Evidence through 2021 suggests that a platform can be technically available while learning fails because files are too large, instructions are fragmented, sources are unreliable, privacy expectations are unclear, or users have no recovery route after an error. The framework maps each recurring school task across the three actors and assigns one accountable process owner. It recommends performance-based support, low-bandwidth alternatives, common file and message conventions, age-appropriate safety rules, and a help system that records recurring breakdowns. It also distinguishes household assistance from surveillance and teacher competence from personal ownership of equipment. The article does not score the digital literacy of any group. Its contribution is a relational model for evaluating whether the combined system allows people to access, judge, communicate, protect, and recover while completing authentic educational tasks.

Keywords: digital literacy; teachers; parents; learners; digital safety; remote education

Introduction

A teacher may design an online activity but be unable to compress it for limited data. A parent may open a link but not distinguish the official file from an imitation. A learner may navigate an app yet share personal information carelessly. Calling any group digitally literate without naming the task conceals these differences.

Remote education also links the actors. If the school uses inconsistent filenames, a parent's organizational skill may not prevent confusion. If a platform has no recovery path, a learner's mistake can become permanent exclusion. Competence and system design must be examined together.

Purpose of the Article

This article asks which task dimensions matter across teachers, parents, and learners and how schools can support weak links without requiring the same expertise from everyone.

Conceptual Approach

Design and Source Base

The synthesis draws on digital-competence, media-literacy, and digital-divide frameworks available through 2021. It distinguishes access, skills, use, and outcomes and interprets literacy through observable performance rather than confidence alone.

Roles differ. Teachers hold responsibility for instructional and data decisions; parents may support access and routines; learners increasingly manage participation

and judgment according to age. The framework does not turn families into technical administrators.

The Shared Digital Task Ecosystem

Secure Meaningful Access

Access includes a usable device, electricity, connectivity, data cost, time, accessibility features, and permission to use the tool. A shared smartphone available late at night is not equivalent to a personal computer during scheduled class.

Schools should design a functional offline or low-bandwidth route and test whether it leads to the same essential objective. Alternatives must include submission and feedback, not only content download.

Standardize Essential Operations

Recurring actions such as opening, naming, saving, uploading, joining, and recovering a password should follow common conventions. Short visual guides should be tied to the school's actual tools rather than generic technology lessons.

Performance checks can ask a user to complete a real task with support available. Self-rated skill may miss hidden assistance, while a one-time test may not represent changing platforms.

Judge Information and Instruction

Users need to identify the official source, date, author, purpose, and evidence behind a message. Teachers should model how to compare sources and disclose when a link or claim has been corrected.

Learners also need to interpret digital instructions. One authoritative task page, a visible deadline, an example output, and a help contact reduce misinformation generated by fragmented classroom messages.

Communicate and Create Responsibly

Digital participation includes choosing an appropriate channel, composing a clear message, crediting sources, collaborating, and producing content that matches the learning purpose. Platform activity does not automatically demonstrate these abilities.

Parents can support respectful routines and ask for clarification, but private teacher-learner communication, assessment authorship, and access to household data require explicit boundaries.

Protect and Repair

Safety includes privacy, consent, account security, cyberbullying response, age-appropriate sharing, screen routines, and recognition of fraud. Rules should explain what to do after an incident, not merely prohibit behavior.

A repair system provides password help, alternative submission, error documentation, and escalation. Repeated incidents reveal where the platform or instruction needs redesign. Blaming the user wastes that evidence.

Table 1

Shared digital-task map

Dimension	School design duty	Observable task
Access	Provide equivalent low-bandwidth route	Reach content and return work
Operation	Use common conventions and guides	Open, name, save, and submit
Judgment	Identify authoritative dated sources	Verify instruction or claim
Communication	Set purpose and privacy boundaries	Create and exchange responsibly
Repair	Offer help, alternatives, and escalation	Recover after error or incident

Note. The table is an analytic tool proposed in this article; it does not report field measurements.

Discussion

The ecosystem view replaces three separate skill lists with one map of connected tasks. It reveals where a school process creates unnecessary digital demand and where targeted instruction, access support, or a safer rule is required.

Scope and Research Agenda

This review does not measure competence or compare groups. Access and self-report data may exaggerate functional participation, while platform logs can miss offline work and shared accounts. Future studies should use authentic tasks, disaggregate access conditions, assess safety and information judgment, and link support with educational outcomes.

Conclusion

Digital literacy is demonstrated when the educational system enables its participants to access a task, operate the tools, judge information, communicate responsibly, protect people and data, and recover from failure. The goal is reliable participation, not merely device familiarity.

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