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IT GOVERNANCE AND DIGITAL TRANSFORMATION IN EDUCATIONAL INSTITUTIONS: FROM THE COMPUTER LAB TO BRAZIL'S NEW DISTANCE-EDUCATION FRAMEWORK

GOVERNANÇA DE TI E TRANSFORMAÇÃO DIGITAL NAS INSTITUIÇÕES DE ENSINO: DO LABORATÓRIO DE INFORMÁTICA AO NOVO MARCO REGULATÓRIO DA EDUCAÇÃO A DISTÂNCIA NO BRASIL

GOBERNANZA DE TI Y TRANSFORMACIÓN DIGITAL EN LAS INSTITUCIONES EDUCATIVAS: DEL LABORATORIO DE INFORMÁTICA AL NUEVO MARCO REGULATORIO DE LA EDUCACIÓN A DISTANCIA EN BRASIL

https://doi.org/10.56238/bocav25n82-005

Submission date: 08/15/2026 **Publication date:** 09/15/2026

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ABSTRACT

Digital transformation in Brazilian education has moved from a tools discussion to a governance problem: an IT committee, a master plan, information security, a truthful regulatory record, and, from 2025, a new federal framework for distance education. This article links three layers — laboratory and learning-center operations, institutional IT governance, and federal policy in 2024–2025 — and argues that an institution without IT government cannot sustain a learning center, a learning platform, or responsible use of artificial intelligence. The sources are literature and rules published through 2025.

Keywords: IT Governance. Digital Transformation. Distance Education. Decree 12,456/2025. Artificial Intelligence in Education.

RESUMO

A transformação digital na educação brasileira passou de uma discussão sobre ferramentas para um problema de governança: um comitê de TI, um plano diretor, segurança da informação, um registro regulatório fidedigno e, a partir de 2025, um novo marco federal para a educação a distância. Este artigo articula três dimensões — as operações de laboratórios e polos de aprendizagem, a governança institucional de TI e as políticas federais de 2024–2025 — e argumenta que uma instituição sem governança de TI não consegue sustentar um polo de aprendizagem, uma plataforma educacional ou o uso responsável da inteligência artificial. As fontes utilizadas são constituídas por literatura e normas publicadas até 2025.

Palavras-chave: Governança de TI. Transformação Digital. Educação a Distância. Decreto nº 12.456/2025. Inteligência Artificial na Educação.

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RESUMEN
La transformación digital en la educación brasileña ha pasado de una discusión centrada en las herramientas a un problema de gobernanza: un comité de TI, un plan director, seguridad de la información, un registro regulatorio fidedigno y, a partir de 2025, un nuevo marco federal para la educación a distancia. Este artículo articula tres dimensiones —las operaciones de los laboratorios y centros de aprendizaje, la gobernanza institucional de TI y las políticas federales de 2024–2025— y sostiene que una institución sin gobernanza de TI no puede mantener un centro de aprendizaje, una plataforma educativa ni un uso responsable de la inteligencia artificial. Las fuentes utilizadas comprenden literatura y normas publicadas hasta 2025.

Palabras clave: Gobernanza de TI. Transformación Digital. Educación a Distancia. Decreto n.º 12.456/2025. Inteligencia Artificial en la Educación.

1 INTRODUCTION

Expanding distance-education centers and computer labs without governance produced the pattern already visible from 2017 to 2024: openings and closures in the same cycle, uneven infrastructure, and a registry that did not match the room on the ground (Semesp, 2024; ABED, 2024). In 2025 the Ministry of Education issued Decree No. 12,456, which redesigns distance and blended provision, requires a minimum of in-person activity, bars a center from being shared by different institutions, and allows up to two years to bring infrastructure and the e-MEC record into line or to deactivate the site (Brazil, 2025a). In the same period the Ministry published a reference framework for responsible artificial intelligence in education (Brazil, 2025b).

Those acts are not solved by buying laptops. They are solved by who decides on IT, under which plan, with which security controls, and with what evidence that the learning center actually exists.

2 DIGITAL GOVERNANCE IN EDUCATIONAL INSTITUTIONS

A longitudinal study (2018–2024) in a federal education institution in Northern Brazil describes the path: formalize an IT governance model, create a managing committee, turn policies and processes into standing rules, strengthen information security, and improve delivery of institutional plans (Revista Sítio Novo, 2025). The gain was not a single system. It was maturity. The same logic appears in the Brazilian Strategy for Digital Transformation, which treats education and professional training as an enabling pillar and provides for periodic updates of the policy (Brazil, 2018, as updated).

Without a committee and without a master plan, a virtualized laboratory remains one technician’s project; the learning center remains a lease; artificial intelligence remains a tool with no owner. Governance is what prevents that split.

3 THE NEW DISTANCE-EDUCATION FRAMEWORK AND CENTER INFRASTRUCTURE

Decree No. 12,456/2025 states that no program may be entirely remote and sets floors for in-person load and for live mediated activity. In-person work may take place at the main campus, at an off-campus site, or at the distance-education center (Brazil, 2025a). Official Ministry guidance lists a minimum for the center: coordination space, study areas,

laboratories where the program requires them, and internet access. Sharing a center across different higher-education institutions is not allowed. Institutions have up to two years to update e-MEC or to close the site (Brazil, 2025a, 2025c).

For the IT manager, the decree turns laboratory uptime and network capacity into conditions for keeping the program. An institution that ran a “light” center — a help desk without practice space — will have to reinvest or shut the site. Work on laboratory virtualization remains useful (Lira, 2024; Cole et al., 2025): virtual labs and remote access extend capacity. They do not replace the academic space the decree now describes more tightly.

4 ARTIFICIAL INTELLIGENCE AND DAY-TO-DAY OPERATIONS

The Ministry’s 2025 AI reference framework calls for effective human oversight, transparency, data protection, respect for teaching work, and infrastructure (Brazil, 2025b). In a learning center and in the academic office, AI shows up first in the learning platform, in student support, and in administrative routine. Without identity governance and without a data rule, a productivity gain becomes a personal-data risk under Brazil’s General Data Protection Law. The practical rule is the same as for IT governance: an owner for the process, an access log, a policy for student data, and training for whoever runs the system.

5 CONCLUSION

From 2017 to 2025 the IT problem in Brazilian education moved from the tool to government of the tool. Virtualizing a laboratory and running a learning center hold only if there is a committee, a plan, security, and an honest e-MEC record. Decree No. 12,456/2025 and the AI reference framework make that explicit. An institution that treats IT as residual support will not meet the new framework. An institution that treats IT as a management function will have what the decree requires: a center that exists, a laboratory that works, and student data under control.

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