REFERENCES

Althubyani, A. R. (2024). Digital competence of teachers and the factors affecting their competence level: A nationwide mixed-methods study. Sustainability, 16(7), Article 2796. https://doi.org/10.3390/su16072796

Avolio, B. J., & Bass, B. M. (2004). Multifactor leadership questionnaire: Third edition manual and sampler set. Mind Garden.

Baker, E. W. (2012). Critical success factors for the implementation of enterprise resource planning systems in the public sector. International Journal of Enterprise Information Systems, 8(2), 1–20. https://doi.org/10.4018/jeis.2012040101

Bass, B. M., & Riggio, R. E. (2006). Transformational leadership (2nd ed.). Lawrence Erlbaum Associates.

Begicevic Redjep, N., Balaban, I., & Zugec, B. (2021). Assessing digital maturity of schools: framework and instrument. Technology, Pedagogy and Education, *30*(5), 643–658. https://doi.org/10.1080/1475939X.2021.1944291.

Bloom, B. S. (1968). Learning for mastery. Evaluation Comment, 1(2), 1–12.

Boynton, A. C., & Zmud, R. W. (1984). An assessment of critical success factors. Sloan Management Review, 25(4), 17–27.

Bridges, W. (2009). Managing transitions: Making the most of change (3rd ed.). Da Capo Press.

Bronfenbrenner, U. (1979). The ecology of human development: Experiments by nature and design. Harvard University Press.

Bryson, J. M. (2004). What to do when stakeholders matter: Stakeholder identification and analysis techniques. Public Management Review, 6(1), 21–53. https://doi.org/10.1080/14719030410001675722

Burns, T., & Stalker, G. M. (1961). The management of innovation. Tavistock.

Cai, L., Jin, M., & Zhou, Y. (2023). The essence of education digital transformation: From technology integration to human-machine fusion. Journal of East China Normal University (Educational Sciences), 41(3), 36–44. https://doi.org/10.16382/j.cnki.1000-5560.2023.03.004

Chai, C. S., Koh, J. H. L., & Tsai, C. C. (2013). A review of technological pedagogical content knowledge. Educational Technology & Society, 16(2), 31–51.

Chen, L. J., Chen, P. P., & Lin, Z. J. (2020). Artificial intelligence in education: A review. IEEE Access, 8, 75264–75278. https://doi.org/10.1109/ACCESS.2020.2988510

Chen, X., & Wang, X. (2019). Smart campus development in Chinese higher education. International Journal of Information and Education Technology, 9(6), 423–428. https://doi.org/10.18178/ijiet.2019.9.6.1233

CooperGibson Research. (2022). Exploring digital maturity in schools using EdTech data. UK Department for Education. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1057693/Exploring_digital_maturity_in_schools.pdf

CoSN. (2020). Driving K-12 innovation: 2020 hurdles, accelerators and tech enablers. Consortium for School Networking. https://www.cosn.org

CPC Central Committee & State Council. (2023). CPC Central Committee & State Council Issues Overall Programme for Deepening Education Evaluation Reform in the New Era. https://www.gov.cn/gongbao/content/2020/content_5554488.htm?ivk_sa=10124320u.

CPC Central Committee & State Council. (2025). Outline for Building a Leading Education Nation (2024–2035) [Policy document]. State Council of the People's Republic of China.

https://www.gov.cn/zhengce/content/2025-01/content_6998128.htm.

CPC Central Committee & State Council. (2026). Education Development 15th Five-Year Plan [Policy document]. State Council of the People's Republic of China. https://www.gov.cn/zhengce/content/2026-06/content_7073640.htm.

Creswell, J. W. (2014). Research design: Qualitative, quantitative, and mixed methods approaches (4th ed.). SAGE Publications.

Creswell, J. W., & Plano Clark, V. L. (2018). Designing and conducting mixed methods research (3rd ed.). SAGE Publications.

Daft, R. L., & Lengel, R. H. (1986). Organizational information requirements, media richness and structural design. Management Science, 32(5), 554–571.

Daniel, D. R. (1961). Management information crisis. Harvard Business Review, 39(5), 111–121.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Quarterly, 13(3), 319–340. https://doi.org/10.2307/249008

DeLone, W. H., & McLean, E. R. (1992). Information systems success: The quest for the dependent variable. Information Systems Research, 3(1), 60–95. https://doi.org/10.1287/isre.3.1.60

DeLone, W. H., & McLean, E. R. (2003). The DeLone and McLean model of information systems success: A ten-year update. Journal of Management Information Systems, 19(4), 9–30. https://doi.org/10.1080/07421222.2003.11045748

Department for Education. (2019). Realising the potential of technology in education. UK Government. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/791931/DfE-Education_Technology_Strategy.pdf

Department for Education. (2021). Education Technology (EdTech) Survey 2020–2021. UK Government. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1057817/Education_Technology_EdTech_Survey.pdf

Dexter, S. (2018). The role of leadership for information technology in education: Systems of practice. Journal of Educational Administration, 56(3), 279–296. https://doi.org/10.1108/JEA-03-2018-0049

DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. American Sociological Review, 48(2), 147–160. https://doi.org/10.2307/2095101

Dong, T. Q., Chen, R. L., & Xu, Z. G. (2025). Configurational paths of influencing factors on user satisfaction with the national smart education platform for primary and secondary schools. Modern Educational Technology, 35(4), 119–128. https://doi.org/10.3969/j.issn.1009-8097.2025.04.013.

Đurek, V., Ređep, N. B., & Kadoić, N. (2019). Methodology for developing digital maturity model of higher education institutions. *Journal of computers*, *14*(4), 247-256.

Ertmer, P. A., & Ottenbreit-Leftwich, A. T. (2010). Teacher technology change: How knowledge, confidence, beliefs, and culture intersect. Journal of Research on Technology in Education, 42(3), 255–284. https://doi.org/10.1080/15391523.2010.10782551

European Commission. (2020). Digital education action plan 2021–2027: Resetting education and training for the digital age. Publications Office of the European Union. https://education.ec.europa.eu/sites/default/files/document-library-docs/deap-communication-sept2020_en.pdf

European Commission. (2018). SELFIE: Self-reflection on effective learning by fostering innovation through educational technology. Publications Office of the European Union. https://doi.org/10.2766/010910

Eveland, J. D., & Tornatzky, L. G. (1990). The deployment of technology. In L. G. Tornatzky & M. Fleischer (Eds.), The processes of technological innovation (pp. 117–148). Lexington Books.

Fink, A. (2014). How to conduct a literature review (3rd ed.). Chongqing University Press.

Finney, S., & Corbett, M. (2007). ERP implementation: A compilation and analysis of critical success factors. Business Process Management Journal, 13(3), 329–347.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research, 18(1), 39–50. https://doi.org/10.1177/002224378101800104

Freeman, R. E. (1984). Strategic management: A stakeholder approach. Pitman.

Freire, P. (1970). Pedagogy of the oppressed. Continuum.

Fullan, M. (2020). The new meaning of educational change (5th ed.). Teachers College Press.

Fullan, M. (2021). The right drivers for whole system success. Centre for Strategic Education.

Fullan, M., & Langworthy, M. (2014). A rich seam: How new pedagogies find deep learning. Pearson.

Furjan, M. T., Tomičić-Pupek, K., & Pihir, I. (2020). Understanding digital transformation initiatives: Case studies analysis. Business Systems Research, 11(1), 125–141. https://doi.org/10.2478/bsrj-2020-0009

Galbraith, J. R. (2014). Designing organizations: Strategy, structure, and process at the business unit and enterprise levels (3rd ed.). Jossey-Bass.

Gregor, S., & Hevner, A. R. (2013). Positioning and presenting design science research for maximum impact. MIS Quarterly, 37(2), 337–355.

Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), Handbook of qualitative research (pp. 105–117). Sage.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). Multivariate data analysis (7th ed.). Pearson Prentice Hall.

Hamari, J., Shernoff, D. J., Rowe, E., Coller, B., Asbell-Clarke, J., & Edwards, T. (2016). Challenging games help students learn: An empirical study on engagement, flow, and immersion in game-based learning. Computers in Human Behavior, 54, 170–179. https://doi.org/10.1016/j.chb.2015.07.045

Hammer, M., & Champy, J. (1993). Reengineering the corporation: A manifesto for business revolution. Harper Business.

Hamid, S. H. S. A., & Sueb, R. B. (2025). Bridging educational gaps through digital competency: A systematic literature review on teacher readiness and student self-concept in rural education. International Journal of Academic Research in Business and Social Sciences, *15*(5), 1131–1142. https://doi.org/10.6007/IJARBSS/v15-i5/25479.

Hanifah, K. Q., & Nadlifatin, R. (2024, December 12). The importances of teachers' digital competence in digital learning process: A systematic review. 2024 International Conference on Information Technology Systems and Innovation (ICITSI), Bandung, Indonesia. https://doi.org/10.1109/ICITSI65188.2024.10929403.

Hao, Z., & Bao, L. (2020). Analysis of regional basic education informatization status and countermeasures from the perspective of balanced development: Based on the survey of 14 regions in Gansu Province. China Educational Technology, (15), 90–93. (in Chinese).

Hattie, J. (2009). Visible learning: A synthesis of over 800 meta-analyses relating to achievement. Routledge.

Hayes, A. F. (2018). Introduction to mediation, moderation, and conditional process analysis: A regression-based approach (2nd ed.). Guilford Press.

Heeks, R. (2020). Digital transformation for development. Development Informatics Working Paper Series, 80, 1–25. https://doi.org/10.2139/ssrn.3523799

Hevner, A. R., March, S. T., Park, J., & Ram, S. (2004). Design science in information systems research. MIS Quarterly, 28(1), 75–105.

Holotiuk, F., & Beimborn, D. (2017). Critical success factors of digital business strategy. In Wirtschaftsinformatik (WI 2017) (pp. 991–

1005). https://aisel.aisnet.org/wi2017/track09/paper/5/.

Hou, C. (2024). Research on the driving mechanisms and implementation pathways for digital transformation in school education [Doctoral dissertation, East China Normal University]. CNKI. https://doi.org/10.27149/d.cnki.ghdus.2024.000188.

Høydal, Ø. S., Finne, J., & Malmberg-Heimonen, I. (2024). The framing of educational digitalization: A scoping review of empirical studies. European Journal of Education, 59(4), e12695. https://doi.org/10.1111/ejed.12695.

Hsu, C.-H., Sheu, T.-W., & Lu, Y.-C. (2025). Strategies, applications and research issues of mobile learning in K-12 education: A systematic review of a decade of journal publications. International Journal of Mobile Learning and Organisation, 19(2), 215–237. https://doi.org/10.1504/IJMLO.2025.145332

Huawei Technologies Co., Ltd. (2021). Development opportunities for digital transformation in education white paper. https://e.huawei.com/cn/material/industry/education/ca6b6603220242c8a96fa2138926fb7f.

Hwang, S. (2022). Examining the effects of artificial intelligence on elementary students' mathematics achievement: A meta-analysis. Sustainability, 14(20), Article 13185. https://doi.org/10.3390/su142013185

Ifenthaler, D., & Egloffstein, M. (2020). Development and implementation of a maturity model of digital transformation. TechTrends, 64(2), 302–309. https://doi.org/10.1007/s11528-019-00457-4.

Inkpen, K. (1997). Adapting the human-computer interface for children. International Journal of Human-Computer Studies, 46(6), 787–799. https://doi.org/10.1006/ijhc.1996.0122

ITU. (2020). Guidelines for child online protection. International Telecommunication Union. https://www.itu.int

Jiménez-Bernal, P. J., Boude Figueredo, O., & Vargas Sánchez, A. D. (2025). Utopia, educational technologies in rural training processes: A systematic review. Social Sciences & Humanities Open, *12*, 101989. https://doi.org/10.1016/j.ssaho.2025.101989.

Jisc. (2019). Digital capability framework. Jisc. https://www.jisc.ac.uk.

Jonassen, D. H. (1999). Constructivist learning environments on the web: Engaging students in meaningful learning. Educational Technology, 39(5), 31–37.

Jung, I. (2005). ICT-pedagogy integration in teacher training: Application cases worldwide. Educational Technology & Society, 8(2), 94–101.

Kalyuga, S. (2009). Managing cognitive load in adaptive multimedia learning. IGI Global. https://doi.org/10.4018/978-1-60566-158-2

Kampylis, P., Punie, Y., & Devine, J. (2015). Promoting effective digital-age learning: A European framework for digitally-competent educational organisations. Publications Office of the European Union. https://doi.org/10.2791/54070

Kline, R. B. (2016). Principles and practice of structural equation modeling (4th ed.). Guilford Press.

Koehler, M. J., & Mishra, P. (2009). What is technological pedagogical content knowledge (TPACK)? Contemporary Issues in Technology and Teacher Education, 9(1), 60–70.

Koehler, M. J., Mishra, P., Kereluik, K., Shin, T. S., & Graham, C. R. (2013). The technological pedagogical content knowledge framework for teachers and teacher educators. In Handbook of research on educational communications and technology (pp. 101–111). Springer.

Kotter, J. P. (1996). Leading change. Harvard Business School Press.

Kozina, M., & Kirinic, V. (2022). Measuring digital capabilities of the higher education institution using digital capability maturity model. International Conference on Organizational Science Development: Organization and Uncertainty in the Digital Age. https://press.um.si/index.php/ump/catalog/book/326

Krippendorff, K. (2018). Content analysis: An introduction to its methodology (4th ed.). Sage

Publications.

Kumar, R. R., Ganesh, L. S., & Rajendran, C. (2022). Quality 4.0 – A review of and framework for quality management in the digital era. International Journal of Quality & Reliability Management, 39(6), 1385–1411.

Landis, J. R., & Koch, G. G. (1977). The measurement of observer agreement for categorical data. Biometrics, 33(1), 159–174. https://doi.org/10.2307/2529310

Lazarsfeld, P. F. (1959). Problems in methodology. In R. K. Merton (Ed.), Sociology today (pp. 39–78). Basic Books.

Leavitt, H. J. (1964). Applied organization change in industry: Structural, technical and human approaches. In New perspectives in organization research (pp. 55–71). Wiley.

Leonardi, P. M. (2011). When flexible routines meet flexible technologies: Affordance, constraint, and the imbrication of human and material agencies. MIS Quarterly, 35(1), 147–167. https://doi.org/10.2307/23043493

Lewin, K. (1946). Action research and minority problems. Journal of Social Issues, 2(4), 34–46. https://doi.org/10.1111/j.1540-4560.1946.tb02295.x

Lewis, L. K. (2011). Organizational change: Creating change through strategic communication. Wiley-Blackwell.

Leyh, C., Köppel, K., Neuschl, S., & Pentrack, M. (2022). Analysis of critical success factors for successfully conducting digitalization projects. In E. Ziemba & W. Chmielarz (Eds.), Managing information technology: Business and social issues (Vol. 442). Springer. https://doi.org/10.1007/978-3-030-98997-2_1

Li, H. (2021). Research on the dilemmas and countermeasures of digital transformation in basic education schools. China Educational Technology, (5), 34–40.

Li, X. (2021). Teacher digital literacy and school digital transformation in China. China Educational Technology, 7, 15–22.

Liang, Y. Z., Xu, C. C., & Wang, Y. (2025). Research on the configurational path of digital transformation empowering high-quality development in primary and secondary schools. Modern Educational Technology, *35*(3), 44–54. https://doi.org/10.3969/j.issn.1009-8097.2025.03.005.

Lin, R. Y., Yang, J. F., Jiang, F., & Li, J. P. (2023). Does teacher‘s data literacy and digital teaching competence influence empowering students in the classroom? Evidence from China. Education and Information Technologies, *28*(3), 2845–2867. https://doi.org/10.1007/s10639-022-11274-3.

Liu, M., Guo, S., & Liu, E. (2025). Research on the configurational paths for innovative development of smart education in primary and secondary schools in western China: A qualitative comparative analysis based on TOE theory. China Educational Technology, (8), 22–30.

Linstone, H. A., & Turoff, M. (2002). The Delphi method: Techniques and applications. Addison-Wesley.

Livingstone, S. (2012). Critical reflections on the benefits of ICT in education. Oxford Review of Education, 38(1), 9–24. https://doi.org/10.1080/03054985.2011.577938

Loonam, J., Eaves, S., Kumar, V., & Parry, G. (2018). Towards digital transformation: Lessons learned from traditional organizations. Strategic Change, 27(2), 101–109. https://doi.org/10.1002/jsc.2185

Luo, J., Fang, Q., & Wang, L. (2025). A study on the representations, influencing factors and bridging pathways of the urban-rural education “digital divide”. Language and Education Research, 9(1), 32–38. https://doi.org/10.12451/202508.00007.

Mark, M. M., & Henry, G. T. (2004). The mechanisms and outcomes of evaluation influence. Evaluation, 10(1), 35–57. https://doi.org/10.1177/1356389004042326

Marks, A., Al-Ali, M., & Atassi, R. (2020). Digital transformation in higher education: A framework for maturity assessment. International Journal of Advanced Computer Science and Applications, 11(12), 504–513.

Markus, M. L., & Tanis, C. (2000). The enterprise system experience—From adoption to success. In R. W. Zmud (Ed.), Framing the domains of IT research (pp. 173–207). Pinnaflex Educational Resources.

Matt, C., Hess, T., & Benlian, A. (2015). Digital transformation strategies. Business & Information Systems Engineering, 57 (5), 339–343. https://doi.org/10.1007/s12599-015-0401-5.

Mbona, S. V., Muchakubvura, D., Zunga, L., & Msosa, S. K. (2026). Teachers' preparedness, attitudes, and perceived impact of technology use in lesson delivery in selected Zimbabwean schools. Education and Information Technologies. https://doi.org/10.1007/s10639-026-13982-6.

McNamara, P. M. (2023). The impact of transformational school leadership on school staff and school culture in primary schools: A systematic review. Societies, 13(6), Article 133. https://doi.org/10.3390/soc13060133

Merton, R. K. (1949). Social theory and social structure. Free Press.

Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). Qualitative data analysis: A methods sourcebook (3rd ed.). SAGE Publications.

Ministry of Education of the People's Republic of China. (2018). Action plan for educational informatization (Education Informatization 2.0). http://www.moe.gov.cn/srcsite/A16/s3342/201804/t20180425_334188.html

Ministry of Education of the People's Republic of China. (2022). Education digitalization strategic action. Ministry of Education of China.

Ministry of Education, Singapore. (2023). EdTech masterplan 2030. https://www.moe.gov.sg/education-in-sg/educational-technology-journey/edtech-masterplan

Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. Teachers College Record, 108(6), 1017–1054. https://doi.org/10.1111/j.1467-9620.2006.00684.x

Munns, A. K., & Bjeirmi, B. F. (1996). The role of project management in achieving project success. International Journal of Project Management, 14(2), 81–87. https://doi.org/10.1016/0263-7863(95)00057-7.

Niemiec, A., & Zerbst, S. (2025). Between Technology and Institutions: Systemic, Institutional, and Social Enablers of Digital Transformation. Procedia Computer Science, 270, 4294-4303. https://doi.org/10.1016/j.procs.2025.09.554.

Nisa, R., Hadi, S., & Pristiani, R. (2024). Global learning transformation in primary education: A systematic review of digital policy and access enhancement. At-Thullab: Jurnal Pendidikan Guru Madrasah Ibtidaiyah, *8*(2), 194–216. https://doi.org/10.30736/atl.v8i2.2280.

OECD. (2015). Education in a digital world: Global monitoring report on education 2015–16. OECD Publishing. https://doi.org/10.1787/9789264249033-en

OECD. (2019). OECD Skills Outlook 2019: Thriving in a digital world. OECD Publishing. https://doi.org/10.1787/df80bc12-en

OECD. (2021). OECD Digital Education Outlook 2021: Pushing the frontiers with artificial intelligence, blockchain and robots. OECD Publishing. https://doi.org/10.1787/589b283f-en

Oliveira, T., & Martins, M. F. (2011). Literature review of information technology adoption models at firm level. Electronic Journal of Information Systems Evaluation, 14(1), 110–121.

Onwuegbuzie, A. J., & Johnson, R. B. (2006). Mixed methods research: A research paradigm whose time has come. Educational Researcher, 35(7), 14–26. https://doi.org/10.3102/0013189X035007014.

Opicho, E. N., Imonje, R., & Chepkonga, S. (2025). Teachers' digital literacy skills and implementation of competency based curriculum in junior schools in westlands sub county, Kenya. International Journal of Current Science Research and Review, *8*(4), 1665–1675. https://doi.org/10.47191/ijcsrr/V8-I4-12.

Peppard, J., & Ward, J. (2004). Beyond strategic information systems: Towards an IS capability. Journal of Strategic Information Systems, 13(2), 167–194.

Petrova, N., & Fustik, V. (2021). Digital industry transformation – Complex analysis of technologies, benefits, success factors and barriers. In Proceedings of the 35th International Conference on Information Technologies (InfoTech-2021) (pp. 41–50).

Pettigrew, A. M. (1987). Context and action in the transformation of the firm. Journal of Management Studies, 24(6), 649–670. https://doi.org/10.1111/j.1467-6486.1987.tb00494.x

Pfeffer, J., & Salancik, G. R. (1978). The external control of organizations: A resource dependence perspective. Harper & Row.

Phillips, B. S. (1971). Social research: Strategy and tactics (2nd ed.). Macmillan.

Plowman, L., & Stephen, C. (2005). Children, play, and computers in pre-school education. British Journal of Educational Technology, *36*(2), 145–157. https://doi.org/10.1111/j.1467-8535.2005.00449.x.

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. Journal of Applied Psychology, 88(5), 879–903. https://doi.org/10.1037/0021-9010.88.5.879.

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. Behavior Research Methods, 40(3), 879–891. https://doi.org/10.3758/BRM.40.3.879

Project Management Institute. (2021). A guide to the project management body of knowledge (PMBOK® Guide) (7th ed.).

Pu, X. S., & Cao, P. J. (2025). Can technology empower students' digital literacy? — A large-scale survey of digital learning status in primary and secondary schools. Modern Educational Technology, 35(1), 98–108. https://doi.org/10.3969/j.issn.1009-8097.2025.01.011.

Puentedura, R. R. (2014). SAMR model: A framework for integrating technology into teaching and learning. https://www.hippasus.com/

Raimo, N., Vitolla, F., & Rubino, M. (2023). Critical success factors for digital transformation in education. Journal of Business Research, 154, 113–126. https://doi.org/10.1016/j.jbusres.2022.12.042

Redecker, C. (2017). European framework for the digital competence of educators: DigCompEdu. Publications Office of the European Union. https://publications.jrc.ec.europa.eu/repository/handle/JRC107466

Redjep, N. B., Balaban, I., & Zugec, B. (2021). Assessing digital maturity of schools: Framework and instrument. Technology, Pedagogy and Education, 30(4), 521–536. https://doi.org/10.1080/1475939X.2021.1944291.

Rockart, J. F. (1979). Chief executives define their own data needs. Harvard Business Review, 57(2), 81–93.

Rockart, J. F., & Bullen, C. V. (1981). A primer on critical success factors. Center for Information Systems Research, MIT Sloan School of Management.

Rodríguez-Abitia, G., & Bribiesca-Corea, G. (2021). Assessing digital transformation in universities. Future Internet, 13(2), Article 52. https://doi.org/10.3390/fi13020052

Sahlberg, P. (2018). Finnish lessons 2.0: What can the world learn from educational change in Finland? Teachers College Press.

Schneier, B. (1999). People, process, and technology: Security is a people problem. RSA Conference 1999 Keynote. https://www.schneier.com/talks/

Selwyn, N. (2011). Education and technology: Key issues and debates. Continuum International Publishing Group.

Selwyn, N. (2016). Education and technology: Key issues and debates. Bloomsbury Publishing.

Selwyn, N. (2020). Should robots replace teachers? AI and the future of education. Polity Press.

Senge, P. M. (1990). The fifth discipline: The art and practice of the learning organization. Doubleday/Currency.

Shmueli, G. (2010). To explain or to predict? Statistical Science, 25(3), 289–310. https://doi.org/10.1214/10-STS330

Skitmore, M. (2024). A systematic review of the impact of emerging technologies on student learning, engagement, and employability. Buildings, 14(9), Article 2769. https://doi.org/10.3390/buildings14092769

Somers, T. M., & Nelson, K. (2001). The impact of critical success factors across the stages of enterprise resource planning implementations. In Proceedings of the 34th Annual Hawaii International Conference on System Sciences (p. 8016). IEEE. https://doi.org/10.1109/HICSS.2001.927129

Spillane, J. P. (2006). Distributed leadership. Jossey-Bass.

Sunmola, F. T., & Javahernia, A. (2021). Manufacturing process innovation deployment readiness from an extended people, process, and technology framework viewpoint. Procedia Manufacturing, 55, 409–416. https://doi.org/10.1016/j.promfg.2021.10.056.

Tanhua-Piiroinen, E., Kaarakainen, S.-S., Kaarakainen, M.-T., & Viteli, J. (2020). Digiajan peruskoulu II [Basic education in the digital age II]. Opetus- ja kulttuuriministeriö.

Tang, J., Huang, P., & Yan, S. (2025). Digital transformation in higher education: Logical framework, practical dilemmas, and implementation approaches. Frontiers in Psychology, *16*, 1565591. https://doi.org/10.3389/fpsyg.2025.1565591

Tao, S. (2025). Aligning technology with cognitive development: A five-tiered framework to generative AI in K-12 education. AI, Brain and Child, *1*(1), 20. https://doi.org/10.1007/s44436-025-00024-0.

Teddlie, C., & Tashakkori, A. (2009). Foundations of mixed methods research. SAGE Publications.

Tehrani, B. S., & De-Pablos-Heredero, C. (2026). Critical success factors in digital transformation of firms: A proposed model. Intangible Capital, 22(2), 768. https://doi.org/10.3926/ic.3180.

Teo, T. (2011). Factors influencing teachers' intention to use technology: Model development and test. Computers & Education, 57(4), 2432–2440. https://doi.org/10.1016/j.compedu.2011.06.008

Thomson, G. H. (1951). The factorial analysis of human ability (5th ed.). University of London Press.

Tian, Y. H., Yao, J. J., & Ding, J. (2020). How do hardware inputs for school information affect student performance — An empirical study based on junior high schools in Nanjing. Education Academic Monthly, (1), 87–94. https://doi.org/10.16477/j.cnki.issn1674-2311.2020.01.013.

Tian, A. L., Gao, W., Xiao, M., Hou, C., & Wang, Y. (2024). Model construction and development research of principal's digital leadership. Journal of the Chinese Society of Education, (5), 89–95. (in Chinese).

Timotheou, S., Miliou, O., Dimitriadis, Y., Sobrino, S. V., Giannoutsou, N., Cachia, R., Monés, A. M., & Ioannou, A. (2023). Impacts of digital technologies on education and factors influencing schools' digital capacity and transformation: A literature review. Education and Information Technologies, *28*(6), 6695–6726. https://doi.org/10.1007/s10639-022-11431-8.

Tondeur, J., van Braak, J., Ertmer, P. A., & Ottenbreit-Leftwich, A. (2017). Understanding the relationship between teachers' pedagogical beliefs and technology use in education: A systematic review of qualitative evidence. Educational Technology Research and Development, 65(3), 555–575. https://doi.org/10.1007/s11423-016-9481-2

Tornatzky, L. G., & Fleischer, M. (1990). The processes of technological innovation. Lexington Books.

Tripathi, A., Nassereddine, H., & Hatoum, M. (2023). People, process, and technology maturity levels for successful technology implementation by state departments of transportation. Transportation Research Record, 2678(1), 12–21.

Uluger, N. B., Dolgun, I. T., Birinci, S., & et al. (2022). Digitalization maturity model development for higher education. In Intelligent systems in digital transformation.

Springer. https://doi.org/10.1007/978-3-031-16598-6_20

UNESCO. (2015). Education 2030: Incheon Declaration and Framework for Action. United Nations Educational, Scientific and Cultural Organization.

UNESCO. (2018). Digital literacy global framework. United Nations Educational, Scientific and Cultural Organization.

UNESCO. (2018). UNESCO ICT competency framework for teachers (Version 3). United Nations Educational, Scientific and Cultural Organization. https://unesdoc.unesco.org/ark:/48223/pf0000265721

UNESCO. (2019). Artificial intelligence in education: Challenges and opportunities for sustainable development. UNESCO Publishing.

UNESCO. (2020). COVID-19 educational disruption and response. UNESCO.

UNESCO. (2021). Guidelines on the protection of children in digital learning. United Nations Educational, Scientific and Cultural Organization.

UNESCO. (2022). Global report on digital transformation in education. United Nations Educational, Scientific and Cultural Organization.

UNESCO. (2022). The digital transformation of education: Connecting schools, empowering learners. https://unesdoc.unesco.org/ark:/48223/pf0000374309

UNESCO. (2023). ICT competency framework for teachers.

UNICEF. (2021). Digital learning for every child: Closing the gaps for an inclusive and prosperous future. United Nations Children's Fund.

Urek, V., Begicevic Redep, N., & Kadoic, N. (2019). Methodology for developing digital maturity model of higher education institutions. Journal of Computers, 14(4), 247–256.

Van de Ven, A. H. (2007). Engaged scholarship: A guide for organizational and social research. Oxford University Press.

Venkatesh, V., & Bala, H. (2008). Technology acceptance model 3 and a research agenda on interventions. Decision Sciences, 39(2), 273–315. https://doi.org/10.1111/j.1540-5915.2008.00192.x

Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. Management Science, 46(2), 186–204. https://doi.org/10.1287/mnsc.46.2.186.11926

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. MIS Quarterly, 27(3), 425–478. https://www.jstor.org/stable/30036540

Venkatraman, N. (1994). IT-enabled business transformation: From automation to business scope redefinition. Sloan Management Review, 35(2), 73–87.

Vial, G. (2019). Understanding digital transformation: A review and a research agenda. The Journal of Strategic Information Systems, 28(2), 118–144. https://doi.org/10.1016/j.jsis.2019.01.003

Voogt, J., Fisser, P., Pareja Roblin, N., Tondeur, J., & van Braak, J. (2015). Technological pedagogical content knowledge – A review of the literature. Journal of Computer Assisted Learning, 29(2), 109–121. https://doi.org/10.1111/j.1365-2729.2012.00487.x

Vukšić, V. B., Ivančić, L., & Vugec, D. S. (2018). A preliminary literature review of digital transformation case studies. International Journal of Computer and Information Engineering, 12(9), 737–742.

Vuorikari, R., Punie, Y., Carretero, S., & Van den Brande, L. (2022). The digital competence framework for citizens (DigComp 2.2). Publications Office of the European Union. https://doi.org/10.2760/115376

Vygotsky, L. S. (1978). Mind in society: The development of higher psychological processes. Harvard

University Press.

Wang, X. B. (2023). Dilemmas and path choices in smart campus construction. Research on Educational Modernization, 10(1), 23–31.

Wang, X., Zhang, W., & Liu, M. (2022). Challenges, strategies and impacts of digital transformation in education: International experiences and Chinese practices. China Electronic Education, 41(9), 23–31.

Wang, X., Zhang, Y., & Liu, P. (2023). Key success factors for digital transformation in China's basic education: A systematic review. Journal of Educational Change, 20(2), 99–117.

Wang, Z. X., Zhang, Y. X., & Song, Z. Y. (2023). Element composition, operation mechanism, and implementation path of digital transformation in basic education in China. Journal of Sichuan University of Science & Engineering (Social Sciences Edition), 38(6), 87–98. https://doi.org/10.11965/xbew20230608.

Wang, D. M., Jiang, S. S., Guo, J., Pan, C. C., & Zhu, J. Y. (2025). How to improve the application efficacy of the National Smart Education Platform for Primary and Secondary Schools? — An analysis based on a national survey. China Distance Education, 45(11), 59–78. https://doi.org/10.13541/j.cnki.chinade.20251011.001.

Westera, W. (2020). Why and how digital education reshapes pedagogy. Education and Information Technologies, 25(4), 2975–2990.

Whelan-Berry, K., & Somerville, K. (2009). Effectively allocating resources to organizational change: Exploring the impact of first-order and second-order change. International Journal of Knowledge, Culture and Change Management, 9(9), 163–179.

World Bank. (2018). World Development Report 2018: Learning to achieve development. World Bank. https://openknowledge.worldbank.org/handle/10986/28358

Wohlfart, O., & Wagner, I. (2023). Teachers' role in digitalizing education: An umbrella review. Educational Technology Research and Development, *71*(2), 339–365. https://doi.org/10.1007/s11423-022-10166-0.

Wu, B., Yu, X., & Hu, Y. (2019). How does principal e-leadership affect ICT transformation across different school stages in K-12 education: Perspectives from teachers in Shanghai. British Journal of Educational Technology, 50(3), 1210–1225. https://doi.org/10.1111/bjet.12766.

Wu, M. L. (2010). Structural equation modeling – Methods and applications. Ge Zhi Press.

Wu, Y. H., Xu, Q. X., & Wang, J. J. (2023). Research on the maturity model of digital transformation in education. Journal of East China Normal University (Educational Sciences), 41(3), 25–35.

Xiao, L., Zheng, Z. Y., & Song, N. Q. (2023). A survey analysis of the current situation of high-quality development of basic education in Tibet promoted by educational informatization — Based on 3,134 survey data of factors influencing teachers' smart educational literacy. Journal of Tibet University (Social Science Edition), *38*(1), 237–245. https://doi.org/10.16249/j.cnki.1005-5738.2023.01.028

Xu, Q. X., & Wu, Y. H. (2023). Drivers and logical framework of digital transformation in education – An innovation ecosystem theory perspective. Modern Distance Education Research, 35(2), 31–39.

Yan, S., & Yang, Y. (2021). Education informatization 2.0 in China: Motivation, framework, and vision. ECNU Review of Education, 4(2), 410–428. https://doi.org/10.1177/2096531120944929.

Yang, Q., Alias, B. S., & Nor, M. M. (2025). Principals technology leadership and teachers ICT integration: A systematic review on capacity building for quality improvement and sustainable education. International Journal of Learning, Teaching and Educational Research, 24(9), 211–234. https://doi.org/10.26803/ijlter.24.9.11.

Yin, H. Q., & Zhang, Z. (2019). Background, logic and trend of future school change. People's Education, (24), 42–45.

Yin, R. K. (2018). Case study research and applications: Design and methods (6th ed.). SAGE Publications.

Yu, S. Q. (2020). Artificial intelligence enabled education: A new direction for educational reform based on big data analysis. Open Education Research, 26(4), 15–22.

Yu, S. Q. (2023). The critical path of digital transformation in education. Journal of East China Normal University: Education Science Edition, 41(3), 62–71.

Yuan, Z. G. (2022). Educational governance in the perspective of digital transformation. Chinese Journal of Education, (8), 1–6, 18.

Yuan, Z. G. (2023). Digital transformation of education: What to change and how to change. Journal of East China Normal University (Educational Sciences), 41(3), 1–11. https://doi.org/10.16382/j.cnki.1000-5560.2023.03.001

Yukl, G. (2013). Leadership in organizations (8th ed.). Pearson.

Yuliandari, T. M., Putri, A., & Rosmansyah, Y. (2023). Digital transformation in secondary schools: A systematic literature review. IEEE Access, 11, 90459–90476. https://doi.org/10.1109/ACCESS.2023.3306603

Zhang, H., Cui, Y. L., & et al. (2019). Research on teachers' ICT adoption influencing factor models and motivational mechanisms – An exploration based on rooted theory. Modern Distance Education, (4), 48–55.

Zhang, L., & Liu, H. (2022). The impact of digital transformation on educational equity in China: Opportunities and challenges. Education and Information Technologies, 27(5), 6457–6478.

Zhang, H. Y., & Lian, Y. D. (2024). Research on the system dynamics mechanism of high-quality and balanced development of compulsory education informatization. China Education Informatization, *30*(3), 52–63. https://doi.org/10.3969/j.issn.1673-8454.2024.03.007.

Zhang, J. H., & Wang, P. H. (2023). Research on the influencing factors of primary school teachers' information capability development in rural western China from the perspective of grounded theory. Education Observation, *12*(23), 33–36. https://doi.org/10.16070/j.cnki.cn45-1388/g4s.2023.23.026

Zhou, Q. (2022). Research on the path of digital transformation enabling high-quality development of basic education: Taking national information-based teaching experimental zones as an example. China Educational Technology, (11), 53–60. (in Chinese).

Zhao, J. (2021). Teachers' burden in the age of technology: A new perspective for understanding digital transformation in education. Educational Research, 42(11), 151–159.

Zhao, Y., & Frank, K. A. (2018). Factors affecting technology uses in schools: An ecological perspective. American Educational Research Journal, 40(4), 807–840. https://doi.org/10.3102/00028312040004807

Zhong, Q. (2021). From knowledge-based to competency-based: Challenging issues in curriculum reform. Basic Education Curriculum, (11), 5–20.

Zhong, Z. X., Lu, H. Y., Zhang, Y. Y., Kai, Y., & Shi, X. F. (2023). Research on the maturity model of educational digital transformation: A systematic analysis of domestic and international literature. Journal of Electro-Education Research, 44(6), 29–37. https://doi.org/10.13811/j.cnki.eer.2023.06.004

Zhu, K., Kraemer, K. L., & Xu, S. (2006). The process of innovation assimilation by firms across different countries: A technology diffusion perspective on e-business. Management Science, 52(10), 1557–1576. https://doi.org/10.1287/mnsc.1050.0487

Zhu, Y., Yan, S., & Zhang, L. (2025). Differences of K-12 schools students' online learning effects from the framework of "Teaching-Social-Technical" presence. The Asia-Pacific Education Researcher, *34*(5), 1655–1666. https://doi.org/10.1007/s40299-025-00978-y.

Zhu, Y. X., & Yang, F. (2023). The realistic logic, application scenario and governance path of digital transformation of education in China. China Electrochemical Education, (1), 1–7, 24.

Zhu, Z. T., & Hu, J. (2022). A theoretical framework for digital transformation in education. Chinese Journal of Education, (4), 41–49.

Zhu, Z. T., & Hu, J. (2022). Practical logic and development opportunities of digital transformation in education. Research on E-Chemical Education, 43(1), 5–15.

Zhu, Z. T., Sun, M., & Li, (2022). Making ideas shine into reality: Designing a framework and constructing a maturity model for digital transformation in education. Modern Distance Education Research, 34(6), 3–11.

Zhu, Z. T., & Dai, L. (2023). Target orientation, guiding principle and practice path of digital transformation of education driven by design intelligence. Journal of East China Normal University (Education Science Edition), 41(3), 12–24.

Zimmerman, B. J. (2002). Becoming a self-regulated learner: An overview. Theory Into Practice, 41(2), 64–70. https://doi.org/10.1207/154304502753458703.