

The Rise of The Tech-Business Translator in The Age Of AI

Muskaan Juneja / Pearl Juneja
Solutions Delivery Analyst at Holt Group

Article received: 16/04/2025, Article Accepted: 25/05/2025, Article Published: 25/06/2025

DOI: <https://doi.org/10.55640/irjaet-v02i06-02>

© 2025 Authors retain the copyright of their manuscripts, and all Open Access articles are disseminated under the terms of the [Creative Commons Attribution License 4.0 \(CC-BY\)](#), which licenses unrestricted use, distribution, and reproduction in any medium, provided that the original work is appropriately cited.

ABSTRACT

Contemporary digital transformation initiatives have intensified the demand for professionals capable of effectively connecting technological capabilities with strategic business objectives, individuals commonly recognized as *tech-business translators*. While their organizational significance continues to expand, the specific competencies necessary for success in these interdisciplinary positions remain inadequately conceptualized and lack systematic examination. This research addresses that gap by introducing the **first integrated skills taxonomy** that bridges existing disconnects across academic research, employment market intelligence, and industry practice. Drawing on **an analysis of over 50 job advertisements, recent scholarly literature, and leading industry reports**, we identify six primary competency areas, ranging from strategic reasoning and interpersonal communication to artificial intelligence proficiency and quantitative analysis. The proposed framework offers clear parameters to guide recruitment, learning and development (L&D) programs, and curriculum design. By articulating the essential competencies for these multidisciplinary professionals, this study lays foundational groundwork for future empirical research and supports talent development in digitally transformed organizational environments.

KEYWORDS

Tech-Business Translator, Hybrid Skills, Digital Transformation, Skills Taxonomy, Business-Technology Alignment, Data Literacy, AI Fluency, Cross-Functional Leadership, Talent Development, Digital Hybrid Roles.

1. INTRODUCTION

Within today's rapidly shifting digital environment, organizations increasingly depend on professionals who can operate fluently across both technical and business domains. These interdisciplinary specialists, widely termed *tech-business translators* (Weber et al., 2022; Kane et al., 2017), link sophisticated technological solutions to strategic objectives, ensuring that innovation delivers measurable value. Yet despite escalating demand, the precise competencies required for success in these roles remain poorly conceptualized and inconsistently described across industries (Weber et al., 2022; Dellermann et al., 2021).

Existing skill models such as the **T-shaped professional**, digital-leadership archetypes, or isolated data-science frameworks each highlight important

attributes, but none integrate **strategic acumen, data/AI fluency, and narrative influence** into a single, role-specific construct. This fragmentation leaves job descriptions bloated and talent-development pathways unclear, producing strategic mis-alignment, operational inefficiencies, and unrealised competitive advantage.

To address this gap, the present study introduces the **first integrated skills taxonomy for tech-business translators**, derived from recent academic literature, more than 50 contemporary job advertisements, and leading industry reports. The taxonomy is organised into **six competency domains**, strategic reasoning, communication storytelling, data literacy & visualisation, technical foundations, agile collaboration, and AI fluency & prompt design, providing a structured

lens for recruitment, learning-and-development, and curriculum design. By articulating these domains, the research offers professionals, educators, and organisations a clear roadmap for cultivating dual-skilled leaders who are essential to digital-era success.

2. Literature Review

2.1 Evolving Role of Hybrid Talent in Digital Transformation

The intensifying momentum of digital transformation has fundamentally altered organizational frameworks, operational processes, and talent requirements (Berman et al., 2020; Huang & Rust, 2021, Kraus et al., 2022). Within this transformative context, conventional compartmentalized positions are being replaced by interdisciplinary roles that integrate technical comprehension with strategic business insight (Susskind & Susskind, 2015). Researchers such as Constantinides et al. (2025) characterize this evolution as a transition toward *blended work environments*, which go beyond traditional cross-functional roles by embedding hybrid capabilities **within a single individual** rather than distributing them across siloed teams, where interdepartmental collaboration becomes not merely beneficial but essential.

Market demand continues to grow for digitally competent professionals capable of closing the communication and implementation divide between technical personnel (engineers, data scientists) and business leadership (product managers, marketing directors). These professionals frequently serve as intermediaries, terminology employed within industry contexts to identify individuals who can harmonize technical capacities with business imperatives. Contemporary positions including Product Managers, Digital Consultants, and Strategic Analysts now demand an integration of analytical reasoning, narrative construction, and adaptive flexibility that conventional educational programs frequently fail to address.

Documentation from the World Economic Forum (2023) and McKinsey (2022) reinforces this trajectory, recognizing analytical reasoning, technological competency, and interpersonal communication abilities

as among the most sought-after foundational capabilities for tomorrow's workforce.

2.2. Gaps in Existing Skill Frameworks

Although academic literature has started recognizing the development of interdisciplinary positions, a unified framework defining the competencies required for tech-business translators remains absent (Roth et al., 2019; Van der Aalst et al., 2020). Current models typically concentrate on either (Demirkan et al., 2018; Peters et al., 2022):

- **Technical expertise** (e.g., coding, machine learning, cloud systems), or
- **Business leadership** (e.g., strategic vision, market analysis)

This compartmentalized perspective creates position specifications containing comprehensive requirement lists, lacking clarity regarding role definition, competency prioritization, or professional development trajectories. For instance, certain organizations position digital translators as enhanced data analysts, while others anticipate strategic leadership and stakeholder communication responsibilities without providing formal authority or preparation.

Additionally, while frameworks including the T-shaped professional model and digital maturity assessments offer valuable context, they fall short of explaining how these capabilities function within practical interdisciplinary environments. Even the developing concept of blended workers frequently focuses on remote collaboration or task coordination, rather than emphasizing the capacity to synthesize information and impact decision-making across multiple domains.

These limitations are summarized in **Table 1**, which contrasts commonly cited frameworks with the specific needs of tech-business translator roles. As shown, while existing models offer valuable insights, they fall short of providing an integrated, role-specific competency structure required in today's blended work environments.

Table 1: Existing Skill Frameworks and Their Limitations

Framework	Focus	Limitation
T-Shaped Professional	Combines deep expertise in one area with general knowledge of others	Lacks guidance on strategic storytelling, AI use, or role-specific integration
Digital Maturity Models	Assesses organizational digital readiness	Focuses on companies, not individuals or specific role competencies
Data Science Competency Models	Emphasizes technical/data-related skills	Ignores strategic, communication, or business alignment skills
Leadership in Digital Transformation	Focuses on executive capabilities	Not tailored for mid-level hybrid roles like tech-business translators

This research addresses this deficiency by introducing a taxonomy of essential skills necessary for tech-business translators, developed from contemporary employment patterns, academic research, and practical experience from digitally advanced organizations.

2.3 Proposed Skill Set for Tech-Business Translators in Blended Work Environments

As distinctions between technology, data, and business strategy continue to blur (Mikalef et al., 2022), organizations increasingly require professionals capable of translating across disciplines, connecting technical implementations with business results. These

professionals, identified as tech-business translators, must integrate analytical sophistication with strategic understanding, and technical competency with communicative precision. To function successfully in contemporary blended work settings, they need a comprehensive skill portfolio that allows them to manage complexity, facilitate cross-functional communication, and maintain responsiveness to technological developments.

We present the following skills taxonomy developed through synthesis of current position requirements (Kane et al., 2023; Bharadwaj et al., 2019), academic research on digital competency and hybrid positions, and analysis of emerging workplace patterns in **Table 2:**

Table 2: Core Skill Set of a Tech-Business Translator

Skill Cluster	Description	Representative Tools & Practices
1. Strategic Storytelling	Communicating data-driven insights through compelling narratives tailored to business stakeholders.	Slide decks, executive briefings, narrative frameworks
2. Data Visualization	Converting complex datasets into intuitive visuals that enable decision-making.	Tableau, Power BI, Looker, Excel Charts
3. Data Fluency	Basic querying and understanding of data structures to collaborate with technical teams.	SQL, Excel, data dictionaries, entity relationship diagrams
4. AI Literacy & Prompt Design	Using AI tools effectively for ideation, analysis, and communication by crafting precise prompts, while understanding the limitations, biases, and ethical implications of generative AI technologies.	ChatGPT, Claude, Gemini, AI prompt libraries, Notion AI, ethical AI frameworks
5. Trend Scanning & Tool Agility	Monitoring emerging technologies and integrating relevant tools into workflows quickly.	ProductHunt, GitHub, VC blogs, X/Twitter trend analysis
6. Cross-Functional Translation	Bridging business needs with technical capabilities across teams.	Stakeholder alignment, user story mapping, agile ceremonies

This suggested framework describes a sophisticated combination of technical knowledge, strategic reasoning, and communication capabilities. It reflects the evolution from specialized domain expertise toward a multi-dimensional competency model aligned with blended work environments.

In particular, **AI literacy** extends beyond operational familiarity with tools. It also entails the ability to

critically evaluate AI-generated outputs, recognize inherent biases, and navigate ethical considerations such as data privacy, misinformation risks, and intellectual property rights. Tech-business translators must not only understand *how* to use AI effectively, but also *when* and *why* it should (or should not) be applied, especially in high-stakes strategic contexts where fairness, trust, and accountability are essential.

Addressing the Gap in Existing Research

While contemporary literature recognizes the necessity for hybrid or "blended" positions within digitally transformed organizations (Constantinides et al., 2025), limited research specifically defines the competencies these roles require (Li et al., 2023; Schwab & Samans, 2021). Previous investigations have typically emphasized either leadership characteristics within digital environments or examined domain-specific abilities (e.g., data science or business analysis) independently. Our research contributes by combining practical and theoretical perspectives to present a structured competency taxonomy specifically designed for tech-business translators, an emerging yet insufficiently defined role within blended work environments.

3. RESEARCH GAP AND OBJECTIVE

Although market demand for interdisciplinary positions connecting business and technology has expanded considerably in recent years, clear consensus regarding the specific competencies these positions require remains absent. Current literature frequently examines digital leadership, data competency, and adaptive work methodologies separately, yet fails to synthesize them into a unified competency profile. Consequently, the function of the tech-business translator, a professional who aligns business objectives with technical implementation, continues to be inadequately conceptualized and inconsistently understood.

Corporate position specifications demonstrate this uncertainty. Professional titles including "Product Manager," "Digital Consultant," or "Data Translator" frequently present overlapping and occasionally contradictory expectations, spanning from competency in analytical applications (e.g., SQL, Power BI) to interpersonal capabilities such as stakeholder coordination, narrative development, and strategic reasoning. The lack of a standardized competency framework generates confusion for both organizations developing interdisciplinary teams and individuals preparing for these positions.

This misalignment represents a significant deficiency in both scholarly research and applied workforce development. There exists a pressing requirement to establish a systematic competency taxonomy that encompasses the integrated capabilities expected of tech-business translators within digitally transformed

organizational contexts.

3.1 Research Objective

This investigation seeks to identify and structure the fundamental competencies that characterize the tech-business translator. The principal objectives include:

- Determining the essential competency domains necessary to successfully connect business strategy with technical execution;
- Synthesizing these capabilities into a systematic, evidence-supported taxonomy founded on academic research and industry position definitions;
- Establishing the resulting framework as a practical tool for recruitment specialists, educational providers, and professionals pursuing interdisciplinary career trajectories.

Through accomplishing these goals, this paper advances the developing discourse on hybrid digital positions and establishes groundwork for subsequent empirical research in workforce development, capability assessment, and educational program design.

3.2. Research Questions

To direct this study, the following research questions are established:

- What fundamental competencies characterize the tech-business translator role within digitally transformed organizations?
- In what ways do current job frameworks and academic literature inadequately define these interdisciplinary positions?
- What deficiencies or contradictions exist within contemporary job specifications that this taxonomy can resolve?
- How might a systematic competency taxonomy facilitate more effective recruitment, professional development, and organizational planning for interdisciplinary roles?

These questions guide the creation of a practical and academically supported framework that addresses real-world requirements while resolving existing knowledge gaps in research and industry application.

4. METHODOLOGY

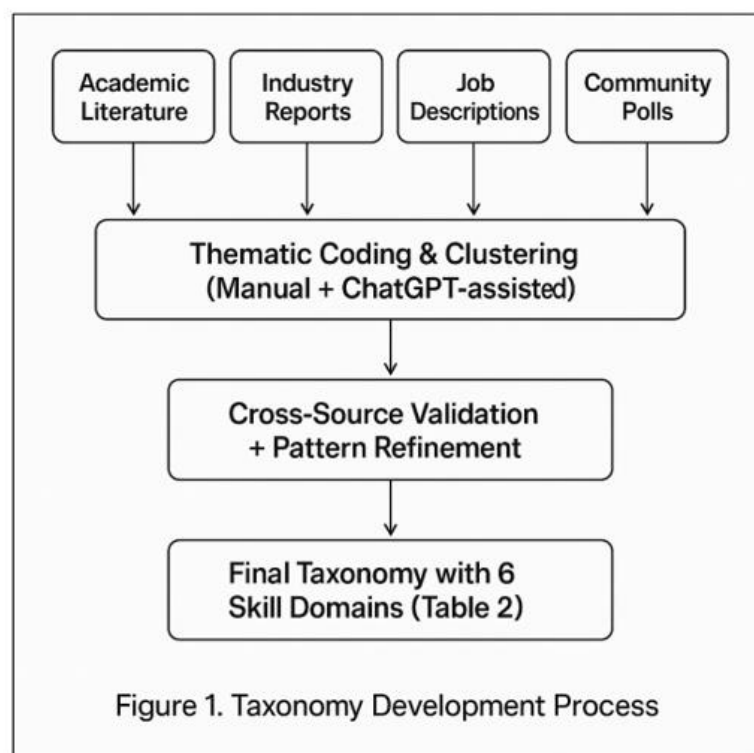
This research employs an exploratory qualitative methodology to construct a competency taxonomy for the tech-business translator position. Given the emergent nature of this occupational role, the methodology prioritizes synthesis over quantification, drawing from both academic and industry resources to identify consistent themes and competencies.

4.1 Data Sources and Selection Criteria

The competency framework was developed through a comprehensive process as shown in

Figure 1: Taxonomy Development Process, incorporating the following resources:

- **Academic Literature:** Examination of scholarly publications from the preceding 5–7 years addressing digital transformation, interdisciplinary positions, data competency, and cross-functional collaboration.
- **Industry Reports:** Analysis of white papers and reports from global consulting firms (e.g., McKinsey, WEF, Deloitte) focusing on the future of work, digital talent, and reskilling.
- **Job Postings and Role Descriptions:** Compilation and evaluation of over 50 job advertisements across LinkedIn, Indeed, and organizational career platforms, emphasizing positions such as Product Manager, Data Translator, Digital Consultant, and Strategy Analyst. This sampling aimed to cover a representative cross-section of industries undergoing digital transformation. The sample included:
 - ❖ **20 Product Manager** roles across fintech, e-commerce, and SaaS
 - ❖ **12 Data Translator** or Data Strategist roles, largely in consulting and healthcare analytics
 - ❖ **10 Digital Consultant** roles spanning Big Four firms and mid-sized strategy boutiques
 - ❖ **8 Strategy/Business Analyst** roles in manufacturing and logistics industries
- **Professional Observations:** Experiential observations from consulting practice and engagement with interdisciplinary teams in technology-focused environments.
- **Social Media Polls:** Collected input from over 3,000 LinkedIn followers and a 175,000+ member Instagram community through structured polls, gauging perceived essential skills for hybrid tech-business professionals.



4.2 Analytical Framework

A thematic evaluation process was used to identify, cluster, and validate competencies across these diverse data streams. The steps included:

- **Pattern Recognition:** Recurrent skills and role expectations were extracted from academic texts, industry reports, job listings, and poll responses. Skills most frequently mentioned across sources included data storytelling, prompt engineering, stakeholder communication, and AI literacy.
- **Skill Clustering:** Closely related competencies (e.g., narrative framing, executive briefings, and data communication) were grouped under broader thematic domains (e.g., Strategic Storytelling). This clustering was iterative and conducted using concept mapping to ensure theoretical coherence.
- **Cross-Source Validation:** Each competency cluster was cross-checked for appearance across at least two types of sources. For instance, AI literacy appeared in over 70% of recent job postings and was ranked among the top 3 skills in both LinkedIn and Instagram polls.
- **Taxonomy Structuring:** Finalized competency clusters were refined into a six-domain taxonomy. Each domain was given a clear definition, associated tools or practices, and representative real-world use cases.

This mixed-source, triangulated approach ensured that the resulting taxonomy is both grounded in real-world requirements and aligned with emerging academic discourse, suitable for informing recruitment, curriculum design, and professional development strategies.

4.3 METHODOLOGICAL LIMITATIONS

While the exploratory qualitative approach allowed for synthesis across diverse data sources, it also introduces certain limitations:

- **Subjectivity in Clustering:** The grouping of skills into thematic domains involved researcher judgment, which may carry implicit biases. While validation across multiple data types reduced this risk, further empirical testing is needed to ensure consistency across contexts.
- **Non-exhaustiveness:** Despite efforts to gather a

wide range of inputs (academic, job postings, polls, and industry reports), some niche roles or emerging technologies may not be fully captured in this initial taxonomy.

- **Limited Quantitative Validation:** This study prioritizes pattern recognition over statistical generalizability. Future research could incorporate surveys or expert panels (e.g., Delphi method) to validate the taxonomy at scale.

Despite these limitations, the approach provides a robust foundation for understanding hybrid competency demands and informs practical implementation

5. RESULTS AND DISCUSSION

5.1 Proposed Skill Taxonomy for Tech-Business Translators

Developing from the initial taxonomy introduced in Section 2.3, which integrated perspectives from academic research, industry documentation, and position specifications, this section confirms the relevance and practical application of the identified competency domains for tech-business translators.

Existing frameworks for hybrid digital professionals, such as the T-shaped skills model and traditional digital literacy frameworks, offer useful high-level principles. However, they often fall short of addressing the dynamic, integrative demands of modern tech-business roles. For example, the T-shaped model emphasizes breadth across disciplines and depth in a single area. However, it overlooks the need to orchestrate evolving competencies such as AI fluency, prompt engineering, stakeholder storytelling, and cross-functional product agility.

This proposed taxonomy advances these models by integrating **real-world competencies**, derived from both market expectations and academic discourse, into a **structured, adaptable, and domain-based model**. Unlike linear or role-agnostic frameworks, it captures how hybrid professionals operate at the **intersection of data, strategy, communication, and collaboration**, often switching contexts and tools rapidly.

The framework not only maps the “what” of necessary skills but also offers a scaffolding for **how those skills interact**, evolve, and support digital transformation outcomes.

Rather than restating the complete framework, we

concentrate on how the taxonomy addresses the evolving requirements of digitally integrated positions, emphasizing its adaptability, multi-dimensional architecture, and interdisciplinary functionality. The taxonomy (reference Table 2 in Section 2.3) establishes six primary domains that demonstrate the changing characteristics of work positioned between technology and strategy.

These domains encompass not merely technical expertise and data competency but also highlight strategic communication, adaptability, and AI literacy, capabilities that are frequently underemphasized in conventional role structures. The taxonomy's hierarchical design facilitates practical implementation in educational program development, talent cultivation, and professional advancement, establishing the groundwork for the implications examined in subsequent sections.

5.2 Implications:

A. For Hiring Managers

This taxonomy functions as a practical instrument for refining interdisciplinary position descriptions and improving recruitment accuracy. By differentiating essential domains, including strategic reasoning, AI competency, and data narrative construction, organizations can develop focused interview structures and competency-based evaluations. It minimizes role uncertainty and ensures coordination between team capabilities and digital transformation objectives.

Use Case:

- Redefine Job Description templates
- Structure skill-based screening rounds
- Benchmark talent profiles across teams

B. For Higher Education & Bootcamps

Academic institutions can incorporate this taxonomy into their program development, connecting curriculum with

industry requirements. Rather than delivering isolated competencies, educators can organize modules around integrated hybrid capabilities, such as combining SQL fundamentals with business applications or teaching AI prompt development alongside product strategy.

Use Case:

- Curriculum redesign (MBA, MTech, Exec Ed)
- Capstone project frameworks
- Career-readiness assessments

C. For Learning & Development Teams

L&D specialists can utilize this taxonomy to create systematic professional development pathways and digital talent programs. The framework provides guidance for designing multi-track educational experiences (e.g., for business analysts, digital product owners, or data-informed marketers) that integrate technical and business capabilities.

Use Case:

- Internal training programs
- Role-based learning paths
- Self-assessment or 360° feedback design

D. For Individual Professionals

For professionals managing career transitions or advancement in digital contexts, the taxonomy serves as a self-evaluation and objective-setting instrument. Individuals can recognize existing strengths, identify essential deficiencies, and pursue targeted learning rather than pursuing unconnected certifications. **Table 3** demonstrates Relative Emphasis of Each Skill Domain by Role Type.

Use Case:

- Personal development plans
- Resume building and positioning
- Portfolio or case-study alignment

Table 3: Relative Emphasis of Each Skill Domain by Role Type

Skill Domain ↓ / Role →	Product Manager	Data Translator	Digital Consultant	Analyst	Educator
Strategic Thinking					
Communication & Storytelling					
Data Literacy & Visualization					
Technical Foundations					
Agile Collaboration					
AI Fluency					

5.2.5 Addressing the Research and Practice Gap

This taxonomy addresses to the gaps identified in both academic literature and job market expectations in the following ways:

- **Integration of Diverse Competencies:** While many existing studies focus on either soft skills (e.g., leadership, communication) or technical proficiency, this taxonomy integrates both into a cohesive framework, emphasizing *hybrid fluency* as a critical competence.
- **Cross-Source Validation:** The taxonomy was not developed from a singular domain, but rather from the convergence of academic theory, consulting documentation, employment data, and practitioner experience, ensuring both conceptual rigor and practical relevance.

- **Practical Usability:** Unlike theoretical leadership models or excessively technical position specifications, this taxonomy is designed for implementation, in human resources job frameworks, professional development programs, training courses, or curriculum construction.

5.2.6 Real-World Application Snapshots

Case A: Upskilling a Product Manager in Fintech

A mid-career product manager at a digital banking platform used the proposed taxonomy to identify development areas in AI fluency and data storytelling. With guidance from the company's learning and development team, she enrolled in targeted workshops on prompt engineering and executive dashboard design. The structured learning path supported her transition into a more cross-functional leadership role, aligning with internal OKRs and strategic initiatives.

Case B: Curriculum Design at a Business School

In response to evolving industry demands, a leading MBA program revised its digital innovation curriculum based on the taxonomy's interdisciplinary framework. Faculty observed that modern general managers and consultants require hybrid fluency, not only leadership acumen, but working knowledge of AI tools, storytelling with data, and agile collaboration.

The program was redesigned into six modules mapped to the taxonomy's domains. For instance, strategic thinking was taught through product simulations, while AI fluency involved prompt development exercises. This approach aligns with recent updates at institutions such as Columbia Business School, where traditional management education now includes business analytics and technical fluency to prepare leaders for AI-integrated environments (Columbia Business School, 2023).

6. CONCLUSION

As digital transformation intensifies, organizations increasingly rely on professionals who can bridge the gap between business needs and technical execution. Yet, ambiguity around the competencies required for such hybrid roles has hampered effective hiring, training, and curriculum design. This study addresses that gap by introducing a practical, cross-validated taxonomy for the emerging "tech-business translator" role, grounded in literature, job market analysis, and practitioner insight.

Rather than treating technical and business skills in isolation, the proposed framework organizes interdisciplinary competencies into a cohesive structure, enabling targeted recruitment, skill-building, and education design. It provides clarity where ambiguity has prevailed, offering a usable blueprint for developing future-ready talent.

Limitations of this study include its reliance on qualitative pattern recognition, potential geographic bias in job postings (e.g., North American-centric data), and the subjective nature of skill clustering. While mitigated through cross-source validation, these factors warrant further empirical testing.

Future research should seek to validate and refine the taxonomy using quantitative methods such as expert panels or large-scale surveys. Domain-specific adaptation (e.g., healthcare, fintech, public sector) may also uncover unique hybrid roles not captured in the current model.

Ultimately, the rise of the tech-business translator signals a structural evolution, not a passing trend. Defining its competencies is essential for empowering cross-functional teams and cultivating adaptive, innovation-driven organizations in the AI-enabled era.

REFERENCES

1. Berman, S. J., Korsten, P., & Marshall, A. (2020). *Digital reinvention in action: What to do and how to make it happen*. IBM Institute for Business Value. <https://www.ibm.com/thought-leadership/institute-business-value/report/digital-reinvention>
2. Bharadwaj, A., El Sawy, O. A., Pavlou, P. A., & Venkatraman, N. (2013). Digital Business Strategy: Toward a Next Generation of Insights. *MIS Quarterly*, 37(2), 471–482. <http://www.jstor.org/stable/43825919>
3. Demirkan, H., Bess, C., Spohrer, J., Rayes, A., Allen, D., & Moghaddam, Y. (2015). Innovations with Smart Service Systems: Analytics, Big Data, Cognitive Assistance, and the Internet of Everything. *Communications of the Association for Information Systems*, 37, pp-pp. <https://doi.org/10.17705/1CAIS.03735>
4. Sun, X., Huang, R., Jiang, Z., Lu, J., & Yang, S. (2024). On tacit knowledge management in product design: status, challenges, and trends. *Journal of Engineering Design*, 1–38. <https://doi.org/10.1080/09544828.2023.2301232>
5. Huang, M.-H., & Rust, R. T. (2021). Artificial intelligence in service. *Journal of Service Research*, 24(1), 3–20. <https://journals.sagepub.com/doi/10.1177/1094670517752459>
6. Kraus, S., Durst, S., Ferreira, J. J., Veiga, P., Kailer, N., & Weinmann, A. (2022). Digital transformation in business and management research: An overview of the current status quo. *International Journal of Information Management*, 63, 102466. <https://doi.org/10.1016/j.ijinfomgt.2021.102466>
7. Kane, G. C., Palmer, D., Phillips, A. N., & Kiron, D. (2023). *The technology fallacy: How people are the real key to digital transformation*. MIT Sloan Management Review.

- https://leonardo.info/review/2019/11/the-technology-fallacy-how-people-are-the-real-key-to-digital-transformation?gad_source=1&gad_campaignid=1404835343&gbraid=0AAAAADuJw8qINs9wsLZGOWJ-DOSLH1U2V&gclid=Cj0KCOjwXo_CbHDbARIsADWpDH6c-d6zSyEIIKTEwLFMHVocfMm2XTq39CrDldDJsTu5CmNiRT4OOwcAa04zEALw_wcB
8. Mikalef, Patrick & Boura, Maria & Lekakos, George & Krogstie, John. (2019). Big data analytics and firm performance: Findings from a mixed-method approach. *Journal of Business Research*. 98. 261-276. [10.1016/j.jbusres.2019.01.044](https://doi.org/10.1016/j.jbusres.2019.01.044).
9. Schwab, K., & Samans, R. (2021). *The Future of Jobs Report 2021*. World Economic Forum. https://www3.weforum.org/docs/WEF_Future_of_Jobs.pdf
10. Susskind, R., & Susskind, D. (2015). *The Future of the Professions*. Oxford University <https://www.amphilsoc.org/sites/default/files/2018-11/attachments/Susskind%20and%20Susskind.pdf>
11. Van der Aalst, W. M., Adriansyah, A., & van Dongen, B. F. (2020). Process mining manifesto. In *Business Process Management Workshops* (pp. 169–194). Springer. https://doi.org/10.1007/978-3-642-28108-2_19
12. Senyo, P. K., Liu, K., & Effah, J. (2024). Digital transformation: A multidisciplinary perspective and future research agenda. *International Journal of Consumer Studies*. Advance online publication. <https://doi.org/10.1111/ijcs.13015>
13. Roth, C. (2020). The digital transformation of work is here: How scientists and practitioners can work together to manage needed workplace changes. *InPractice*, (12), 107–113 <https://doi.org/10.21825/EWOPINPRACTICE.87125>
14. Cao, G., Duan, Y., & Edwards, J. S. (2025). Organizational culture, digital transformation, and product innovation. *Information and Management*, 62(4), Article 104135. <https://doi.org/10.1016/j.im.2025.104135>
15. Kraus, S., Durst, S., Ferreira, J. J., Veiga, P., Kailer, N., & Weinmann, A. (2022). Digital transformation in business and management research: An overview of the current status quo. *International Journal of Information Management*, 63, 102466. <https://doi.org/10.1016/j.ijinfomgt.2021.102466>
16. Columbia Business School. (2023). *MBA Curriculum: Digital & Data Analytics*. Retrieved June 12, 2025, from <https://academics.business.columbia.edu/mba/academics/core-curriculum>