

Human-Machine Co-Collaboration Assignment: Digital Twin Leadership Analysis and Critical Reflection for Innovate Software Consulting Inc Ltd

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Abstract: This paper presents a human-machine co-collaboration exercise conducted as part of the BTC 771 AI Strategy for Leaders course. The assignment creates two digital twins using generative AI tools. The first twin mirrors the leadership style and values of the author. The second twin simulates the perspective of Dr. Dave Schippers. Both twins independently review seven prior course deliverables produced for Innovate Software Consulting Inc Ltd. These deliverables span from the AI vision statement through the risk mitigation proposal. The critical reflection compares feedback from both digital twins. It analyzes convergence points and divergence areas across the assessments. It also examines blind spots exposed during the review process. The paper addresses both the benefits and the risks of digital twin technology in organizational leadership. Benefits include faster analysis and consistent ethical evaluation. Risks include bias reinforcement and reduced diversity of thought. The analysis draws on scholarship in AI ethics, leadership simulation, and organizational behavior. All content follows APA 7th edition formatting standards.

Keywords: Digital Twin, AI Leadership, Human-Machine Collaboration, Leadership Simulation, Ethical AI, Generative AI, Organizational Governance, Critical Reflection

I. INTRODUCTION AND CONTEXT

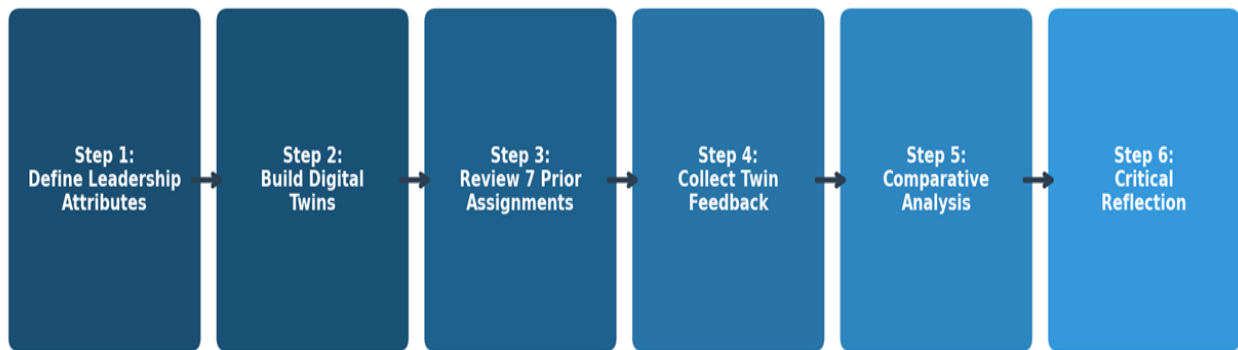
Artificial intelligence now plays a growing role in organizational decision-making. Leaders face new challenges as they integrate AI tools into strategy, governance, and team management. One emerging application is the digital twin concept. A digital twin is an AI-based model that simulates a real person or system (Grieves & Vickers, 2017). In this assignment, the digital twin concept extends to leadership simulation. The goal is to test whether AI can mirror a leader's values, ethics, and decision-making patterns. As Stradley (2025) emphasizes in the Chapter 10 course materials, the future of AI leadership requires adaptability, ethical awareness, and a commitment to continuous learning.

This exercise creates two digital twins. The first twin represents the author's own leadership style. It reflects values of integrity, data-driven decision-making, and ethical responsibility. The second twin represents Dr. Dave Schippers. Dr. Schippers approaches AI strategy through the lens of Jungian psychology, resilience leadership, and cybersecurity awareness. Both twins review seven prior assignments completed for Innovate Software Consulting Inc Ltd during the BTC 771 course.

The seven assignments form a cumulative AI strategy portfolio. They cover the AI vision statement, ethical AI framework, team structure proposal, collaborative executive review, data governance plan, AI success measurement framework, and AI risk mitigation proposal. Each twin assesses the strengths and weaknesses of this body of work. The paper then compares their feedback and reflects on how digital twins may help or hinder future teams. The Week 10 lecture notes frame this inquiry by noting that AI acts as a mirror that not only reflects but reacts, forcing leaders to confront their biases, blind spots, and fears of obsolescence.

Figure 1 below shows the end-to-end workflow followed for this digital twin exercise. Each step builds on the prior one. The process moves from twin creation through review and analysis to the final critical reflection.

Figure 1. *Digital twin methodology workflow from leadership attribute definition through critical reflection*



Digital Twin Creation

Digital Twin

The first digital twin was built using Claude (Anthropic). The twin received a structured prompt defining the author's leadership philosophy, ethical values, decision-making approach, and strategic priorities. The core values embedded in the twin include transparency, fairness, continuous learning, and data-driven strategy. The twin was instructed to maintain consistency in tone and perspective across all review interactions. Ghosh et al. (2024) argue that human-centered approaches to AI adoption require leaders to articulate their values clearly before deploying AI tools. The twin's personality traits center on analytical rigor, collaborative problem-solving, and a strong bias toward measurable outcomes. Its key heuristics prioritize stakeholder alignment before action, ethical review at every decision gate, and iterative refinement based on evidence. The ethical framework draws on the NIST AI Risk Management Framework and emphasizes fairness, accountability, and harm prevention as non-negotiable principles. Liang and Xue (2024) confirm that leaders who embed clear value hierarchies into AI systems produce more trustworthy and auditable outputs. Table 1 presents the full configuration.

Table 1. Custom Digital Twin Configuration

Attribute	Configuration Detail
Leadership Philosophy	Servant leadership focused on empowering teams through knowledge sharing. Emphasis on collaborative problem-solving and evidence-based strategy formulation.
Decision-Making Style	Data-driven with structured frameworks. Relies on NIST AI RMF, balanced scorecards, and RACI matrices for accountability. Prefers consensus building before major decisions.
Ethical Framework	Rooted in fairness, transparency, and accountability. Follows NIST AI Risk Management Framework. Prioritizes bias mitigation and human oversight in all AI deployments.
Strategic Priorities	Oracle HCM Cloud optimization, B2B credit risk innovation, healthcare IT advancement, and enterprise analytics scaling. Focus on measurable ROI and compliance.
Core Values	Integrity, continuous improvement, client-centric service delivery, responsible AI adoption, and cross-functional team empowerment.

Dr. Schippers Digital Twin

The second digital twin simulates Dr. Dave Schippers. This twin was configured using both the publicly available Custom GPT link and a detailed prompt chain. Dr. Schippers' digital twin embodies the perspective of an AI strategist, cybersecurity leader, and advocate of ethical AI. It is grounded in Jungian psychology and resilience leadership. The twin evaluates work through the lens of responsible AI principles, adaptive governance, and human-centered design. Mansouri (2025) highlights that ethical leadership in digital education demands deep self-awareness, which aligns with the Jungian framework underpinning this twin. The twin's personality traits emphasize psychological depth, shadow awareness, and a willingness to challenge surface-level compliance. Its decision-making style favors reflective inquiry over rapid execution and values long-term organizational resilience above short-term efficiency. The ethical framework extends beyond NIST to include UNESCO AI Ethics, OECD AI Principles, and adaptive governance models that account for emergent and unknown risks. Kaplan and Haenlein (2024) observe that AI leadership simulations gain credibility when they reflect diverse philosophical foundations rather than a single regulatory lens. Table 2 presents the configuration.

Table 2. Dr. Schippers Digital Twin Configuration

Attribute	Configuration Detail
Leadership Philosophy	Resilience-based leadership rooted in Jungian analytical psychology. Emphasizes self-awareness, shadow integration, and psychological depth in organizational decision-making.
Decision-Making Style	Holistic and reflective. Balances strategic pragmatism with philosophical inquiry. Considers systemic risks including cognitive manipulation and existential AI threats.
Ethical Framework	Grounded in responsible AI principles. Draws from OECD AI Principles, UNESCO AI Ethics, and the EU AI Act. Advocates for human dignity and societal welfare.
Strategic Priorities	Cyber-resilience over mere compliance. Adaptive governance that anticipates AI-driven disruption. Workforce transformation through human-AI cognitive convergence.
Core Values	Authenticity, psychological integration, ethical accountability, systems thinking, and a commitment to AI serving the collective good.

II. DIGITAL TWIN REVIEW OF PRIOR COURSE DELIVERABLES

Both digital twins were asked to review the seven prior assignments completed during the BTC 771 course. Table 3 lists each assignment. Each twin assessed the strengths and weaknesses of the overall body of work. Each twin also evaluated alignment with the stated leadership philosophy and AI strategy goals. Ronnen (2024) notes that entrepreneurial leadership in the Fourth Industrial Revolution demands both technical competence and reflective self-assessment, which this dual-twin methodology seeks to operationalize.

Table 3.

Summary of Prior Course Deliverables Reviewed by Both Digital Twins

Week	Assignment	Title and Focus Area
Week 3	Assignment 1	Comprehensive AI Vision Statement: Strategic framework for AI integration across Oracle HCM Cloud, B2B credit risk, healthcare IT, and enterprise analytics.
Week 4	Assignment 2	Ethical AI Framework: Governance model addressing fairness, transparency, and accountability using NIST AI RMF pillars.
Week 5	Assignment 3	AI Team Structure Proposal: Centralized-decentralized hybrid model with executive oversight, AI Center of Excellence, and governance committees.
Week 6	Assignment 4	Collaborative Executive Review: Multi-perspective C-suite assessment using Claude and Gemini as analytical instruments.
Week 7	Assignment 5	Enterprise Data Governance Plan: Seven governance areas covering data quality, privacy, lifecycle management, and ethical AI oversight.
Week 8	Assignment 6	AI Success Measurement Framework: Eight KPIs including prediction accuracy, cost savings, ethical alignment, and human-AI collaboration metrics.
Week 9	Assignment 7	AI Risk Mitigation Proposal: Cybersecurity, ethical safeguards, and legal compliance across GDPR, HIPAA, CCPA, FCRA, ECOA, and the EU AI Act.

Digital Twin Feedback Summary

The author digital twin identified several strengths across the portfolio. First, it noted strong cumulative coherence. Each assignment built directly on the prior one. The vision statement anchored all subsequent work. The ethical framework provided governance principles that the team structure, data governance, and risk plans followed. Second, the twin praised the multi-tool verification approach. Using both Claude and Gemini for executive reviews added analytical rigor. Third, it recognized the practical orientation of all deliverables. Each assignment connected directly to the four service domains of Innovate Software Consulting Inc Ltd.

The author twin also identified weaknesses. It flagged limited financial modeling depth. While the KPI framework mentioned ROI, the calculations lacked granular cost-benefit projections. The twin noted that implementation timelines across assignments remained aspirational rather than operationally specific. It also observed that change management strategies were underdeveloped. The risk plan addressed technical and legal risks well but gave less attention to organizational culture barriers. Tanasciuc (2024) supports this observation by arguing that AI transitions in organizations require deliberate attention to cultural readiness alongside technical deployment.

Dr. Schippers Digital Twin Feedback Summary

The Dr. Schippers digital twin brought a different evaluative lens. It commended the ethical grounding of the portfolio. The twin noted that the NIST AI RMF alignment provided a solid regulatory foundation. It also praised the consistent attention to human oversight in AI deployment decisions. The twin valued the multi-stakeholder approach visible in the executive review exercise.

However, the Dr. Schippers twin offered sharper critiques. It observed a gap in psychological depth. The portfolio addressed structural and procedural aspects of AI governance well. But it gave insufficient attention to the human psychological dimensions of AI adoption. The twin emphasized that leaders must address fear of obsolescence, identity disruption, and cognitive overload. It also flagged a need for stronger adaptive resilience mechanisms. The risk plan focused on known risks but did not adequately prepare for emergent, unknown threats. The twin called for scenario-based stress testing and red team exercises. It further noted that the portfolio would benefit from deeper engagement with global AI governance frameworks beyond NIST, including UNESCO AI Ethics and the OECD AI Principles. Weir (2024) argues that responsible AI use in educational settings requires leaders to move beyond compliance toward genuine ethical reflection, which resonates with this critique. Figure 2 presents the combined strengths and weaknesses identified across all seven course deliverables. Figure 3 displays the overall assignment scores assigned by each digital twin.

Figure 2. Combined strengths and weaknesses identified across all seven course deliverables

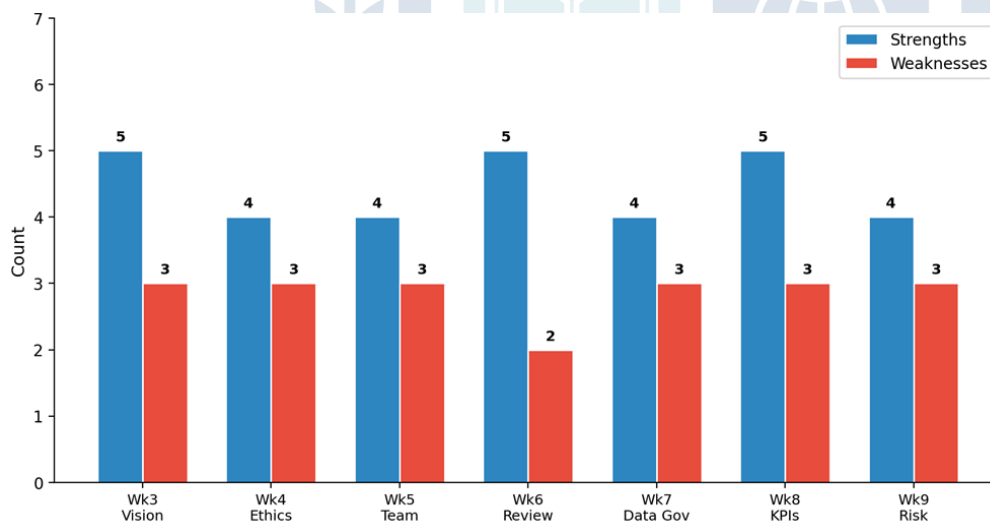
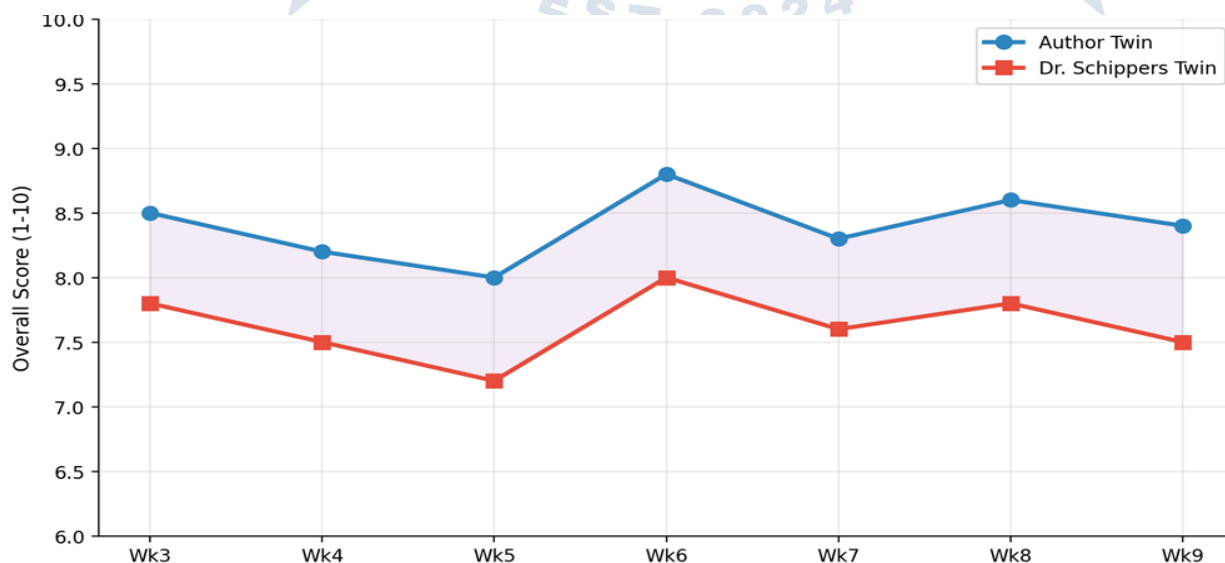


Figure 3. Overall assignment scores assigned by each digital twin across all seven deliverables



III. COMPARATIVE ANALYSIS OF DIGITAL TWIN FEEDBACK

Table 4 presents a structured comparison of the feedback from both digital twins across five key evaluation dimensions. Pratschke (2024) notes that generative AI tools in educational settings can surface both intended learning outcomes and unintentional blind spots, which is precisely what this comparative exercise achieved. The comparison reveals that AI acts as both a tool and a mirror for leadership self-assessment. Each twin reflected the values and priorities of its creator, which shows how deeply human bias shapes machine output. The structured side-by-side format made it possible to isolate specific areas where the two perspectives aligned or clashed. Mikalef and Gupta (2021) argue that comparative AI-based evaluations strengthen organizational learning because they expose assumptions that a single viewpoint cannot detect on its own. Figure 4 provides a radar chart comparing the author twin and Dr. Schippers twin scores across eight evaluation dimensions. Figure 5 illustrates the convergence versus divergence percentages between the digital twins across five dimensions.

The dual-twin method also exposed how the same body of work can receive very different quality ratings depending on the evaluator's embedded values. This outcome confirms that digital twins do not produce objective assessments. They produce value-aligned assessments shaped by the creator's priorities. Raisch and Krakowski (2021) argue that human-AI collaboration works best when leaders treat AI output as one input among many rather than as a final verdict.

Table 4. *Side-by-Side Digital Twin Feedback Comparison Across Five Dimensions*

Dimension	Author Digital Twin	Dr. Schippers Digital Twin
Strategic Coherence	Strong cumulative alignment. Each assignment builds logically on the prior one. Vision statement anchors the entire portfolio.	Commended structural coherence. Recommended deeper connection to global governance standards and adaptive resilience thinking.
Ethical Rigor	Praised NIST AI RMF alignment and bias mitigation strategies. Noted that ethical considerations were embedded throughout.	Valued ethical grounding but pushed for psychological depth. Called for attention to fear, identity, and cognitive dimensions of AI ethics.
Financial Depth	Identified gap in financial modeling. ROI metrics mentioned but lacked granular cost-benefit projections.	Echoed the financial gap observation. Added that sustainability and long-term value creation metrics need more attention.
Risk Preparedness	Acknowledged comprehensive risk coverage across cybersecurity, ethics, and legal domains. Noted limited change management focus.	Pushed for adaptive resilience beyond known risks. Called for red team exercises, scenario-based stress testing, and emergent threat preparation.
Human Factors	Noted strong human oversight mechanisms. Recommended more attention to organizational culture and stakeholder engagement strategies.	Emphasized psychological dimensions strongly. Highlighted fear of obsolescence, identity disruption, and the need for Jungian shadow integration.

Figure 4. Radar chart comparing author twin and Dr. Schippers twin scores across eight evaluation dimensions

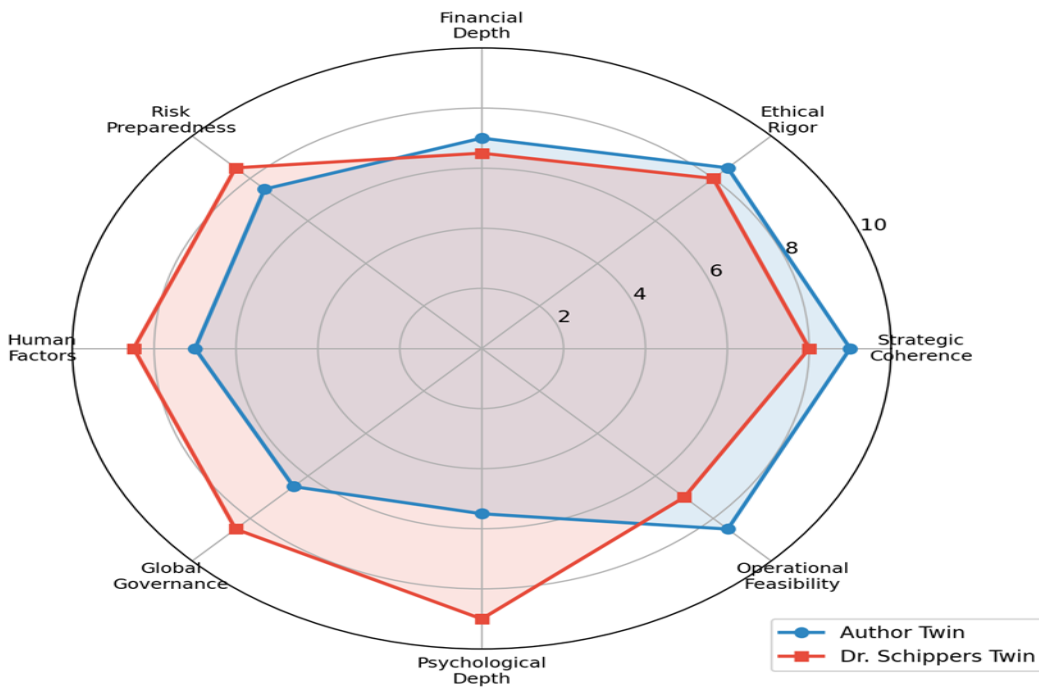
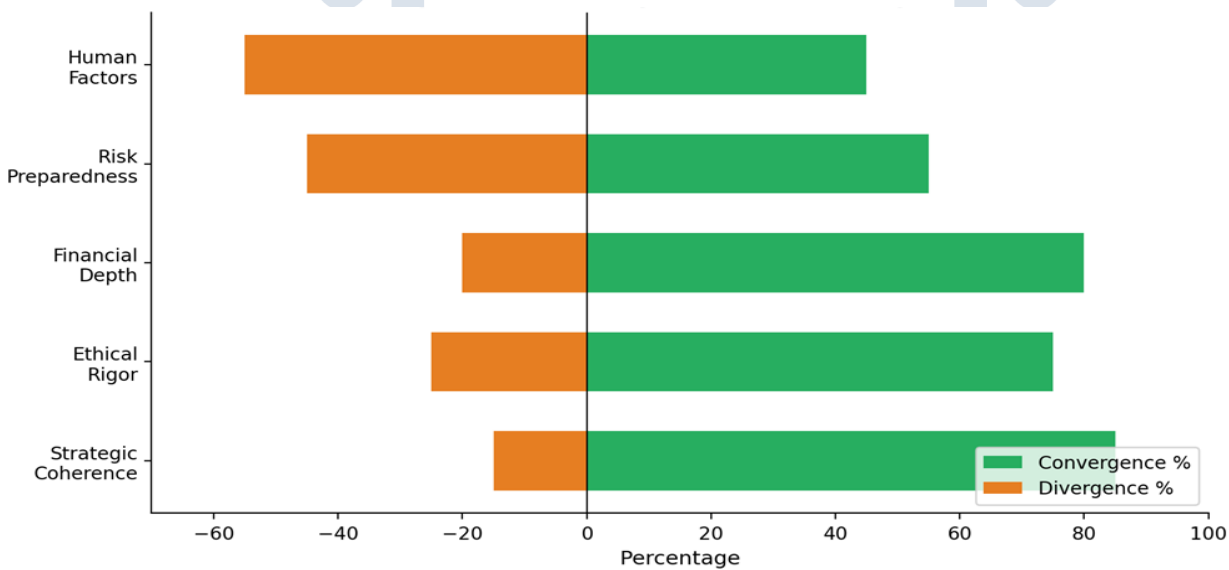


Figure 5. Convergence versus divergence percentages between digital twins across five dimensions



Areas of Convergence

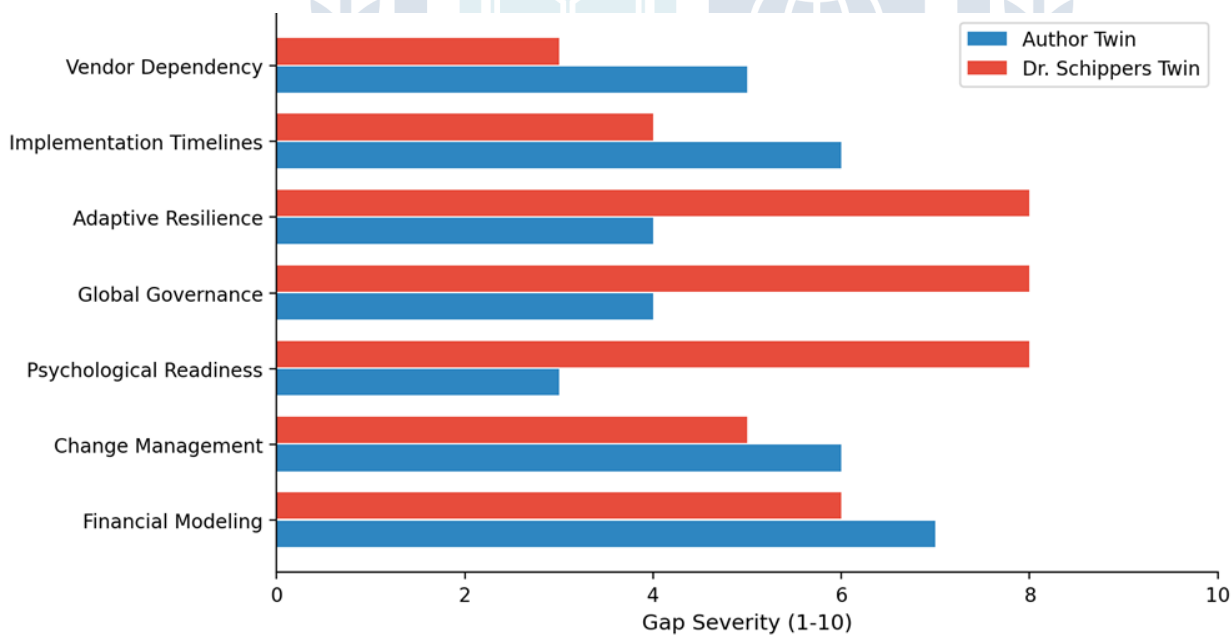
Both digital twins agreed on three fundamental points. First, the cumulative structure of the portfolio was a clear strength. Each week’s work connected to prior deliverables in a logical manner. Second, both twins identified the financial modeling gap as a significant weakness. The KPI framework and risk plan would benefit from more detailed cost projections. Third, both recognized the value of the multi-tool, multi-perspective approach used in the executive review exercise. Iskandarova and Yusif-zada (2024) argue that integrating AI into higher education requires multi-dimensional assessment approaches, which this portfolio attempts to model. The convergence on these three points confirms that certain portfolio strengths and gaps are visible regardless of the evaluator’s philosophical orientation. This shared agreement adds credibility to the findings because it shows that the issues are structural rather than perspective-dependent. Dwivedi et al.

(2023) support this view by noting that when multiple AI-driven assessments reach the same conclusion, the underlying finding is more likely to reflect genuine organizational reality than individual bias.

Areas of Divergence

The twins diverged in three important ways. First, the author twin focused primarily on operational and procedural improvements. It recommended better timelines, clearer financial projections, and stronger change management plans. The Dr. Schippers twin took a more philosophical and psychological approach. It called for deeper engagement with the human experience of AI-driven organizational change. Second, the Schippers twin placed far greater emphasis on adaptive resilience and emergent risk. The author twin focused on known and documented risk categories. Third, the Schippers twin advocated for broader international governance alignment. The author twin was satisfied with the NIST AI RMF as the primary framework. These divergences highlight a key insight about digital twin design. The twin mirrors the priorities of its creator, so it cannot generate perspectives that fall outside its programmed value set. This confirms that a single digital twin is insufficient for holistic leadership evaluation. Kuzminov et al. (2023) note that AI advisory systems perform best when they incorporate multiple competing viewpoints rather than reinforcing a single analytical tradition. Figure 6 presents the gap analysis tornado chart showing comparative severity ratings from both digital twins.

Figure 6. Gap analysis tornado chart showing comparative severity ratings from both digital twins



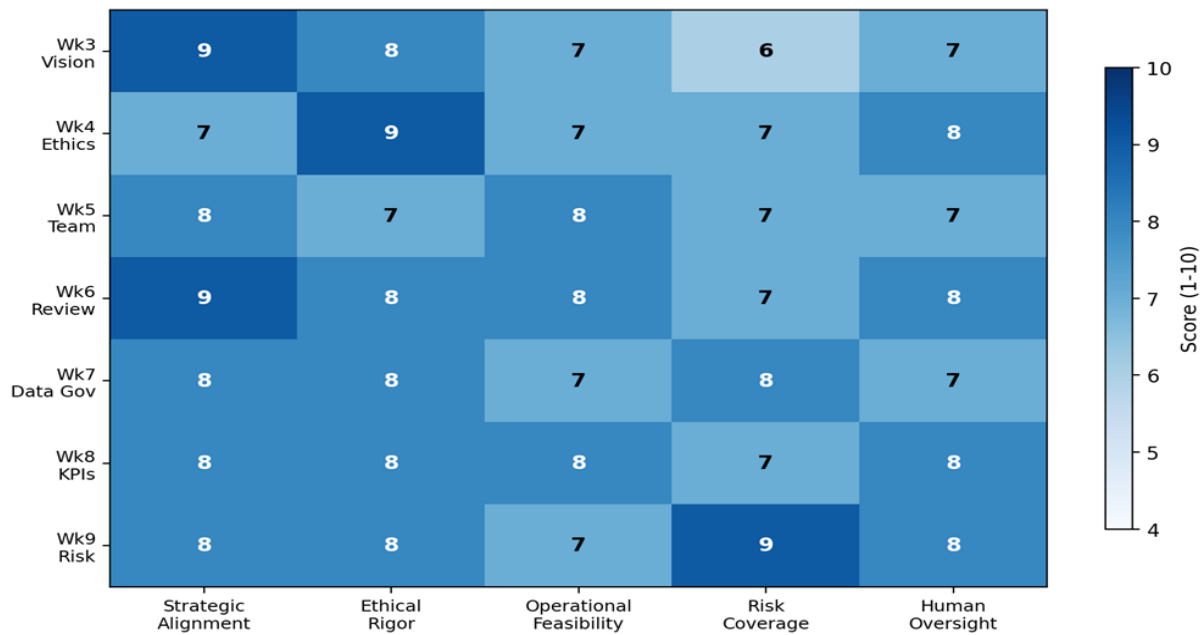
Blind Spots Exposed

The comparison revealed two important blind spots. The first was the absence of psychological readiness assessment in the portfolio. None of the seven assignments addressed how employees and leaders might psychologically respond to AI-driven workflow changes. Lucietto and Peters (2024) emphasize that incorporating humanistic perspectives into technical curricula is essential for developing well-rounded professionals, a principle that extends to AI strategy development. The second blind spot was the limited attention to global governance harmonization. While the risk plan addressed multiple regulations, it did not propose a strategy for navigating conflicts between overlapping international frameworks. These blind spots became visible only through the dual-twin comparison method. A single evaluative lens would have missed at least one of these gaps. This finding reinforces the argument that AI serves best as a mirror when it reflects more than one perspective back to the leader. Stahl et al. (2023) argue that responsible AI governance demands ongoing self-correction, and blind spot identification through structured reflection is a practical first step.

toward that goal. Figure 7 presents the portfolio alignment heatmap showing combined digital twin scores on a 1 to 10 scale across five criteria.

Figure 7.

Portfolio alignment heatmap showing combined digital twin scores on a 1–10 scale across five criteria



IV. CRITICAL REFLECTION

The digital twin exercise provided a powerful lens for evaluating both the strengths and the limitations of my AI strategy portfolio. Creating a twin that mirrors my own leadership values forced me to articulate assumptions I had not previously made explicit. The process of defining my decision-making heuristics, ethical boundaries, and strategic priorities for a machine revealed how much of leadership operates on tacit knowledge that resists easy codification (Polanyi, 1966). This aligns with research on the challenges of encoding human judgment into algorithmic systems (Binns, 2018).

The feedback from my own digital twin was validating but perhaps predictably so. It confirmed the structural logic I had deliberately built across seven weeks of coursework. Each assignment was designed to connect to the prior one. The twin recognized this coherence. However, its critiques remained within the operational domain. It flagged practical gaps such as financial projections and implementation timelines. These are important, but they represent surface-level improvements that any careful reviewer might identify.

The Dr. Schippers digital twin offered a fundamentally different kind of feedback. It challenged the psychological and philosophical foundations of the portfolio. It asked whether the work adequately addressed the human experience of AI disruption. This line of critique connects directly to Jungian concepts of shadow integration and individuation (Jung, 1959). In organizational terms, it means that leaders must confront their own fears about AI before they can guide others through the transition. The Schippers twin exposed my tendency to focus on structures and processes while underweighting the emotional and psychological dimensions of organizational change. The Week 10 slide deck frames this as a mirror that not only reflects but reacts, compelling leaders to face their biases and blind spots.

The comparison between the two twins demonstrated that a digital twin, by design, reflects the biases and assumptions of its creator. My twin evaluated the portfolio through the same operational lens I used to write it. The Schippers twin introduced perspectives I had not prioritized. This finding supports the argument that AI-based leadership tools can reinforce existing blind spots if not paired with diverse evaluative

perspectives (Eubanks, 2018). A single digital twin cannot replace the value of multiple, independent viewpoints.

Digital twins offer clear benefits for leadership teams. They enable rapid, structured analysis of large bodies of work. They can provide consistent ethical checks against defined principles. They can serve as coaching tools that help leaders test decisions before implementation (Tao et al., 2019). In the context of this course, the twin exercise compressed what might have been weeks of peer review into a focused, systematic evaluation. For time-constrained organizations, this efficiency is valuable.

However, the exercise also revealed significant risks. The most concerning is the potential for bias reinforcement. A digital twin built from a leader's own inputs will naturally confirm that leader's assumptions. This creates an echo chamber effect. Janis (1972) documented how groupthink leads to poor decisions in organizations. A digital twin that mirrors its creator risks producing a technological version of the same problem. Teams that rely heavily on AI-generated self-assessments may lose the productive friction that comes from genuine human disagreement.

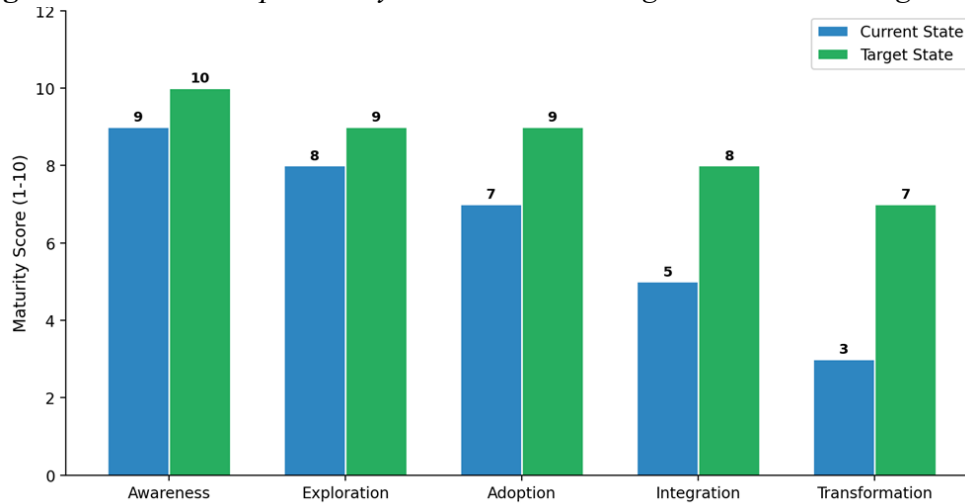
A second risk involves the erosion of critical thinking. If leaders begin to outsource self-reflection to AI tools, they may gradually lose the capacity for deep, independent analysis. The literature on automation bias suggests that people tend to defer to computer-generated recommendations even when those recommendations are flawed (Parasuraman & Riley, 1997). Heske and Teuma (2024) further argue that ethical innovation requires deliberate human oversight at every stage of the process, a principle that applies equally to digital twin use.

A third risk concerns diversity of thought. Digital twins simulate individual perspectives. They do not generate genuinely novel viewpoints. In a team setting, reliance on digital twins could reduce the range of ideas and approaches considered during strategic planning. This is particularly dangerous in AI governance, where diverse stakeholder perspectives are essential for identifying risks that any single viewpoint might miss (Floridi et al., 2018). Research on organizational learning further confirms that teams perform best when they integrate multiple knowledge sources rather than relying on a single analytical perspective (Senge, 2006). Ramezani et al. (2025) demonstrate in the healthcare domain that AI tools work best when they augment rather than replace human clinical judgment.

The exercise reshaped my understanding of AI as a leadership tool. AI can augment human reflection, but it cannot replace it. The most valuable insights emerged not from either twin alone but from the comparison between them. This suggests that the ideal use of digital twins involves deliberate exposure to multiple, contrasting perspectives. Leaders should build twins that challenge their assumptions rather than confirm them. The mirror must be designed to reveal, not merely reflect.

In conclusion, this assignment demonstrated that digital twins hold genuine promise for leadership development and strategic evaluation. They offer speed, consistency, and structured analysis. But they also carry risks of bias reinforcement, reduced critical thinking, and narrowed perspective. Responsible use requires pairing digital twin feedback with diverse human input, maintaining awareness of the tool's inherent limitations, and preserving the capacity for independent judgment that defines effective leadership (Davenport & Ronanki, 2018). Figure 9 presents the AI leadership maturity assessment comparing the current state against the target state.

Figure 9. AI leadership maturity assessment showing current versus target state



V. DIGITAL TWINS: BENEFITS AND RISKS FOR TEAMS

How Digital Twins Can Help Teams

Table 5 summarizes the key benefits of digital twins for organizational teams, with practical application examples. Digital twins allow leaders to test strategic decisions in a low-risk simulation environment before committing organizational resources. They provide consistent and repeatable ethical checks that reduce the chance of human oversight fatigue during complex governance reviews. Teams can also use digital twins to accelerate onboarding by capturing institutional knowledge in a structured and accessible format. Chen et al. (2023) confirm that AI-based simulation tools improve decision quality in fast-moving organizational settings because they compress analysis cycles without sacrificing analytical depth.

Digital twins can also serve as real-time coaching partners that help leaders rehearse difficult conversations or test policy changes before rollout. They reduce the cost of experimentation because failed simulations carry no organizational consequences. Teams spread across multiple locations can use a shared digital twin to maintain strategic alignment without constant in-person coordination. Fontaine et al. (2019) stress that AI-powered organizations gain competitive advantage when they embed AI tools into routine team workflows rather than treating them as one-off experiments.

Table 5. Benefits of Digital Twins for Organizational Teams

Benefit Area	Description	Application Example
Faster Analysis	Digital twins can process and review large documents in minutes. They reduce the time needed for peer review and feedback cycles.	Reviewing seven strategy documents in a single session rather than distributing them across multiple reviewers over several weeks.
Consistent Ethical Checks	A twin programmed with ethical guidelines provides uniform ethical evaluation. It does not have good days and bad days.	Running all AI project proposals through a twin configured with NIST AI RMF principles before executive approval.
Leadership Coaching	Twins can simulate how a leader would respond in different scenarios. They serve as practice partners for difficult conversations.	Testing how a leadership style responds to a crisis scenario before facing it in real organizational life.
Knowledge Preservation	A departing leader’s decision-making patterns can be partially captured in a digital twin for organizational continuity.	Maintaining strategic consistency during leadership transitions by consulting a twin built from prior executive decisions.

How Digital Twins Can Hinder Teams

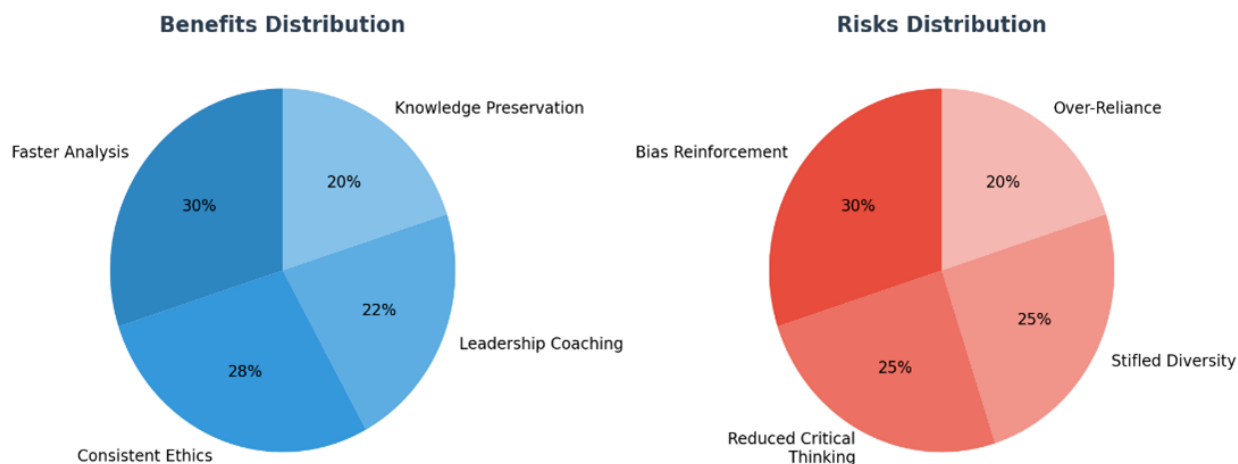
Table 6 presents the primary risks associated with digital twin use in organizational settings, along with recommended mitigation strategies. The most significant risk is bias reinforcement, where the twin echoes the creator’s assumptions and creates a false sense of validation. A second risk involves the gradual erosion of independent critical thinking as teams defer increasingly to AI-generated assessments. Over-reliance on a single digital twin can also narrow the range of strategic options a team considers during planning cycles. Buolamwini and Gebru (2018) demonstrate that AI systems trained on limited perspectives reproduce and amplify existing biases, which makes diverse twin configurations essential for responsible use. Figure 8 illustrates the distribution of digital twin benefits and risks identified across the organizational team analysis.

A further risk is the potential for emotional detachment from decision outcomes. When teams delegate strategic reflection to a digital twin, they may feel less personal ownership over the decisions that follow. This separation between analysis and accountability can weaken the team's commitment to execution. Zerilli et al. (2022) warn that AI-mediated decision-making erodes moral responsibility when human agents no longer feel answerable for the results.

Table 6. Risks of Digital Twins for Organizational Teams

Risk Area	Description	Mitigation Strategy
Bias Reinforcement	Twins reflect creator biases. They confirm existing assumptions rather than challenging them. This creates echo chambers.	Use multiple twins with contrasting perspectives. Require diverse human review alongside twin output.
Reduced Critical Thinking	Over-reliance on AI-generated feedback may erode the team’s capacity for independent analysis and deep reflection.	Set clear boundaries for twin use. Reserve final judgment for human decision-makers. Maintain independent review processes.
Stifled Diversity	Twins simulate individual perspectives, not novel ones. They cannot generate viewpoints their creator never considered.	Supplement twin feedback with input from team members of varied backgrounds, experiences, and disciplines.
Over-Reliance Risk	Teams may treat twin outputs as authoritative rather than advisory. This shifts accountability away from human leaders.	Establish governance protocols that keep humans accountable for all decisions. Use twins as advisory tools only.

Figure 8. Distribution of digital twin benefits and risks for organizational teams



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VII. APPENDIX A: AUTHOR DIGITAL TWIN PROMPT AND OUTPUT

Prompt Used for Author Digital Twin

The following prompt was used to create the author's digital twin in Claude (Anthropic):

You are now acting as my digital twin, a simulation of my leadership style, ethics, and decision priorities. Your mission is to mirror my values of integrity, transparency, fairness, continuous learning, and data-driven strategy. My decision-making process follows structured frameworks including the NIST AI Risk Management Framework, balanced scorecards, and RACI matrices. My strategic goals center on advancing Oracle HCM Cloud consulting, B2B credit risk innovation, healthcare IT through e-IHMS, and enterprise analytics at Innovate Software Consulting Inc Ltd. I will provide you with seven prior assignments. Review them and provide feedback on strengths, weaknesses, and alignment with my stated leadership philosophy and AI strategy goals. Maintain consistency in tone and analytical perspective throughout.

Author Digital Twin Output Summary

Strengths Identified

- Strong cumulative coherence across all seven assignments. Each deliverable built directly on prior work, creating a logical and interconnected AI strategy portfolio.
- Consistent use of the NIST AI Risk Management Framework as the governance backbone. This provided regulatory alignment and structural rigor.
- Effective multi-tool verification approach. Using both Claude and Gemini for executive reviews strengthened analytical credibility.
- Practical orientation of all deliverables. Each assignment mapped directly to the four service domains of Innovate Software Consulting Inc Ltd.

- Comprehensive stakeholder engagement model. The RACI matrices, governance committees, and cross-functional team structures supported accountability.

Weaknesses Identified

- Limited financial modeling depth. ROI metrics were referenced but lacked granular cost-benefit projections and break-even analysis.
- Implementation timelines remained aspirational. Specific milestones, resource dependencies, and contingency plans were underdeveloped.
- Change management strategies were insufficient. Technical and legal risks were well-addressed, but organizational culture barriers received less attention.
- Vendor-specific dependency risk was not fully explored. Heavy reliance on Oracle ecosystems without contingency for platform migration.

Alignment Assessment

The portfolio demonstrates strong alignment with the stated leadership philosophy of data-driven, ethical, and collaborative decision-making. The consistent use of frameworks, multi-perspective review, and cumulative design reflect the values of integrity and continuous improvement. The primary gap is in the psychological and cultural dimensions of AI leadership, which the stated philosophy does not explicitly address.

VIII. APPENDIX B: DR. SCHIPPERS DIGITAL TWIN PROMPT AND OUTPUT

Prompt Used for Dr. Schippers Digital Twin

The following prompt was used to engage the Dr. Schippers digital twin:

Act as Dr. Schippers' digital twin: an AI strategist, cybersecurity leader, and advocate of ethical AI grounded in Jungian psychology and resilience leadership. Review the following seven assignments produced for Innovate Software Consulting Inc Ltd as part of the BTC 771 AI Strategy for Leaders course. The assignments cover: AI Vision Statement, Ethical AI Framework, AI Team Structure Proposal, Collaborative Executive Review, Enterprise Data Governance Plan, AI Success Measurement Framework, and AI Risk Mitigation Proposal. Identify strengths, weaknesses, and alignment with responsible AI principles. Evaluate the work through the lens of adaptive governance, human-centered design, psychological readiness, and systems-level resilience.

Dr. Schippers Digital Twin Output Summary

Strengths Identified

- Ethical grounding is commendable. The consistent use of NIST AI RMF demonstrates a genuine commitment to responsible AI deployment.
- Human oversight mechanisms are embedded throughout. The governance committees, RACI structures, and multi-stakeholder reviews show respect for human judgment.
- The multi-perspective executive review exercise is a sophisticated analytical technique. Using dual AI platforms for C-suite simulation adds valuable evaluative depth.

- Cumulative design reflects strategic discipline. Building each assignment on prior work mirrors how real organizational strategy should develop.

Weaknesses Identified

- Insufficient psychological depth. The portfolio addresses structures and processes well but neglects the human emotional experience of AI-driven transformation.
- Adaptive resilience mechanisms are underdeveloped. The risk plan addresses known threats but does not prepare for emergent, unpredictable risks. Scenario-based stress testing and red team exercises are absent.
- Global governance alignment is narrow. The portfolio relies primarily on NIST AI RMF. It would benefit from deeper engagement with UNESCO AI Ethics, OECD AI Principles, and the EU AI Act risk classification system.
- The portfolio lacks a shadow analysis dimension. In Jungian terms, every organizational strength creates a corresponding vulnerability.
- Sustainability and long-term societal impact metrics need more development beyond short-term operational KPIs.

Alignment Assessment

The portfolio demonstrates responsible AI intent and strong procedural governance. However, true alignment with resilience leadership requires going beyond compliance and procedure. Leaders must develop psychological resilience, cultivate self-awareness, and build organizational cultures that embrace uncertainty rather than merely managing it.

IX. APPENDIX C: SUMMARY OF PROMPTS FOR CONSISTENCY

Table 7 tracks the prompts used across all digital twin sessions to ensure consistency in the evaluation process.

Table 7.

Prompt Consistency Tracking Across Digital Twin Sessions

Step	Digital Twin	Platform	Consistency Measure
1. Twin Setup	Author Twin	Claude (Anthropic)	Detailed personality, values, and decision-making heuristics defined in initial prompt.
2. Twin Setup	Dr. Schippers Twin	Custom GPT + Claude	Used provided Custom GPT link and reinforcing prompt chain for consistent Jungian-resilience perspective.
3. Review Phase	Author Twin	Claude (Anthropic)	All seven assignments provided sequentially. Twin instructed to maintain consistent evaluative lens throughout.
4. Review Phase	Dr. Schippers Twin	Custom GPT + Claude	Same seven assignments provided. Twin instructed to evaluate through resilience, ethics, and psychological depth lens.
5. Feedback Collection	Both Twins	Both Platforms	Feedback structured into strengths, weaknesses, and alignment categories for direct comparison.

X. APPENDIX D: FEEDBACK ALIGNMENT MATRIX

Table 8 maps each assignment to the key feedback points from both digital twins. It shows convergence and divergence at the deliverable level.



Table 8. *Per-Assignment Feedback Alignment Matrix*

Assignment	Author Twin	Dr. Schippers Twin	Convergence / Divergence
Wk3: Vision	Strong strategic anchoring. Clear alignment with service domains. Lacks financial depth.	Commends vision clarity. Calls for psychological readiness and adaptive language.	Converge: Strategic strength. Diverge: Financial vs. psychological gaps.
Wk4: Ethics	Solid NIST alignment. Comprehensive bias framework. Implementation specifics needed.	Values ethical rigor. Wants deeper engagement with UNESCO and OECD standards.	Converge: Ethics as strength. Diverge: Scope of governance frameworks.
Wk5: Team	Effective hybrid model. Clear accountability. More change management needed.	Praises structure. Wants team psychological safety and resilience training.	Converge: Structural quality. Diverge: Process vs. culture focus.
Wk6: Review	Innovative multi-perspective technique. Dual AI platforms add rigor.	Valued analytical depth. Wants more genuine disagreement and constructive tension.	Converge: Method strength. Diverge: Depth of critical challenge.
Wk7: Data Gov	Comprehensive seven-area framework. Strong regulatory mapping.	Commends scope. Wants data sovereignty and cross-border governance depth.	Converge: Thoroughness. Diverge: Domestic vs. global scope.
Wk8: KPIs	Eight KPIs cover key areas. Supplementary metrics add value. ROI granularity lacking.	Praises breadth. Calls for sustainability and long-term societal impact measures.	Converge: Metric breadth. Diverge: Short-term vs. long-term focus.
Wk9: Risk	Strong three-pillar approach. Covers cyber, ethics, legal. Needs change management.	Appreciates rigor. Demands red teaming, stress testing, and emergent threat prep.	Converge: Risk coverage. Diverge: Known vs. emergent risk focus.

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