A Synthesis of ECIS 2024 Knowledge

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This initial report summarizes the analysis of the digitized knowledge of ECIS 2024 papers submitted to the T-Rex project. Please keep in mind this is a biased sample. Our intention is to show the value of digitizing the knowledge presented at a conference, with the goal of institutionalizing this practice as a standard for AIS conferences.

Overall statistics are shown in Table 1 and Appendix 1. The data were analyzed using appropriate methods developed for causal knowledge analytics (Watson et al., 2024). Papers with models were included in all analyses. 50% of the papers without models contain explicit theories, and they are included in the theory analysis.

Table 1 Paper statistics

Category	Number
Total conference papers	349
Papers Coded	48
Papers with Models	18
Papers without Models	30
Theories	39
Concepts	87
Relation	103

Concept analysis

What concepts were studied and how were they defined?

Most concepts (65.5%) have at least one definition. Only three concepts (i.e., Gamification, Social Value, and Trust) are defined more than once (Table 2), and the definition similarity varies (0.48, 0.77, 0.33, respectively). See Appendix 2 for a complete list of definitions.

Table 2 Concepts with more than one definition

Concept	Definition	Publication
Gamification	Gamification refers to the design of information systems that offer experiences and motivations similar to games and consequently attempt to influence user behavior (Koivisto and Hamari, 2019).	Smeets, M. R., & Roetzel, P. G. (2024). The Moderating Role of Gamification in Reducing Algorithm Aversion in the Adoption of AI-based Decision Support Systems
	The use of game design elements in non-game contexts.	Ixmeier, A., & Kranz, J. (2024). The Effectiveness of Digital Interventions to Promote Pro-Environmental Behaviour: A Meta-Analysis.

Social value	The perceived social status or acceptance gained from using AI-generated solutions, a component of perceived value.	Mehler, M., Ellenrieder, S., & Buxmann, P. (2024). The Influence of Effort on the Perceived Value of Generative AI: A Study of the IKEA Effect.
	The benefits that users derive from the social interactions and connections facilitated by AI influencers.	Nallaperuma, K., Kaluarachchi, C. D., & Nguyen, L. (2024). Navigating the nexus of Authenticity, Value And Risk: A Situational Privacy Calculus Model in exploring the use of AI Influencers.
Trust	The degree to which a person feels that they can rely on the AI to reduce vulnerability and/or uncertainty in a given situation or instance.	Ellenrieder, S., Ellenrieder, N., Hendriks, P., & Mehler, M. (2024). Pilots and Pixels: A Comparative Analysis of Machine Learning Error Effects on Aviation Decision Making.
	Trust is the willingness to be vulnerable to another party's actions, expecting them to perform an important action, regardless of the ability to control that other party.	Moritz, J., & Schmidt, C. (2024). Trust in algorithmic management: The role of justice and prior discrimination experience.

Concept-relationship analysis

What relationships were associated with a concept?

Concept relationships (i.e., antecedents and consequents) summarize the perspectives from which a concept is studied. For instance, a summarization of *Trust*-related concepts is listed in Table 3.[1] Concepts that impact *Trust* include justice-related concepts, information systems design, and human interaction with information systems. The primary outcome associated with *Trust* is *Purchase likelihood*.

Table 3 Antecedents and Consequents of Trust-Related Concepts

Type	Concept	Frequency
Antecedent	Informational Justice	5
	Interpersonal Justice	5
	Robot Design (Emotional vs. Rational)	2
	Interaction with incorrect ML-based DSSs	1
	Explainability	1
Consequent	Purchase Likelihood	2

Which mediators or moderators were related to a concept?

By pinpointing potential moderators and mediators, scholars can decide if they need to discuss them as related literature, consider including them during research model development, and examine results considering the mechanism of why and the conditions under which certain effects vary. The moderators and mediators are reported in Table 4 and Table 5.

Table 4 Moderators

Moderator	Associated relationship	Frequency

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[1] Trust-related concepts include: "Human-like Trust", "Trust", "Trust in AI", and "System-like Trust".

Discrimination Experience	Algorithmic management -> Informational Justice	2
	Algorithmic management -> Interpersonal Justice	
Type of Task	Algorithmic management -> Interpersonal Justice	1

Table 5 Top three Mediators

Mediator	Associated relationship	Frequency
Prior Need Satisfaction	Use of generative AI -> Perceived Autonomy	3
	Use of generative AI-> Perceived Relatedness	
	Use of generative AI -> Perceived Competence	
Cognitive service satisfaction	Perceived humanness -> Negative emotions	2
	Perceived humanness -> Positive emotions	
Job Identification	Use of generative AI -> Perceived Autonomy	2
	Use of generative AI -> Perceived Competence	

Which concepts are central to the knowledge network?

Centrality measures quantify a concept's position in a network (Wasserman & Faust, 1994). The fundamental antecedents are mostly AI-related, suggesting that scholars focused on understanding the impact of AI (Table 6). The popular consequents are outcomes of information systems, such as intention to use and social value (Table 7). Satisfaction and sustainable IS strategy are influential mediators, elucidating causal mechanisms (Table 8).

Table 6 Fundamental antecedents

Concept	Outdegree
AI Influencer Authenticity	10
Use of generative AI	8
Effort in Collaboration	8
Perceived humanness	6
Generative Artificial Intelligence	3

Table 7 Popular consequents

Concept	Indegree
Intention to use AI Influencer	10
Cognitive service satisfaction	5
Trust	5
Social Value	3
Positive emotions	3

Concept	Betweenness
Cognitive service satisfaction	5.5
Sustainable IS Strategy	5.0
Positive emotions	3.0
Trust	3.0
Social Value	1.2

Which concepts are peripheral in the knowledge network?

The relative position of a concept in a knowledge network highlights its importance or novelty. Concepts with a high periphery index (Wasserman & Faust, 1994) are positioned at the edge of a knowledge network, indicating that they are peripheral or novel and have not been extensively researched (Table 9). The most reported peripheral concepts are those related to *value* and *risk*. Scholars can further explore why these concepts are on the edge. Do they deal with novel phenomena? How could IS scholars further develop them?

Table 9 Ten Concepts with the Highest Periphery Index

Concept	Periphery Index
Appreciation	1
Emotional Value	1
Hedonic Value	1
Perceived Value	1
Privacy Risk	1
Psychological Risk	1
Quality Value	1
Utility Value	1
Value-for-money	1
Willingness to Pay (WTP)	1

Which concepts unite fragmented knowledge?

Cut-points (Wasserman & Faust, 1994) connect causal models and unite fragmented knowledge. The removal of any of the concepts in Table 10 creates network fragmentation, indicated by the increasing number of disconnected sub-networks. Cut-points represent essential IS knowledge connections, as without them, the knowledge network fragments.

Table 10 Cut-point Concepts

Concept	Network fragmentation impact
Effort in Collaboration	7
Ability to delay gratification	3
Generative Artificial Intelligence	2
Pro-environmental behaviour	2

Model analysis

Which models are most distinguished?

Conceptual isomorphism measures model similarity considering both causal graph structure and concept semantics (Song et al., 2021). We conducted a pairwise similarity analysis of causal models to compute their *similarity* (i.e., maximum pairwise similarity score) and *conformity* (i.e., minimum pairwise similarity score). The *Similarity* index informs how distinct a model is from others, with a lower index suggesting a higher level of uniqueness. *Conformity* indicates how much a model aligns with other models, with a higher index suggesting a higher level of conformity (Table 11). The results are shown in Figure 1 and Appendix 3.

The measure of similarity and conformity evaluates the degree of model distinguishability and alignment, and hierarchical clustering is used to define the categories. Emergent divergence models show a low level of similarity and conformity, indicating that they are distinct from other studies and deviate from norms. For instance, Richardson et al. (2024) screen use effects on delayed gratification ability, building on social learning theory. Conventional variation models, despite having relatively similar counterparts, differ from the majority, such as those of Beverungen et al. (2024) and Smeets and Roetzel (2024). Distinctive alignment models lack close parallels but align with most models, such as (Ixmeier & Kranz, 2024; Nallaperuma et al., 2024). Lastly, consistent alignment models demonstrate high similarity with other models.

Table 11 Conceptual isomorphism quadrants and representative models

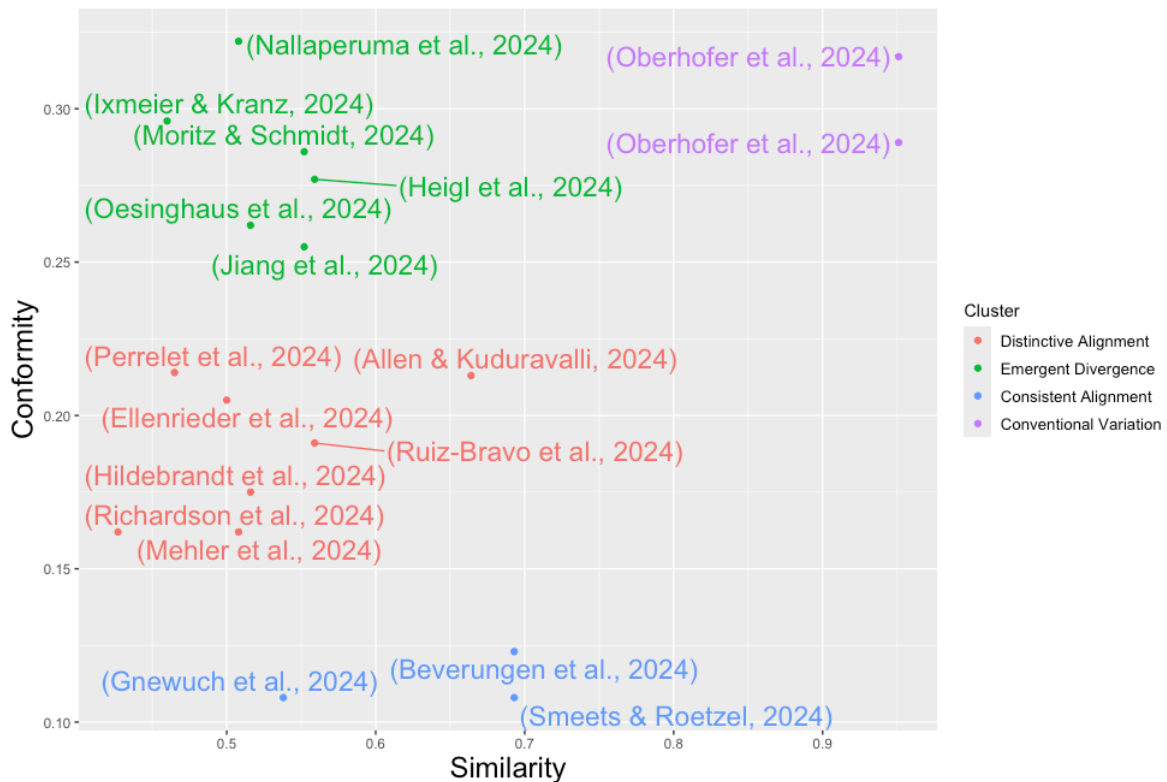|	Low similarity	High similarity
Low conformity	Emergent Divergence (e.g., Richardson et al., 2024)	Conventional variation (e.g., Beverungen et al., 2024; Smeets & Roetzel, 2024)
High conformity	Distinctive Alignment (e.g., Ixmeier & Kranz, 2024; Nallaperuma et al., 2024)	Consistent alignment (e.g., Oberhofer et al., 2024)

Figure 1 Similarity and Conformity Distribution

Theme analysis

What is the level of knowledge fragmentation?

Network connectivity reveals the level of fragmentation of a knowledge network, measured by concept density, the ratio of the number of concepts shared among models to the total number of concepts. High concept density suggests greater convergence among scholars on concepts of interest, while low concept density suggests fragmentation. Analysis of the analyzed ECIS articles demonstrates high fragmentation, evidenced by minimal concept overlap across studies.

Table 12 Concept Density

Concepts appear in more than one model	11
Concepts total count	82
Density	0.13

What is the correspondence between concepts and conference tracks?

The convergence among tracks is rather difficult to discover without the assistance of analytics. We extract the concepts studied in each track and analyze their correspondence through an UpSet diagram (Lex et al., 2014). The left side of the visualization shows the number of concepts in each track. For instance, the *Blockchain and Fintech* track includes 14 concepts. The body of the visual represents, by a solid dot (●), how tracks overlap in

terms of related concepts (Figure 2). For example, *Blockchain and Fintech* overlaps with *Digital Service Systems*. Vertical bars on the top represent the size of each intersection. For instance, the first column in the matrix indicates that *Blockchain and Fintech* share one concept (i.e., *social value*) with *Digital Service Systems*. There is minimum overlap among tracks on studied concepts, suggesting a high degree of specialization.
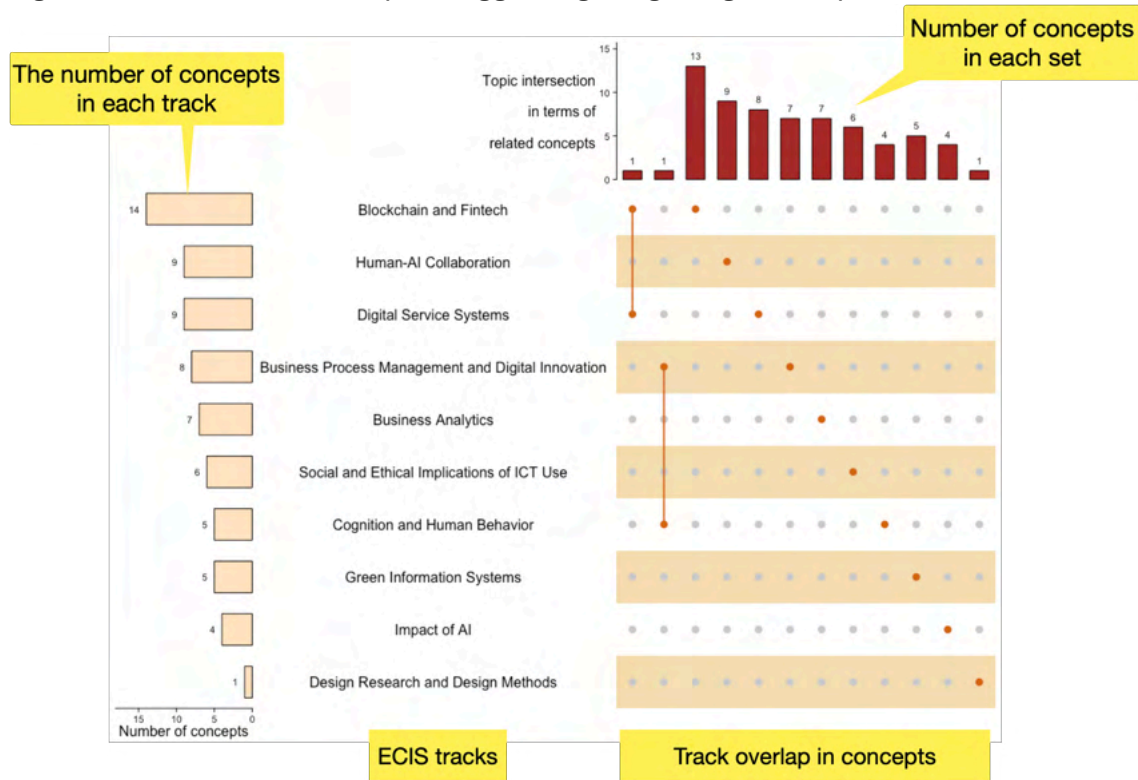

Figure 2 Track Co-occurrence by Concepts

Theory analysis

What theories were studied?

Social comparison theory is the most studied with 6 connections, and the other theories appear only once (Appendix 4).

What is the correspondence among theories?

Tracks share little theories except for social comparison theory, which appears both in *Blockchain and Fintech* and *Human-AI collaboration,* as shown in the first column of Figure 3. While there is minimum theory convergence in conference tracks, several publications utilize multiple theoretical perspectives. For instance, Beverungen et al. (2024) discuss *BPM life cycle*, *SECI model*, and *Social technical Environment*. Theories, including *Deterrence Theory*, *Protection Motivation Theory*, and *Metaphors* are addressed by Soliman and Järveläinen (2024).
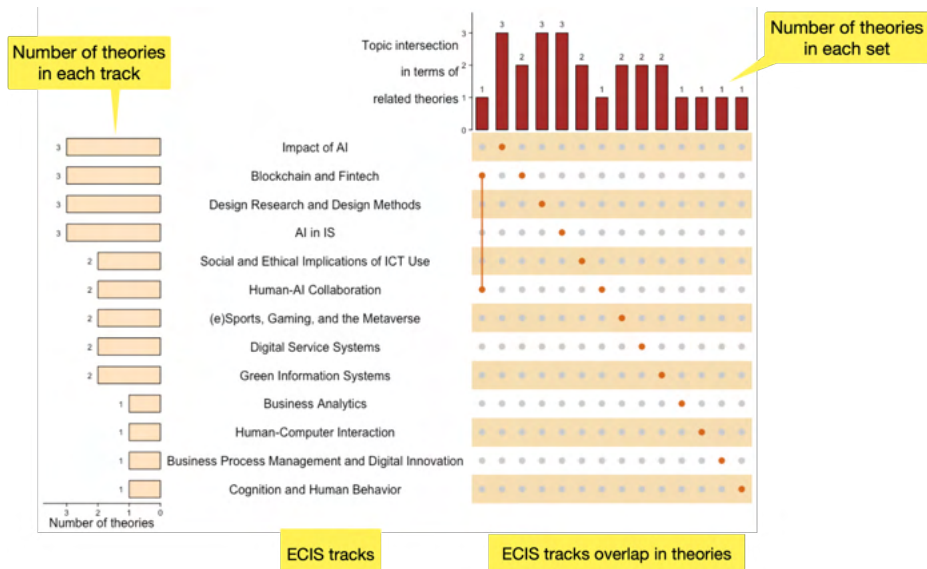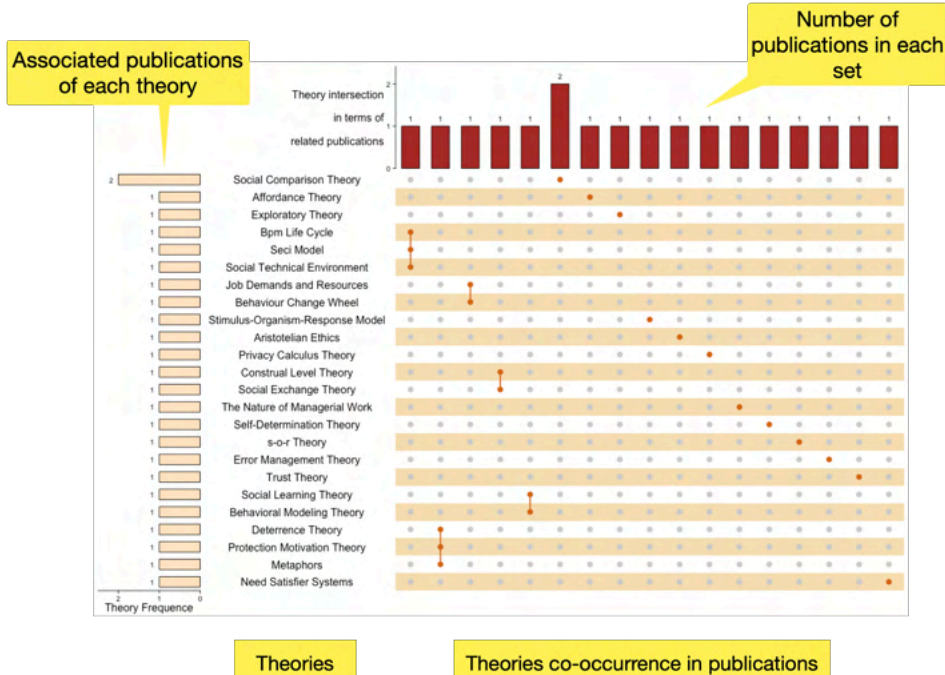
Figure 3 Theory Co-occurrence by Tracks

Figure 4 An UpSet Diagram of Theory Co-occurrence in Publications[2]

Summary

We summarize the key lessons learned from this biased set papers at each level in Table 13. These findings are purely illustrative of the potential value of digitizing a conference's papers. They should not be used to make factual statements about ECIS 2024.

Table 13 Learned lessons from the coded papers

Level	Lesson
Concept	Most concepts are clearly and uniquely defined.

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[2] All theories are included.

	A few concepts (e.g. Gamification, Social Value, Trust) have multiple definitions, with varying levels of definition similarity.
Concept-relationship	Understanding the impact of AI is a strong focus of ECIS.
	The most studied outcomes of information systems include satisfaction, trust, and social value.
Model	Models show varying degrees of similarity and conformity.
	Models are categorized are categorized into emergent divergence, conventional variation, distinctive alignment, and consistent alignment.
Theme	There is minimum overlap among tracks on studied concepts, suggesting a high degree of specialization.
	The knowledge network shows high fragmentation.
Theory	Social comparison theory is the most studied theory.
	Tracks rarely overlap in theories.
	Several publications utilize multiple theoretical perspectives.

Reference

Allen, L., & Kuduravalli, S. (2024). TALKING THROUGH TURF WARS: HOW DIALOGUE HELPS RESOLVE ONLINE CO-PRODUCTION DISPUTES.

Beverungen, D., Bartelheimer, C., Assbrock, A., & Löhr, B. (2024). Workaround-to-Innovation-Exploring Bottom-up Process Re-Design.

Ellenrieder, S., Ellenrieder, N., Hendriks, P., & Mehler, M. (2024). Pilots and Pixels: A Comparative Analysis of Machine Learning Error Effects on Aviation Decision Making.

Gnewuch, U., Hanschmann, L., Kaiser, C., Schallner, R., & Mädche, A. (2024). Robot Shopping Assistants: How Emotional versus Rational Robot Designs Affect Consumer Trust and Purchase Decisions.

Heigl, R. M., Weber, P., & Hinz, O. (2024). The TikTok Equation: How Congruence Drives Influencer Marketing Success–A Mixed-Methods Study.

Hildebrandt, F., Brendel, B., & Dennis, A. (2024). Is it me, or is it you?–How Perceived Humanness Influences Users' Cognitive and Affective Satisfaction with Conversational Agents that Make Errors.

Ixmeier, A., & Kranz, J. (2024). The Effectiveness of Digital Interventions to Promote Pro-Environmental Behaviour: A Meta-Analysis.

Jiang, M., Karanasios, S., & Breidbach, C. (2024). Generative AI In The Wild: An Exploratory Case Study of Knowledge Workers.

Lex, A., Gehlenborg, N., Strobelt, H., Vuillemot, R., & Pfister, H. (2014). UpSet: Visualization of Intersecting Sets. *IEEE transactions on visualization and computer graphics*, *20*(12), 1983-1992. https://doi.org/10.1109/tvcg.2014.2346248

Mehler, M., Ellenrieder, S., & Buxmann, P. (2024). The Influence of Effort on the Perceived Value of Generative AI: A Study of the IKEA Effect.

Moritz, J., & Schmidt, C. (2024). TRUST IN ALGORITHMIC MANAGEMENT: THE ROLE OF JUSTICE AND PRIOR DISCRIMINATION EXPERIENCE.

Nallaperuma, K., Kaluarachchi, C. D., & Nguyen, L. (2024). Navigating the nexus of Authenticity, Value And Risk: A Situational Privacy Calculus Model in exploring the use of AI Influencers.

Oberhofer, V. M., Seeber, I., & Maier, R. (2024). Delegation or Augmentation-Strategies for Working Effectively With Generative Conversational Artificial Intelligence.

Oesinghaus, A., Elshan, E., & Sandvik, H. O. (2024). The Future of Work Unleashed: Generative AI's Role in Shaping Knowledge Workers' Autonomous Motivation.

Perrelet, S., Spizzo, M. N., Gertschen, M. M., & Dibbern, J. (2024). SUSTAINABLE SOFTWARE ENGINEERING: A VIEW ON STRATEGY AND PRACTICES FOR ORGANIZATIONAL BENEFITS.

Richardson, B., Fife, P. T., Steed, J. D., Crane, C., & Gaskin, J. (2024). The New Marshmallow: The Effects of Screen Use on Children's Ability to Delay Gratification.

Ruiz-Bravo, N. V., Selander, L., & Roshan, M. (2024). Preparing, Fostering, and Fallowing: Cultivating Digital Safe Spaces.

Smeets, M. R., & Roetzel, P. G. (2024). The Moderating Role of Gamification in Reducing Algorithm Aversion in the Adoption of AI-based Decision Support Systems.

Soliman, W., & Järveläinen, J. (2024). Reconceptualizing the Human in the Loop: A Problematization of Taken-for-Granted Metaphors in Cybersecurity Research.

Song, Y., Watson, R., & Zhao, X. (2021). Literature Reviewing: Addressing the Jingle and Jangle Fallacies and Jungle Conundrum Using Graph Theory and NLP. International conference on information systems 2021 Proceedings, Austin.

Wasserman, S., & Faust, K. (1994). Social network analysis: Methods and applications.

Watson, R. T., Song, Y., Zhao, X., & Webster, J. (2024). Extending the Foresight of Phillip Ein-Dor: Causal Knowledge Analytics. *Journal of the Association for Information Systems*, *25*(1), 145-157. https://doi.org/10.17705/1jais.00871

Appendix 1 Publication list

Table 14 Coded articles in ECIS 2024

No.	Publications	Track
1	Nguyen, B, Scholta, H (2024). from Text to Model to Execution: a Literature Review on Methods for Creating Conceptual Models from Legal Regulations.	General Track
2	Zeiss, C, Straub, L, Schaschek, M, Winkelmann, A (2024). the Obscure World of Digital Assets ,AI Design Principles for User-Centered Platforms.	Blockchain and Fintech
3	Leffrang, D, Muller, O (2024). Algorithmic Advice-Taking Beyond Mae: The Role of Negative Prediction Outliers and Statistical Literacy in Algorithmic Advice-Taking.	Business Analytics
4	Lippert, I (2024). Artificial Intelligence and the Future of Managerial Work: a Theoretical Review of Managerial Roles.	Future of Work
5	Durani, K (2024). Between Virtues and Vices: An Aristotelian Perspective on Wearable Information Systems.	Health Information Technology and IS for Healthcare
6	Shollo, A, Vassilakopoulou, P (2024). Beyond Risk Mitigation: Practitioner Insights on Responsible Ai as Value Creation.	Impact of Artificial Intelligence on Organizations and Society
7	Oberhofer, V. M., Seeber, I., & Maier, R. (2024). Delegation or Augmentation , AI Strategies for Working Effectively with Generative Conversational Artificial Intelligence.	Impact of Artificial Intelligence on Organizations and Society
8	Birnstiel, S., Steinkamp, L., Dümler, B., & Morschheuser, B. (2024). Designing Gamification for Team Sports: Mapping of the Problem Space and Design Recommendations.	(e)Sports, Gaming, and the Metaverse
9	Safadi, H, Watson, R (2024). Digital Symbiosis: a New Perspective on Digital Ecosystems for Understanding their Influence.	IS Strategy, Governance and Sourcing in the Digital Age
10	Alaerts, L, Reich, R, Pauwels, M, Van Acker, K (2024). Embedding a Circular Economy Monitor in Public Administration.	Green Information Systems and Sustainable Development
11	Johnson, C (2024). Engaging Future Ethical Risk: using Speculative Foresight Techniques to Bridge Epistemic Distance Within the Context of Corporate Digital Responsibility .	Futures: A Novel Site of Inquiry and Imagination
12	Iivari, N, Hartikainen, H, Ventä-Olkkonen, L, Sharma, S, Lehto, E (2024). Exploring Digital Futures with Children Implications for a Future-Oriented is Research.	Futures: A Novel Site of Inquiry and Imagination
13	Mittermeier, F, Hund, A, Beimborn, D, Frey, J, Hildebrandt, Y (2024). Externalizing Digital Options Thinking: How Corporate Venture Builders Generate Opportunities to Invest in Digital Innovation.	IS Strategy, Governance and Sourcing in the Digital Age

14	Jiang, M, Karanasios, S, Breidbach, C (2024). Generative Ai in the Wild: An Exploratory Case Study of Knowledge Workers Knowledge Workers.	Impact of Artificial Intelligence on Organizations and Society
15	Murlowski, C, Bach, M, Morana, S (2024). Investigating the Everyday Use of Individuals with Augmented Reality.	Social Media, Virtual Worlds, and Digital Work
16	Hildebrandt, F., Brendel, B., & Dennis, A. (2024). Is it Me, or is it You? How Perceived Humanness Influences Users' Cognitive and Affective Satisfaction with Conversational Agents that Make Errors.	Human-Computer Interaction
17	Xie, H, Namvar, M, Risius, M, Akhlaghpour, S (2024). Navigating Implicit Hate Speech - a Scoping Review.	Social Media, Virtual Worlds, and Digital Work
18	Meier, M (2024). Navigating the Landscape of it Threats: a Literature Review and the Road Ahead.	Human-Computer Interaction
19	Nallaperuma, K, Kaluarachchi, C, Nguyen, L (2024). Navigating the Nexus of Authenticity, Value and Risk: a Situational Privacy Calculus Model in Exploring the Use of Ai Influencers.	Artificial Intelligence in IS Research and Practice
20	Ellenrieder, S, Ellenrieder, N, Hendriks, P, Mehler, M (2024). Pilots and Pixels: a Comparative Analysis of Machine Learning Pilots and Pixels: a Comparative Analysis of Machine Learning Error Effects on Aviation Decision Making Error Effects on Aviation Decision Making.	Human-AI Collaboration
21	Ruiz-Bravo, N, Selander, L, Roshan, M (2024). Preparing, Fostering, and Fallowing: Cultivating Digital Safe Spaces.	Social Media, Virtual Worlds, and Digital Work
22	Soliman, W., & Järveläinen, J. (2024). Reconceptualizing the Human in the Loop: a Problematization of Taken-for-Granted Metaphors in Cybersecurity Research.	General Track
23	Mettler, T (2024). Research, Careers, and Greed: An is Perspective on a Human Failing and How it Threatens the Future of the Discipline.	Futures: A Novel Site of Inquiry and Imagination
24	Lefebvre, H, Legner, C (2024). Rethinking Data Governance: a Viable System Model.	Business Analytics
25	Gnewuch, U., Hanschmann, L., Kaiser, C., Schallner, R. (2024). Robot Shopping Assistants: How Emotional Versus Rational Robot Designs Affect Consumer Trust and Purchase Decisions.	Human-Computer Interaction
26	Hanratty, S, Cushen, J, Helfert, M (2024). Self-Regulating Stress in the Professional Workplace: a Review of Purpose, Focus and Design of Universal Digital Interventions .	People First: Constructing Digital Futures Together
27	Perrelet, S, Spizzo, M, Gertschen, M, Dibbern, J (2024). Sustainable Software Development: a View on Strategy and Practices for Organizational Benefits.	Green Information Systems and Sustainable Development
28	Johny, L, Dechant, H, Schneider, J (2024). Taking Data Scientists Out-of-the-Loop in Knowledge Intense Analytics , a Case Study for Product Designs.	Artificial Intelligence in IS Research and Practice
29	Allen, L, Kuduravalli, S (2024). Talking Through Turf Wars: How Dialogue Helps Resolve Online Co-Production Disputes.	Future of Work
30	Weber, M., Knabl, O. B., Böttcher, T. P., Hein, A., & Krcmar, H. (2024). The AI Transformation? Unpacking the Impact of Ai on Incumbent Business Models.	Digital Transformation
31	Ixmeier, A, Kranz, J (2024). The Effectiveness of Digital Interventions to Promote Pro- Environmental Behaviour: a Meta-Analysis Environmental Behaviour: a Meta-Analysis.	Green Information Systems and Sustainable Development
32	Oesinghaus, A, Elshan, E, Sandvik, H (2024). The Future of Work Unleashed: Generative Ai's Role in Shaping Knowledge Workers' Autonomous Motivation.	Artificial Intelligence in IS Research and Practice

33	Mehler, M, Ellenrieder, S, Buxmann, P (2024). The Influence of Effort on the Perceived Value of Generative Ai: a Study of the Ikea Effect.	Cognition and Human Behavior in Information Systems
34	Huang, L, Lin, Y, Peng, J (2024). The Influence of Social Capital and Consumer Empowerment on Online Insurance Purchasing.	Design Research and Design Methods in Information Systems
35	Wolf, L, Madlberger, M (2024). The Influence of Submission Devices on User-Generated Content , a Systematic Literature Review and Weight Analysis.	Cognition and Human Behavior in Information Systems
36	Schütz, F., Lukowitsch, A., Hoevel, G. G., & Trang, S. (2024). The Lower the Risk, the Lower the Premium? Conceptualizing an Artifact for Usage-Based Pricing of Personal Cyber Insurance Policies.	General Track
37	Smeets, M, Roetzel, P (2024). The Moderating Role of Gamification in Reducing Algorithm Aversion in the Adoption of Ai-Based Decision Support Systems.	Artificial Intelligence in IS Research and Practice
38	Richardson, B, Fife, P, Steed, J, Crane, C, Gaskin, J (2024). The New Marshmallow: The Effects of Screen Use on Children's the New Marshmallow: The Effects of Screen Use on Children's Ability to Delay Gratification Ability to Delay Gratification.	Social and Ethical Implications of ICT Use
39	Cagnelle, J, Pascal, A, Metailler, T (2024). The Paradox Theory in the Digital Transformation of Smes.	Digital Transformation
40	Heigl, R, Weber, P, Hinz, O (2024). The Tiktok Equation: How Congruence Drives Influencer Marketing Success , a Mixed-Methods Study.	Social Media, Virtual Worlds, and Digital Work
41	Moritz, J, Schmidt, C (2024). Trust in Algorithmic Management: The Role of Justice and Prior Trust in Algorithmic Management: The Role of Justice and Prior Discrimination Experience.	Future of Work
42	Kalckreuth, N, Kopka, M, Appel, J, Feufel, M (2024). Unlocking the Potential of the Electronic Health Record ‚Äî the Influence of Transparency Features.	Health Information Technology and IS for Healthcare
43	K R, S, Mathew, S (2024). Vision Beyond Sight: Affordances of Assistive Technologies for the Visually Impaired .	Human-Computer Interaction
44	Scheerschmidt, T (2024). Voice Analytics Applications and Corporate Communication Current State and Future Research Directions.	General Track
45	Strobel, G, Banh, L (2024). What Did the Doctor Say? Empowering Patient Comprehension with Generative Ai.	Health Information Technology and IS for Healthcare
46	Beverungen, D., Bartelheimer, C., Assbrock, A., & Löhr, B. (2024). Workaround-to-Innovation Exploring Bottom-Up Process Re-Design.	Business Process Management and Digital Innovation
47	Kruse, P (2024). a Design-Driven Approach to Facilitate University-Sme Cooperation.	Digital Service Systems
48	Pillet, J (2024). a Linguistic Perspective on AI-Generated Scales: Readability, Diversity, and Content Validity Considerations .	Innovative Research Methods

Appendix 2 Concept definitions

Concept	Definition	Publication
AI influencer authenticity	The extent to which an AI influencer aligns with socially constructed ideals and maintains consistency with their established storylines and character-driven narratives	Xie, H, Namvar, M, Risius, M, Akhlaghpour, S (2024). Navigating Implicit Hate Speech - a Scoping Review.

AI recommendation	Recommendation of AI-based DSS to decision maker	Smeets, M, Roetzel, P (2024). The Moderating Role of Gamification in Reducing Algorithm Aversion in the Adoption of AI-Based Decision Support Systems.
Algorithmic management	The delegation of coordination and control functions traditionally performed by managers	Moritz, J., & Schmidt, C. (2024). Trust in algorithmic management: The role of justice and prior discrimination experience.
Appreciation	Reflects the degree to which individuals acknowledge and value a particular aspect, such as the quality or uniqueness of AI-generated content.	Mehler, M., Ellenrieder, S., & Buxmann, P. (2024). The Influence of Effort on the Perceived Value of Generative AI: A Study of the IKEA Effect.
Behavioral intention to use the technology	Indicates individuals' likelihood of using GenAI in the future, based on their experiences and perceptions	Mehler, M., Ellenrieder, S., & Buxmann, P. (2024). The Influence of Effort on the Perceived Value of Generative AI: A Study of the IKEA Effect.
Boosting	Empowering people by expanding (boosting) their competences and thus helping them to reach their objectives	Ixmeier, A., & Kranz, J. (2024). The Effectiveness of Digital Interventions to Promote Pro-Environmental Behaviour: A Meta-Analysis.
Business value (outcome)	Net quantifiable benefit derived from a business endeavor that may be tangible, intangible, or both.	Perrelet, S, Spizzo, M, Gertschen, M, Dibbern, J (2024). Sustainable Software Development: a View on Strategy and Practices for Organizational Benefits.
Corporate sustainability beliefs	The extent an organization takes notice of sustainability issues, such as company's social, environmental, and economic responsibilities.	Perrelet, S, Spizzo, M, Gertschen, M, Dibbern, J (2024). Sustainable Software Development: a View on Strategy and Practices for Organizational Benefits.
Cultivation	Cultivation can refer to the intentional efforts to foster the growth, development, and safeness of individuals or communities within a digital space	Ruiz-Bravo, N, Selander, L, Roshan, M (2024). Preparing, Fostering, and Fallowing: Cultivating Digital Safe Spaces.
Decision-making performance	Performance of decision maker	Smeets, M. R., & Roetzel, P. G. (2024). The Moderating Role of Gamification in Reducing Algorithm Aversion in the Adoption of AI-based Decision Support Systems
Dimension (columns and rows)	Conceptual framework for process innovation	Beverungen, D., Bartelheimer, C., Assbrock, A., & Löhr, B. (2024). Workaround-to-Innovation Exploring Bottom-Up Process Re-Design.
Effort in collaboration	Represents the level of energy, time, or resources invested by participants in the creation of content using GenAI. It influences the perceived value of the final output	Mehler, M., Ellenrieder, S., & Buxmann, P. (2024). The Influence of Effort on the Perceived Value of Generative AI: A Study of the IKEA Effect.

Emotional value	The emotional satisfaction derived from AI-generated solutions, a component of perceived value.	Mehler, M., Ellenrieder, S., & Buxmann, P. (2024). The Influence of Effort on the Perceived Value of Generative AI: A Study of the IKEA Effect.
Fallowing	Temporal suspension and a time to reflect and improve the quality of the space	Ruiz-Bravo, N, Selander, L, Roshan, M (2024). Preparing, Fostering, and Fallowing: Cultivating Digital Safe Spaces.
Fostering	Form of maintenance work aimed at ensuring adherence to the rule systems and protecting norms and beliefs	Ruiz-Bravo, N, Selander, L, Roshan, M (2024). Preparing, Fostering, and Fallowing: Cultivating Digital Safe Spaces.
Gamification	Gamification refers to the design of information systems that offer experiences and motivations similar to games and consequently attempt to influence user behavior (Koivisto and Hamari, 2019)	Smeets, M. R., & Roetzel, P. G. (2024). The Moderating Role of Gamification in Reducing Algorithm Aversion in the Adoption of AI-based Decision Support Systems
Gamification	The use of game design elements in non-game context	Ixmeier, A., & Kranz, J. (2024). The Effectiveness of Digital Interventions to Promote Pro-Environmental Behaviour: A Meta-Analysis.
Genai (generative artificial intelligence)	Denotes a type of AI that autonomously generates content, such as images or text, based on patterns and data inputs. GenAI aims to automate tasks traditionally done by humans	Mehler, M., Ellenrieder, S., & Buxmann, P. (2024). The Influence of Effort on the Perceived Value of Generative AI: A Study of the IKEA Effect.
Generative artificial intelligence	The category of sophisticated AI systems that are able to generate new content in such form as text, image, video or other creative content by discerning patterns within existing data	Jiang, M, Karanasios, S, Breidbach, C (2024). Generative Ai in the Wild: An Exploratory Case Study of Knowledge Workers Knowledge Workers.
Hedonic value	The pleasure and entertainment value that users experience when engaging with AI influencers	Nallaperuma, K., Kaluarachchi, C. D., & Nguyen, L. (2024). Navigating the nexus of Authenticity, Value And Risk: A Situational Privacy Calculus Model in exploring the use of AI Influencers.
Human-like trust	People attribute human-like qualities and characteristics to technologies, researchers have used this conceptualization of human-like trust to also study trust in technology	Gnewuch, U., Hanschmann, L., Kaiser, C., Schallner, R. (2024). Robot Shopping Assistants: How Emotional Versus Rational Robot Designs Affect Consumer Trust and Purchase Decisions.
Informational justice	Informational justice concerns the information and explanations provided in a specific context	Moritz, J., & Schmidt, C. (2024). Trust in algorithmic management: The role of justice and prior discrimination experience.
Intention to use AI influencer	Users' willingness and inclination to engage with AI influencers by following and interacting with them	Nallaperuma, K., Kaluarachchi, C. D., & Nguyen, L. (2024). Navigating the nexus of Authenticity, Value And Risk: A Situational Privacy Calculus

		Model in exploring the use of AI Influencers.
Interpersonal justice	Interpersonal justice refers to the quality of interpersonal treatment	Moritz, J., & Schmidt, C. (2024). Trust in algorithmic management: The role of justice and prior discrimination experience.
Knowledge integration	Dialogue that attempts to formulate a resolution to a content dispute by selectively integrating information shared by the community	Allen, L, Kuduravalli, S (2024). Talking Through Turf Wars: How Dialogue Helps Resolve Online Co-Production Disputes.
Knowledge staking	Information sharing dialogue that stakes out 'the facts' of a discussion participant's personal perspective along with a field of evidence that substantiates their point of view	Allen, L, Kuduravalli, S (2024). Talking Through Turf Wars: How Dialogue Helps Resolve Online Co-Production Disputes.
Learning approach scrutinization	Refers to scrutinizing novel but substantial changes experienced by individual KWers.	Jiang, M, Karanasios, S, Breidbach, C (2024). Generative Ai in the Wild: An Exploratory Case Study of Knowledge Workers Knowledge Workers.
Mental workload	The costs incurred by an individual while accomplishing a task at a certain performance level	Ellenrieder, S., Ellenrieder, N., Hendriks, P., & Mehler, M. (2024). Pilots and Pixels: A Comparative Analysis of Machine Learning Error Effects on Aviation Decision Making.
Nudging	The use of user-interface design elements to guide people's behaviour in digital choice environments	Ixmeier, A., & Kranz, J. (2024). The Effectiveness of Digital Interventions to Promote Pro-Environmental Behaviour: A Meta-Analysis.
Organism	Where evaluation of the congruence of the stimulus takes place	Heigl, R, Weber, P, Hinz, O (2024). The Tiktok Equation: How Congruence Drives Influencer Marketing Success , a Mixed-Methods Study.
Organizational benefit	Degree to which employees believe that their organization values their contributions and cares about their well-being and fulfills socioemotional needs.	Perrelet, S, Spizzo, M, Gertschen, M, Dibbern, J (2024). Sustainable Software Development: a View on Strategy and Practices for Organizational Benefits.
Perceived autonomy	The need for autonomy refers to acting with a sense of control over one's behavior. It involves having choices and being the origin of one's actions rather than being driven by external forces. For	Oesinghaus, A, Elshan, E, Sandvik, H (2024). The Future of Work Unleashed: Generative Ai's Role in Shaping Knowledge Workers' Autonomous Motivation.
Perceived competence	Being able to perform tasks quicker or tackle more complex tasks	Oesinghaus, A, Elshan, E, Sandvik, H (2024). The Future of Work Unleashed: Generative Ai's Role in Shaping Knowledge Workers' Autonomous Motivation.
Perceived value	Represents an individual's subjective assessment or judgment of the worth, utility, or desirability of a product or service. It influences	Mehler, M., Ellenrieder, S., & Buxmann, P. (2024). The Influence of Effort on the Perceived Value of

	decisions related to usage, purchase, or recommendation	Generative AI: A Study of the IKEA Effect.
Preparing	It involves deciding upon guidelines and rules for inclusion and exclusion and requires significant work	Ruiz-Bravo, N, Selander, L, Roshan, M (2024). Preparing, Fostering, and Fallowing: Cultivating Digital Safe Spaces.
Presented stimulus	Presented TikTok Profile with Ad	Heigl, R, Weber, P, Hinz, O (2024). The Tiktok Equation: How Congruence Drives Influencer Marketing Success , a Mixed-Methods Study.
Privacy risk	The potential negative consequences and concerns associated with the collection, storage, utilization, and transmission of personal data by AI influencers	Nallaperuma, K., Kaluarachchi, C. D., & Nguyen, L. (2024). Navigating the nexus of Authenticity, Value And Risk: A Situational Privacy Calculus Model in exploring the use of AI Influencers.
Pro-environmental behaviour	Any behaviour, such as buying sustainable electronics, switching off electronic devices, or using sustainable data centres, that aims to reduce negative impact of human activity on the environment	Ixmeier, A., & Kranz, J. (2024). The Effectiveness of Digital Interventions to Promote Pro-Environmental Behaviour: A Meta-Analysis.
Psychological risk	The potential negative impacts on users' mental well-being and emotional state when engaging with AI influencers	Nallaperuma, K., Kaluarachchi, C. D., & Nguyen, L. (2024). Navigating the nexus of Authenticity, Value And Risk: A Situational Privacy Calculus Model in exploring the use of AI Influencers.
Purchase likelihood	Likelihood of making a purchase	Gnewuch, U., Hanschmann, L., Kaiser, C., Schallner, R. (2024). Robot Shopping Assistants: How Emotional Versus Rational Robot Designs Affect Consumer Trust and Purchase Decisions.
Quality value	The perceived quality of AI-generated solutions, a component of perceived value.	Mehler, M., Ellenrieder, S., & Buxmann, P. (2024). The Influence of Effort on the Perceived Value of Generative AI: A Study of the IKEA Effect.
Relative performance information	RPI enables individuals to evaluate their performance relative to that of their peers (Hannan et al., 2013).	Smeets, M. R., & Roetzel, P. G. (2024). The Moderating Role of Gamification in Reducing Algorithm Aversion in the Adoption of AI-based Decision Support Systems
Response	Response could be Purchase Intention, Attitude, Credibility, Willingness to Purchase	Heigl, R, Weber, P, Hinz, O (2024). The Tiktok Equation: How Congruence Drives Influencer Marketing Success , a Mixed-Methods Study.
Restructured individuals' capability	Is another emerging area where GAI starts restructuring an individual's capability to function like a team.	Jiang, M, Karanasios, S, Breidbach, C (2024). Generative Ai in the Wild: An Exploratory Case Study of

		Knowledge Workers Knowledge Workers.
Social value	The perceived social status or acceptance gained from using AI-generated solutions, a component of perceived value.	Mehler, M., Ellenrieder, S., & Buxmann, P. (2024). The Influence of Effort on the Perceived Value of Generative AI: A Study of the IKEA Effect.
Social value	The benefits that users derive from the social interactions and connections facilitated by AI influencers	Nallaperuma, K., Kaluarachchi, C. D., & Nguyen, L. (2024). Navigating the nexus of Authenticity, Value And Risk: A Situational Privacy Calculus Model in exploring the use of AI Influencers.
Strategic action	Strategic goals and directions have to be translated into concrete action in order to be effective	Perrelet, S, Spizzo, M, Gertschen, M, Dibbern, J (2024). Sustainable Software Development: a View on Strategy and Practices for Organizational Benefits.
Sustainability orientation	Recognition by managers of the importance of sustainability issues facing their companies .	Perrelet, S, Spizzo, M, Gertschen, M, Dibbern, J (2024). Sustainable Software Development: a View on Strategy and Practices for Organizational Benefits.
Sustainable is practices	Environmentally friendly cooperative activities among the members of an organization to address environmental issues, to reduce environmental impact, and then to capture added value that can emerge from these activities.	Perrelet, S, Spizzo, M, Gertschen, M, Dibbern, J (2024). Sustainable Software Development: a View on Strategy and Practices for Organizational Benefits.
Sustainable is strategy	Sustainability related IS strategies at the organizational and functional levels.	Perrelet, S, Spizzo, M, Gertschen, M, Dibbern, J (2024). Sustainable Software Development: a View on Strategy and Practices for Organizational Benefits.
Sustainable software engineering practices	The art of defining and developing software products in a way so that the negative and positive impacts on sustainability that result and/or are expected to result from the software product over its whole lifecycle are continuously assessed, documented, and optimized.	Perrelet, S, Spizzo, M, Gertschen, M, Dibbern, J (2024). Sustainable Software Development: a View on Strategy and Practices for Organizational Benefits.
System-like trust	People can also place trust in a technology's reliability, functionality, and helpfulness (McKnight et al., 2011), which is referred to as system-like trust	Gnewuch, U., Hanschmann, L., Kaiser, C., Schallner, R. (2024). Robot Shopping Assistants: How Emotional Versus Rational Robot Designs Affect Consumer Trust and Purchase Decisions.
Technical competence	Individual level of technical competence	Smeets, M. R., & Roetzel, P. G. (2024). The Moderating Role of Gamification in Reducing Algorithm Aversion in the Adoption of AI-based Decision Support Systems

Trust	The degree to which a person feels that they can rely on the AI to reduce vulnerability and/or uncertainty in a given situation or instance	Ellenrieder, S., Ellenrieder, N., Hendriks, P., & Mehler, M. (2024). Pilots and Pixels: A Comparative Analysis of Machine Learning Error Effects on Aviation Decision Making.
Trust	Trust is the willingness to be vulnerable to another party's actions, expecting them to perform an important action, regardless of the ability to control that other party	Moritz, J., & Schmidt, C. (2024). Trust in algorithmic management: The role of justice and prior discrimination experience.
Trust in AI	Users' willingness to use an AI system in relevant interactions with the system (Gursoy et al., 2019).	Smeets, M. R., & Roetzel, P. G. (2024). The Moderating Role of Gamification in Reducing Algorithm Aversion in the Adoption of AI-based Decision Support Systems
Utility value	The perceived usefulness and informational benefits that users gain from interacting with AI influencers	Nallaperuma, K., Kaluarachchi, C. D., & Nguyen, L. (2024). Navigating the nexus of Authenticity, Value And Risk: A Situational Privacy Calculus Model in exploring the use of AI Influencers.
Value-for-money	The perceived financial worth of AI-generated solutions, a component of perceived value.	Mehler, M., Ellenrieder, S., & Buxmann, P. (2024). The Influence of Effort on the Perceived Value of Generative AI: A Study of the IKEA Effect.
Willingness to pay (wtp)	Measures how much individuals are willing to spend on a product or service, indicating their perceived value and interest in the offering	Mehler, M., Ellenrieder, S., & Buxmann, P. (2024). The Influence of Effort on the Perceived Value of Generative AI: A Study of the IKEA Effect.

Appendix 3 Model similarity scores

Table 15 Aggregated conceptual isomorphism score

No.	Paper	Similarity	Conformity
1	The New Marshmallow: The Effects of Screen Use on Children's the New Marshmallow: The Effects of Screen Use on Children's Ability to Delay Gratification Ability to Delay Gratification (Richardson et al., 2024)	0.427	0.162
2	The Effectiveness of Digital Interventions to Promote Pro-Environmental Behaviour: a Meta-Analysis (Ixmeier & Kranz, 2024)	0.46	0.296
3	Sustainable Software Development: a View on Strategy and Practices for Organizational Benefits (Perrelet et al., 2024)	0.465	0.214
4	Pilots and Pixels: a Comparative Analysis of Machine Learning Pilots and Pixels: a Comparative Analysis of Machine Learning Error Effects on Aviation Decision Making Error Effects on Aviation Decision Making (Ellenrieder et al., 2024)	0.5	0.205

5	Navigating the Nexus of Authenticity, Value and Risk: a Situational Privacy Calculus Model in Exploring the Use of Ai Influencers (Nallaperuma et al., 2024)	0.508	0.322
6	The Influence of Effort on the Perceived Value of Generative Ai: a Study of the Ikea Effect (Mehler et al., 2024)	0.508	0.162
7	The Future of Work Unleashed: Generative AI's Role in Shaping Knowledge Workers' Autonomous Motivation (Oesinghaus et al., 2024)	0.516	0.262
8	Is it Me, or is it You? How Perceived Humanness Influences Users' Cognitive and Affective Satisfaction with Conversational Agents that Make Errors (Hildebrandt et al., 2024)	0.516	0.175
9	Robot Shopping Assistants: How Emotional Versus Rational Robot Designs Affect Consumer Trust and Purchase Decisions (Gnewuch et al., 2024)	0.538	0.108
10	Trust in Algorithmic Management: The Role of Justice and Prior Trust in Algorithmic Management: The Role of Justice and Prior Discrimination Experience (Moritz & Schmidt, 2024)	0.552	0.286
11	Generative AI in the Wild: An Exploratory Case Study of Knowledge Workers Knowledge Workers (Jiang et al., 2024)	0.552	0.255
12	The Tiktok Equation: How Congruence Drives Influencer Marketing Success ,AI a Mixed-Methods Study (Heigl et al., 2024)	0.559	0.277
13	Preparing, Fostering, and Fallowing: Cultivating Digital Safe Spaces (Ruiz-Bravo et al., 2024)	0.559	0.191
14	Talking Through Turf Wars: How Dialogue Helps Resolve Online Co-Production Disputes (Allen & Kuduravalli, 2024)	0.664	0.213
15	The Moderating Role of Gamification in Reducing Algorithm Aversion in the Adoption of Ai-Based Decision Support Systems (Smeets & Roetzel, 2024)	0.693	0.108
16	Workaround-to-Innovation Exploring Bottom-Up Process Re-Design (Beverungen et al., 2024)	0.693	0.123
17	Delegation or Augmentation, AI Strategies for Working Effectively with Generative Conversational Artificial Intelligence (Oberhofer et al., 2024)	0.951	0.317
18	Delegation or Augmentation, AI Strategies for Working Effectively with Generative Conversational Artificial Intelligence (Oberhofer et al., 2024)	0.951	0.289

Appendix 4 Theories discussed in ECIS 2024

Table 16 Theories and their frequency

Theory	Frequency
Social Comparison Theory	6
Conceptual Development on Strategic Positioning and Relational Gains from Responsible AI	1
AFFORDANCE THEORY	1
Exploratory Theory	1
Business Model	1

BPM life cycle	1
SECI model	1
social technical environment	1
Job Demands and Resources	1
Behaviour Change Wheel	1
Persuasive Tehnology	1
Stimulus-Organism-Response Model	1
Aristotelian Ethics	1
IKEA Effect	1
Privacy Calculus theory	1
Digital Options	1
Construal level theory	1
Social exchange theory	1
The nature of managerial work	1
self-determination theory	1
S-O-R Theory	1
Error Management Theory	1
Trust Theory	1
Social Learning Theory	1
Behavioral modeling theory	1
Scale development theory	1
deterrence theory	1
protection motivation theory	1
metaphors	1
Need Satisfier Systems	1