Nicolas PRAT

Associate Professor
Department: Information Systems, Data Analytics and Operations
ESSEC Business School
3 avenue Bernard Hirsch
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Country of origin: France

RESEARCH INTERESTS

Management of Information Systems, Business intelligence, analytics, and artificial intelligence (AI),

EDUCATION

2012	Accreditation to supervise research, Paris-Dauphine, PSL University, France
1999	PhD in Information Systems, Paris-Dauphine, PSL University, France
1991	Specialized Master in Information Systems, ESSEC Business School, France
1990	MSc in Management, ESSEC Business School, France

EMPLOYMENT

Full-time academic positions

2006 - Present	Associate Professor, ESSEC Business School, France
1999 - 2006	Assistant Professor, ESSEC Business School, France

Other affiliations and appointments

2025 - 2027	Head of the Digital transformation and digital business Track, ESSEC Business School, France
2020 - 2022	Academic director / Pedagogical Head, ESSEC Business School, France
2017 - 2019	Pedagogical head of the information systems track, programme "Management & gestion des organisations" (executive education), ESSEC Business School, France
2013 - 2017	Academic director of the programme "Management of information systems" (executive education), ESSEC Business School, France
2012 - Present	Head of the Information Systems Track, ESSEC Business School, France
2007 - 2010	Head of the department of Information systems and decision sciences, ESSEC Business School, France
2005 - 2013	Professor in charge at ESSEC of the Master in Research SID (Information and Decision Systems), in conjunction with University of Panthéon-Sorbonne and CNAM, ESSEC Business School, France
1995 - 1999	Lecturer, ESSEC Business School, France

2015 - 2015	Visiting researcher, MIT Sloan School of Management, United States of America
2015 - 2015	Visiting researcher, University of Alicante, Spain
2014 - 2014	Visiting researcher, University of Alicante, Spain
2007 - 2007	Visiting researcher, MIT Sloan School of Management, United States of America
1999 - 1999	Lecturer, École Supérieure des Affaires (ESA), France

GRANTS AND HONORS

Awards and Honors

2013	Qualification to the function of full Professor in the French University system (Computer Science)

PUBLICATIONS

Journal Articles

AKOKA, J., WATTIAU, I., PRAT, N. and STOREY, V.C. (2025). Data and knowledge engineering: Insights from forty years of publication. *Data and Knowledge Engineering*, 160(102492).

KRISHNAN, R., LALOR, J.P., PRAT, N. and ABBASI, A. (2025). From Policy to Practice: Research Directions for Trustworthy and Responsible Artificial Intelligence “By Design”. *IEEE Intelligent Systems*, 40(5), pp. 45-51.

BAUDET, C., PRAT, N., BARLETTE, Y. and DUTOT, V. (2025). Disciplinary tensions: the predicted demise of information systems as a discipline in its own right? *Systèmes d'Information et Management*, Volume 30(2), pp. 15-25.

BAUDET, C., PRAT, N., BARLETTE, Y. and DUTOT, V. (2025). Tensions disciplinaires : la fin annoncée des systèmes d’information comme discipline à part entière ? *Systèmes d'Information et Management*, Volume 30(2), pp. 3-14.

SANGUPAMBA MWILU, O., PRAT, N. and WATTIAU, I. (2024). A Taxonomy Development Method to Define the Vocabulary for Rule-Based Guidance in Complex Emerging Technologies. *Business and Information Systems Engineering*, 66, pp. 161-180.

AKOKA, J., WATTIAU, I., PRAT, N. and STOREY, V.C. (2024). Unraveling the foundations and the evolution of conceptual modeling—Intellectual structure, current themes, and trajectories. *Data & Knowledge Engineering*, 154, pp. 102351.

AKOKA, J., WATTIAU, I., PRAT, N. and STOREY, V.C. (2023). Knowledge contributions in design science research: Paths of knowledge types. *Decision Support Systems*, 166, pp. 113898.

PRAT, N. (2019). Augmented analytics. *Business and Information Systems Engineering*, 61(3), pp. 375-380.

SANGUPAMBA MWILU, O., WATTIAU, I. and PRAT, N. (2016). Design Science Research Contribution to Business Intelligence in the Cloud — a Systematic Literature Review. *Future Generation Computer Systems*, 63, pp. 108-122.

PRAT, N., WATTIAU, I. and AKOKA, J. (2015). A Taxonomy of Evaluation Methods for Information Systems Artifacts. *Journal of Management Information Systems*, 32(3), pp. 229-267.

PRAT, N., AKOKA, J. and WATTIAU, I. (2012). An MDA Approach to Knowledge Engineering. *Expert Systems with Applications*, 39(12), pp. 10420-10437.

PRAT, N. (2012). Teaching Information Systems with Cases: An Exploratory Study. *Journal of Computer Information Systems*, 52(3), pp. 71-81.

PRAT, N., WATTIAU, I. and AKOKA, J. (2011). Combining Objects with Rules to Represent Aggregation Knowledge in Data Warehouse and OLAP Systems. *Data and Knowledge Engineering*, 70(8), pp. 732-752.

PRAT, N., AKOKA, J. and COMYN-WATTIAU, I. (2006). A UML-based Data Warehouse Design Method. *Decision Support Systems*, 42(3), pp. 1449-1473.

AKOKA, J. and PRAT, N. (1997). Modélisation logique des données dans les systèmes multidimensionnels d'aide à la décision: la méthode MAP. *Journal of Decision Systems*, 6(2), pp. 95-115.

Books and book editor

COMYN-WATTIAU, I., DU MOUZA, C. and PRAT, N. [Eds] (2016). *Ingénierie et management des systèmes d'information - Mélanges en l'honneur de Jacky Akoka*. Cépaduès Éditions, 349 pages.

Book chapters

PRAT, N. (2016). Modeling and Preparing Data in Self-Service Business Intelligence. In: COMYN-WATTIAU I., DU MOUZA C., PRAT N. eds. *Ingénierie et management des systèmes d'information - Mélanges en l'honneur de Jacky Akoka*. 1st ed. Cépaduès Éditions, pp. 5-18.

PRAT, N. (2014). Management des systèmes d'information. In: DUFOUR B. (ed.). *MBA. L'essentiel du management par les meilleurs professeurs*. 3 ed. Eyrolles, pp. 321 – 341.

PRAT, N. (2011). A Hierarchical Model for Knowledge Management. In: SCHWARTZ D. (ed.). *Encyclopedia of Knowledge Management*. 2 ed. Idea Group Reference, pp. 376-388.

PRAT, N. (2006). A Hierarchical Model for Knowledge Management. In: SCHWARTZ D. (ed.). *Encyclopedia of Knowledge Management*. 1st ed. Idea Group Reference, pp. 211-220.

ZAMFIROIU, M. and PRAT, N. (2001). Traçabilité du processus de conception des systèmes d'information. In: CAUVET C., ROSENTHAL-SABROUX C. eds. *Ingéniérie des systèmes d'information*. 1st ed. Hermès Sciences, Lavoisier, pp. 245-276.

PRAT, N. (2000). STEP PC: A Generic Tool for Design Knowledge Capture and Reuse. In: ROY R. (ed.). *Industrial Knowledge Management: A Micro-level Approach*. 1st ed. Springer, pp. 317-334.

Conference proceedings

PRAT, N., LALOR, J.P. and ABBASI, A. (2025). GALEA – Leveraging Generative Agents in Artifact Evaluation. In: *Local Solutions for Global Challenges (DESRIST 2025)*. Cham: Springer Nature Switzerland, pp. 83-98.

PRAT, N. and OLOGEANU-TADDEI, R. (2024). An Ontology of Environmental Sustainability for Design Science Research Artifacts. In: *Proceedings of SIGGreen Pre-ICIS Workshop, 45th International Conference on Information Systems (ICIS)*. Bangkok: Association for Information Systems (AIS).

AKOKA, J., WATTIAU, I., PRAT, N. and STOREY, V.C. (2023). The journey of conceptual modeling: Paths from the past to present with trajectories for the future. In: *CEUR Workshop Proceedings (CEUR-WS.org)*. CEUR-WS.org, pp. 1-21.

PRAT, N. (2023). The Impact of Generative AI on Business Intelligence. In: *International Conference on Information Systems (ICIS 2023) Rising like a Phoenix: Emerging from the Pandemic and Reshaping Human Endeavors with Digital Technologies*. Hyderabad: Association for Information Systems (AIS).

PRAT, N., AKOKA, J., WATTIAU, I. and STOREY, V.C. (2022). A Granular View of Knowledge Development in Design Science Research. In: *The Transdisciplinary Reach of Design Science Research - 17th International Conference on Design Science Research in Information Systems and Technology (DESRIST 2022)*. Springer, pp. 363-375.

PRAT, N. (2021). What Are They Talking about? Relation Extraction from News to Identify Research Directions in Emerging Technologies. In: *54th Hawaii International Conference on System Sciences (HICSS-54)*. Online: IEEE Computer Society, pp. 5449-5458.

AKOKA, J., WATTIAU, I., DU MOUZA, C. and PRAT, N. (2021). Mapping Multidimensional Schemas to Property Graph Models. In: *Advances in Conceptual Modeling - ER 2021 Workshop Proceedings - Conceptual Modeling for NoSQL Data Stores (CoMoNoS)*. St John's: Springer, pp. 3-14.

AKOKA, J., COMYN-WATTIAU, I., DU MOUZA, C. and PRAT, N. (2019). Design science research for the humanities – The case of prosopography. In: *14th International Conference on Design Science Research in Information Systems and Technology (DESRIST 2019)*. Worcester, MA: Springer International Publishing, pp. 239-253.

HEVNER, A.R., PRAT, N., COMYN-WATTIAU, I. and AKOKA, J. (2018). A Pragmatic Approach for Identifying and Managing Design Science Research Goals and Evaluation Criteria. In: *: AIS SIGPRAG 6th Pre-ICIS Workshop "Practice-based Design and Innovation of Digital Artifacts"*. San Francisco: Association for Information Systems (AIS), pp. 1-15.

PRAT, N. (2018). Blockchain Analytics: A Descriptive Review. In: *Proceedings of the AIM Pre-ICIS 2018 "Convergence des TI"*. San Francisco: Association Information et Management (AIM), pp. 1-10.

AKOKA, J., COMYN-WATTIAU, I., PRAT, N. and STOREY, V.C. (2017). Evaluating Knowledge Types in Design Science Research: An Integrated Framework. In: *Designing the Digital Transformation. 12th International Conference on Design Science Research in Information Systems and Technology (DESRIST 2017) Proceedings*. Karlsruhe: Springer International Publishing, pp. 201-217.

AKOKA, J., COMYN-WATTIAU, I. and PRAT, N. (2017). A four V's design approach of NoSQL graph databases. In: *Advances in Conceptual Modeling - Proceedings of ER 2017 Workshops, 6th International Workshop on Modeling and Management of Big Data (MoBiD 2017)*. Valencia: Springer, pp. 58-68.

AKOKA, J., COMYN-WATTIAU, I. and PRAT, N. (2016). The Structure of DSR Knowledge as Reflected by DESRIST: A Citation Analysis. In: *11th International Conference on Design Science Research in Information Systems & Technology (DESRIST 2016)*. St. John: Springer, pp. 177-185.

SANGUPAMBA MWILU, O., PRAT, N. and COMYN-WATTIAU, I. (2015). Taxonomy Development for Complex Emerging Technologies - The Case of Business Intelligence and Analytics on the Cloud. In: *19th Pacific Asia Conference on Information Systems (PACIS 2015) Proceedings*. Singapore: Association for Information Systems (AIS), pp. 1-16.

PRAT, N., COMYN-WATTIAU, I. and AKOKA, J. (2014). Artifact evaluation in information systems design-science research - a holistic view. In: *18th Pacific Asia Conference on Information Systems (PACIS 2014)*. Chengdu: Southwestern University of Finance and Economics (SWUFE), pp. 1-17.

SANGUPAMBA MWILU, O., PRAT, N. and COMYN-WATTIAU, I. (2014). Business Intelligence and Big Data in the Cloud: Opportunities for Design-Science Researchers. In: *Advances in Conceptual Modeling - Proceedings of ER 2014 Workshops, 2nd International Workshop on Modeling and Management of Big Data (MoBiD 2014)*. Atlanta: Springer, pp. 75-84.

PRAT, N. (2013). Goal Formalisation and Classification for Requirements Engineering, Fifteen Years Later. In: *Proceedings of 7th IEEE International Conference on Research Challenges in Information Science (RCIS)*. Paris: IEEE Xplore, pp. 1-12.

PRAT, N., MEGDICHE, I. and AKOKA, J. (2012). Multidimensional Models Meet the Semantic Web: Defining and Reasoning on OWL-DL Ontologies for OLAP. In: *15th International Workshop on Data Warehousing and OLAP (DOLAP 2012)*. Maui, Hawaii: Association for Computing Machinery (ACM), pp. 17-24.

PRAT, N., AKOKA, J. and COMYN-WATTIAU, I. (2012). Transforming Multidimensional Models into OWL-DL Ontologies. In: *6th International Conference on Research Challenges in Information Science (RCIS 2012)*. Valencia: Institute of Electrical and Electronics Engineers (IEEE), pp. 1-12.

PRAT, N., AKOKA, J. and COMYN-WATTIAU, I. (2011). Mapping CommonKADS Knowledge Models into PRR. In: *Proceedings of 23rd International Conference on Software Engineering and Knowledge Engineering (SEKE 2011)*. Miami: Knowledge Systems Institute Graduate School, pp. 143-148.

PRAT, N. (2010). Evaluating the impact of different case-based teaching approaches on students' implication and learning - an empirical study in an IS/IT management course. In: *15ème Colloque de l'AIM (AIM 2010)*. La Rochelle: Association Information et Management (AIM), pp. 1-11.

PRAT, N., COMYN-WATTIAU, I. and AKOKA, J. (2010). Representation of Aggregation Knowledge in OLAP Systems. In: *18th European Conference on Information Systems (ECIS 2010)*. Pretoria: University of Pretoria, pp. 1-12.

PRAT, N. and MADNICK, S. (2008). Measuring Data Believability: A Provenance Approach. In: *Proceedings of the 41st Hawaii International Conference on System Sciences (HICSS-41)*. Waikoloa: Institute of Electrical and Electronics Engineers (IEEE), pp. 1-10.

PRAT, N. and MADNICK, S. (2007). Evaluating and Aggregating Data Believability across Quality Sub-dimensions and Data Lineage. In: *Proceedings of the 17th International Workshop on Information Technologies and Systems (WITS 2007)*. Montreal: Financial Management Association (FMA), pp. 170-176.

THIELE, O., KNAPP, H., SCHADER, M. and PRAT, N. (2007). MOBILEAUDIT - A Tool for Contextual Knowledge Management. In: *Proceedings of the Winsys 2007 Conference: International Conference on Wireless Information Networks and Systems*. Barcelona: Institute for Systems and Technologies of Information, Control and Communication (INSTICC), pp. 232-237.

THIELE, O., KNAPP, H., SCHADER, M. and PRAT, N. (2006). A Context-aware Architecture for Mobile Knowledge Management. In: *Proceedings of the International Conference on Wireless Information Networks and Systems (WINSYS 2006)*. Setúbal: Institute for Systems and Technologies of Information, Control and Communication (INSTICC).

PRAT, N. (2006). A Goal-based Approach to Semantic Web Services. In: *Proceedings of the 5th French Affiliated AIM Pre-ICIS Workshop: A Management Perspective on Web Services*. Milwaukee: UWM (University of Wisconsin at Milwaukee), pp. 26-32.

RATSIMANOHATRA, A., PRAT, N. and SCHADER, M. (2006). A Topic Maps-based Architecture for Mobile knowledge Management. In: *Proceedings of the IADIS International Conference WWW/Internet 2006*. Murcia: IADIS, pp. 266-271.

PRAT, N. and ZACKLAD, M. (2006). Analyse des dépendances entre fragments documentaires pour le management des communautés d'action médiatisées. In: *11ème Colloque de l'AIM (AIM 2006)*. Luxembourg: Association Information et Management (AIM), pp. 1-17.

PRAT, N. and ZACKLAD, M. (2006). Analysing Dependencies between Documentary Fragments for the Management of Mediated Communities of Action. In: *Proceedings of the 11th International Conference of the Association Information and Management (AIM): Information Systems and Collaboration: State of the Art and Perspectives*. GI-Edition, pp. 386-401.

DEMIGHA, S. and PRAT, N. (2004). A Cased-based Training System in Radiology-senology. In: *International Conference on Information and Communication Technologies: From Theory to Applications. ICTTA'04 Proceedings*. Damascus: Institute of Electrical and Electronics Engineers (IEEE), pp. 1-6.

SI-SAID CHERFI, S. and PRAT, N. (2003). Multidimensional Schema Quality: Assessing and Balancing Analyzability and Simplicity. In: *International Workshop on Conceptual Modeling Quality (IWCMQ 2003) in Conjunction with the 22nd International Conference on Conceptual Modeling (ER 2003): Conceptual Modeling for Novel Application Domains*. Chicago: Springer, pp. 140-151.

PRAT, N. and SI-SAID CHERFI, S. (2003). Multidimensional Schemas Quality Assessment. In: *Information Systems for a Connected Society (CAISE'03 Workshops)*. Klagenfurt/Velden: University of Maribor Press (Slovenia), pp. 341-352.

RAMSAMY-PRAT, P. and PRAT, N. (2002). Contribution of the Theories of Individual Learning to an Integrated Knowledge Management Framework: Application to IT-supported Knowledge Management. In: *3rd European Conference on Knowledge Management (ECKM 2002)*. Dublin: MCIL, pp. 563-574.

PRAT, N. and AKOKA, J. (2002). From UML to ROLAP Multidimensional Databases Using a Pivot Model. In: *18èmes Journées Bases de Données Avancées (BDA 2002*. Evry: INT, pp. 171-195.

PRAT, N. (2002). Management des connaissances : un cadre intégrateur pour combiner les approches systèmes d'information, management et intelligence artificielle. In: *7ème Colloque de l'AIM (AIM 2002)*. Hammamet: Association Tunisienne des Sciences de Gestion (ATSG), pp. 1-10.

PRAT, N. (2001). Automating Knowledge Indexing and Retrieval in Soft Domains. In: *Second European Conference on Knowledge Management (ECKM 2001) Proceedings*. MCIL, pp. 475-486.

AKOKA, J., COMYN-WATTIAU, I. and PRAT, N. (2001). Dimension Hierarchies Design from UML Generalizations and Aggregations. In: *20th International Conference on Conceptual Modeling (ER 2001): Conceptual Modeling-ER 2001*. Berlin: Springer, pp. 442-455.

PRAT, N. (2000). Applying Case-based Reasoning in a Design Environment: Issues and Lessons Learned. In: *Machine Learning in Design Workshop (MLinD 2000), 6th International Conference on Artificial Intelligence in Design (AID 2000)*. Worcester Polytechnic Institute, pp. 33-41.

PRAT, N. (1999). Aide au processus de BPR : Une approche fondée sur le raisonnement par cas. In: *4ème Colloque de l'AIM (AIM 1999)*. Cergy Pontoise: ESSEC Business School, pp. 211-227.

PRAT, N. (1997). Goal formalisation and classification for requirements engineering. In: *Proc. of the 3rd International Workshop on Requirements Engineering : Foundations of Software Quality (REFSQ'97)*. Barcelona: Presses universitaires Namur.

AKOKA, J., COMYN-WATTIAU, I. and PRAT, N. (1993). INFAUDITOR : An Expert System for Information Systems Auditing. In: *Artificial Intelligence Technology Applications and Management (ICC 1993)*. McGraw-Hill, pp. 402-409.

Conferences

PRAT, N., LALOR, J. and ABBASI, A. (2025). GALEA – Leveraging Generative Agents in Artifact Evaluation. In: 20th International Conference on Design Science Research in Information Systems and Technology (DESRIST) 2025. Montego Bay.

AKOKA, J., WATTIAU, I., PRAT, N. and STOREY, V.C. (2024). La modélisation conceptuelle - Passé, présent et futur. In: 42ème Edition du Congrès INFORSID 2024. Nancy: INFormatique des ORganisations et Systèmes d'Information et de Décision. Nancy.

Working Papers

PRAT, N., COMYN-WATTIAU, I. and AKOKA, J. (2009). *Combining Objects with Rules to Represent Aggregation Knowledge in Data Warehouse and OLAP Systems*. DR-09014, ESSEC Business School.

AKOKA, J., COMYN-WATTIAU, I. and PRAT, N. (2001). *From UML to ROLAP Multidimensional Databases Using a Pivot Model*. DR-01021, ESSEC Business School.

PRAT, N. (1996). *Using machine learning techniques to improve information systems development methods*.

Press

PRAT, N. (2024). Generative BI – the new revolution in business intelligence. *ESSEC Knowledge*.

PRAT, N. (2018). Fonctionnement, transactions, enjeux: tout ce qu'il faut savoir sur la blockchain, vidéo ESSEC-Challenges. *Challenges*.

PRAT, N. (2018). Intelligence artificielle : 3 raisons de vous y intéresser. *Courrier Cadres*.

PRAT, N. (2018). Aprovechar la revolución de la IA en la analítica de datos. *Mundo Empresarial*.

OTHER RESEARCH ACTIVITIES

Editorial Board Membership

Since 2022	Systèmes d'Information et Management
Since 2013	Journal of Database Management

Organisation of a conference

2008	Local arrangements chair, 18th Workshop on Information Technologies and Systems (WITS 2008), Paris, France

PhD Supervision

2005	S. Demigha (Université Paris 1 Panthéon-Sorbonne), Thesis co-director

Other research activities

2005	Member of Program Committees - International Workshop on Quality of Information Systems (QoIS2005) in conjunction with the 24th International Conference on Conceptual Modeling (ER2005), Klagenfurt,, Austria
2004	3rd Colloquium Pre-ICIS of the AIM (Association Information et Management), Washington D.C, United States of America
2004	Member of Program Committees, 9th colloquium of the AIM, INT, Evry,, France
2003	Member of the Program Committee: Decision Systems Engineering Workshop (DSE'03) in conjunction with the 15th Conference on Advanced Information Systems

Engineering (CAiSE'03), Klagenfurt/Velden, Austria

2002 Member of the Program Committee, 1st Colloquium Pre-ICIS de l'AIM, Barcelone, Spain

PROFESSIONAL ACTIVITIES

Consulting

2003 Expert for the Réseau National de recherche et d'innovation en Technologies Logicielles (RNTL), created by the Ministères de l'Industrie et de la Recherche.