

Isabelle WATTIAU

Professor

Department: Information Systems, Decision

Sciences and Statistics

ESSEC Business School

3 avenue Bernard Hirsch

95021 Cergy-Pontoise

France

Email: wattiau@essec.edu

Phone number: +33 (0)1 34 43 30 76

Country of origin: France

RESEARCH INTERESTS

Information Systems, Decision Support Systems, Other research theme

EDUCATION

- | | |
|------|--|
| 1997 | HDR, Université de Versailles Saint-Quentin-en-Yvelines, France |
| 1990 | Doctorat in Computer Systems, Sorbonne Université, France |
| 1985 | Engineering degree, École Nationale Supérieure d'Informatique pour l'Industrie et l'Entreprise, France |

EMPLOYMENT

Full-time academic positions

- | | |
|----------------|--|
| 1998 - Present | Professor, ESSEC Business School, France |
| 1994 - 1998 | Associate Professor, ESSEC Business School, France |
| 1988 - 1994 | Assistant Professor, ESSEC Business School, France |

Other affiliations and appointments

- | | |
|-------------|---|
| 2019 - 2024 | Chaired Professor of the Information Strategy & Governance Chair, ESSEC Business School, France |
| 2008 - 2024 | Head program MS MSIR, ESSEC Business School, France |

GRANTS AND HONORS

Awards and Honors

- | | |
|------|---|
| 2016 | Best Paper Award, 18 International Conference on Information Systems (ICEIS), pour l'article : Structuring Guidelines for Web Application Designers - A Meta-Model, Italy |
| 2015 | Chevalier dans l'ordre des palmes académiques, France |
| 2010 | Best paper award, Second International Conference on Advances in Databases, Knowledge, and Data Applications, International Academy, Research, and Industry Association, France |

Journal Articles

- 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.
- SANGUPAMBA MWILU, O., PRAT, N. and WATTIAU, I. (2023). A Taxonomy Development Method to Define the Vocabulary for Rule-Based Guidance in Complex Emerging Technologies. *Business and Information Systems Engineering*, In press.
- AKOKA, J., WATTIAU, I., LAMASSE, S. and DU MOUZA, C. (2021). Conceptual modeling of prosopographic databases integrating quality dimensions. *Journal of Data Mining & Digital Humanities*, Special Issue on Data Science and Digital Humanities @ EGC 2018.
- WATTIAU, I. (2020). How Covid-19 Positively Impacts Information Governance Democratization. *Strategies in Accounting and Management*, 1(4), pp. 1-2.
- AKOKA, J., WATTIAU, I. and DU MOUZA, C. (2020). Conception de bases de données prosopographiques en histoire - un état de l'art. *Revue Ouverte d'Ingénierie des Systèmes d'Information*, 1(3).
- WATTIAU, I. (2020). Comment l'épidémie de Covid-19 permet de mieux expliquer l'importance de la définition des méta-données ? *Question(s) de Management*.
- SOUAG, A., MASO, R., SALINESI, C. and WATTIAU, I. (2018). Using the AMAN-DA method to generate security requirements: A case study in the maritime domain. *Requirements Engineering*, 23, pp. 557-580.
- AKOKA, J. and WATTIAU, I. (2018). Roundtrip engineering of NoSQL databases. *Enterprise Modelling and Information Systems Architectures - International Journal on Conceptual Modelling*, 13(2018), pp. 281-292.
- BEN FREDJ , F., LAMMARI, N. and WATTIAU, I. (2018). Anonymisation de données par généralisation - méthode avec guidage. *Ingenierie des Systemes D'Information*, 23(1), pp. 63-87.
- AKOKA, J., COMYN-WATTIAU, I. and LAOUFI, N. (2017). Research on Big Data – a Systematic Mapping Study. *Computer Standards & Interfaces*, 54, pp. 105-115.
- 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.
- SOUAG, A., MAZO, R., SALINESI, C. and WATTIAU, I. (2016). Reusable Knowledge in Security Requirements Engineering: A Systematic Mapping Study. *Requirements Engineering*, 21(2), pp. 251-283.
- 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.
- AKOKA, J., WATTIAU, I., DU MOUZA, C., FADILI, H., LAMMARI, N. and METAIS, E. (2014). A Semantic Approach for Semi-Automatic Detection of Sensitive Data. *Information Resources Management Journal*, 27(4), pp. 23-44.
- AKOKA, J. and WATTIAU, I. (2014). Business Intelligence. Un état de l'art. *Ingenierie des Systemes D'Information*, 19(5), pp. 943.
- WATTIAU, I., SI-SAID CHERFI, S. and AYAD, S. (2013). Improving Business Process Model Quality Using Domain Ontologies. *Journal on Data Semantics*, 2, pp. 75-88.

- PRAT, N., AKOKA, J. and WATTIAU, I. (2012). An MDA Approach to Knowledge Engineering. *Expert Systems with Applications*, 39(12), pp. 10420-10437.
- BERTI-ÉQUILLE, L., WATTIAU, I., COSQUER, M., KEDAD, Z., NUGIER, S. and PERALTA, V. (2011). Assessment and Analysis of Information Quality: A Multidimensional Model and Case Studies. *International Journal of Information Quality*, 2(4), pp. 300-323.
- 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.
- WATTIAU, I., AKOKA, J. and BERTI, L. (2010). La qualité des systèmes d'information - vers une vision plus intégrée. *Ingenierie des Systemes D'Information*, 15(6), pp. 9-32.
- AKOKA, J., COMYN-WATTIAU, I. and SI-SAID CHERFI, S. (2009). Etude comparée informaticiens vs. utilisateurs. *Ingenierie des Systemes D'Information*, 14(4), pp. 33-54.
- AKOKA, J. and COMYN-WATTIAU, I. (2009). Vers l'ingénierie des évolutions. *Ingenierie des Systemes D'Information*, 14(6), pp. 9-17.
- WATTIAU, I. and AKOKA, J. (2009). Gérer et reconfigurer les processus. *Economie et Management*, 133.
- LAMMARI, N., COMYN-WATTIAU, I. and AKOKA, J. (2007). Extracting Generalization Hierarchies from Relational Databases - A Reverse Engineering Approach. *Data and Knowledge Engineering*, pp. 568-589.
- PRAT, N., AKOKA, J. and COMYN-WATTIAU, I. (2006). A UML-based Data Warehouse Design Method. *Decision Support Systems*, 42(3), pp. 1449-1473.
- LAMMARI, N., AKOKA, J. and COMYN-WATTIAU, I. (2004). An Ontology-based Approach for Database Evolution. *Gesellschaft für Informatik e.V.* pp. 31-33.
- AKOKA, J. and COMYN-WATTIAU, I. (2001). La rétro-conception des bases de données et des systèmes de fichiers. Un état de l'art. *Ingenierie des Systemes D'Information*, pp. 9-59.
- COMYN-WATTIAU, I. and AKOKA, J. (1999). Relational Database Reverse Engineering. *Ingenierie des Systemes D'Information*, pp. 345-378.
- AKOKA, J., BRIOLAT, D. and COMYN-WATTIAU, I. (1998). La sécurité des réseaux : une approche de détection de malveillances. *Systemes d'Information et Management*, pp. 23-42.
- AKOKA, J. and COMYN-WATTIAU, I. (1997). An Expert System for Financial and Accounting Information System Auditing. *Computer Audit Update*, pp. 8-19.
- COMYN-WATTIAU, I. and AKOKA, J. (1997). Expert System for Computer and Management Information Systems Auditing. *Computer Audit Update*, pp. 17-27.
- METAIS, E., KEDAD, Z., COMYN-WATTIAU, I. and BOUZEGHOUB, M. (1997). Using Linguistic Knowledge in View Integration : Toward a Third Generation of Tools. *Data and Knowledge Engineering*, pp. 59-78.
- AKOKA, J. and COMYN-WATTIAU, I. (1996). A Knowledge-based System for Auditing Computer and Management Information Systems. *Expert Systems with Applications*, pp. 361-375.
- AKOKA, J. and COMYN-WATTIAU, I. (1996). Entity-relationship and Object-oriented Model Automatic Clustering. *Data and Knowledge Engineering*, pp. 87-117.
- COMYN-WATTIAU, I. and AKOKA, J. (1996). Logistics Information System Auditing Using Expert System Technology. *Expert Systems with Applications*, pp. 463-473.

AKOKA, J., BRIOLAT, D. and COMYN-WATTIAU, I. (1996). Un modèle économétrique. *Systèmes d'Information et Management*, pp. 5-28.

COMYN-WATTIAU, I. and AKOKA, J. (1994). Classification automatique de schémas conceptuels : une approche unifiée. *Ingenierie des Systemes D'Information*, pp. 437-475.

AKOKA, J. and COMYN-WATTIAU, I. (1993). PTILOT : un système expert de prévision du taux d'intérêt à long terme. *Revue Sciences de Gestion (Iseor)*, pp. 109-133.

Books and book editor

AKOKA, J., LIDDLE, S.W., SONG, I., BERLOLOTTO, M. and COMYN-WATTIAU, I. (2005). *Perspectives in Conceptual Modeling*. Springer, 476 pages.

COMYN-WATTIAU, I., AKOKA, J. and BRIOLAT., D. (2004). *Management avec Excel en pratique*. Vuibert, 252 pages.

COMYN-WATTIAU, I. and AKOKA, J. (2003). *Les bases de données*. PUF, 128 pages.

AKOKA, J. and COMYN-WATTIAU, I. (2002). *L'informatique*. PUF, 128 pages.

AKOKA, J. and COMYN-WATTIAU, I. (2001). *Conception des Bases de Données Relationnelles*. Vuibert, 269 pages.

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.

AKOKA, J. and COMYN-WATTIAU, I. [Eds] (2006). *Encyclopédie de l'informatique et des systèmes d'information*. Vuibert, 2000 pages.

Book chapters

AKOKA, J., WATTIAU, I. and STOREY, V.C. (2023). Design Science Research: Progression, Schools of Thought and Research Themes. In: Aurna Gerber, Richard Baskerville eds. *Design Science Research for a New Society: Society 5.0*. 1 ed. Cham: Springer Nature Switzerland, pp. 235-249.

KOUADRI, W.M., AKOKA, J., WATTIAU, I. and DU MOUZA, C. (2022). Uncertainty Detection in Historical Databases. In: Paolo Rosso, Valerio Basile, Raquel Martínez, Elisabeth Métais, Farid Meziane eds. *Natural Language Processing and Information Systems*. 1 ed. Springer International Publishing, pp. 73-85.

AKOKA, J. and COMYN-WATTIAU, I. (2017). A Method for Emerging Technology Evaluation. Application to Blockchain and Smart Data Discovery. In: *Conceptual Modeling Perspectives*. 1st ed. Springer, pp. 247-258.

WATTIAU, I., DO TUZN, A. and SI-SAID CHERFI, S. (2017). Guidelines for Web Application Designers - A meta-model, a grammar, and a tool. In: S. Hammoudi, L. Maciaszek, M. Missikoff, O. Camp, J. Cordeiro (Eds.) eds. *Enterprise Information Systems*. 1st ed. Springer, pp. 242-260.

WATTIAU, I., BENFREDJ, F. and LAMMARI, N. (2016). L'anonymisation des données par généralisation - un arbre de décision. In: Isabelle Comyn-Wattiau, Cédric du Mouza, Nicolas Prat eds. *Ingénierie et management des systèmes d'information*. 1st ed. Cépaduès Éditions, pp. 159_171.

AKOKA, J. and COMYN-WATTIAU, I. (2014). Les systèmes d'information comptables Modélisation et évaluation. In: *Comptabilité, Finance et Politique. De la pratique à la théorie : l'art de la conceptualisation*. 1st ed. Ordre des Experts-Comptables, pp. 297-310.

WATTIAU, I., SI-SAID CHERFI, S. and AKOKA, J. (2012). Qualité des modèles de données. In: Laure Berti-Equille (ed.). *La qualité et la gouvernance des données au service de la performance des entreprises*. 1st ed. Hermès Sciences, Lavoisier, pp. 79-118.

AKOKA, J. and COMYN-WATTIAU, I. (2006). Audit des systèmes d'information. In: *Encyclopédie de l'informatique et des systèmes d'information*. 1st ed. Vuibert, pp. 1534-1545.

COMYN-WATTIAU, I. and AKOKA, J. (2006). Conception et mise en oeuvre des bases de données. In: *Encyclopédie de l'informatique et des systèmes d'information*. 1st ed. Vuibert, pp. 500-512.

LAMMARI, N., COMYN-WATTIAU, I. and AKOKA, J. (2002). An Extensible Framework for Web Sites Integration. In: *Engineering Information Systems in The Internet Context*. 1st ed. Kluwer Academic Publishers, pp. 303-332.

AKOKA, J. and COMYN-WATTIAU, I. (2000). Auditing Computer and Management Information Systems. In: *Encyclopedia of Library and Information Science*. 1st ed. Dekker M., Inc. pp. 25-45.

COMYN-WATTIAU, I. and BOUZEGHOUB, M. (1991). View Integration by Semantic Unification and Transformation of Data Structures. In: *Entity-Relationship Approach : The Core of Conceptual Modelling*. 1st ed. Elsevier, pp. 381-398.

Guest editor of a journal special issue

WATTIAU, I., SONG, I.Y., TANAKA, K., SAEKI, M. and YAMAMOTO, S. (2018). Guest editorial – Special issue on conceptual modeling — 35th International Conference on Conceptual Modeling (ER2016). *Data & Knowledge Engineering*, 117, pp. 336-338.

Conference proceedings editor

AKOKA, J., BRIOLAT, D. and COMYN-WATTIAU, I. (1999). Actes du 4ème colloque de l'AIM. Association for Information Management (AIM), France.

AKOKA, J., BOUZEGHOB, M., COMYN-WATTIAU, I. and METAIS, E. (1999). Lecture Notes in Computer Science. Conceptual Modeling - ER'99. 8th International Conference on Conceptual Modeling. Springer, France.

Conference proceedings

AKOKA, J., WATTIAU, I. and STOREY, V.C. (2023). Design Science Research: Progression, Schools of Thought and Research Themes. In: *18th International Conference on Design Science Research in Information Systems and Technology (DESRIST 2023)*. Pretoria: University of Pretoria.

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.

AKOKA, J. and WATTIAU, I. (2022). Evaluation de la valeur des données - modèle et méthode. In: *40ème Conférence INFORSID*. INFORSID.

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.

MAMMAR KOUADRI, W., AKOKA, J., WATTIAU, I. and DU MOUZA, C. (2022). Uncertainty Detection in Historical Databases. In: *Natural Language Processing and Information Systems: 27th International Conference on Applications of Natural Language to Information Systems, NLDB 2022, Valencia, Spain, June 15–17, 2022, Proceedings*. Springer, pp. 73-85.

- 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.
- AKOKA, J. and WATTIAU, I. (2019). Evaluation of Big Data Governance - Combining a multi-criteria and systems theory. In: *IEEE Congress on Services*. Institute of Electrical and Electronics Engineers (IEEE).
- 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.
- WATTIAU, I., AKOKA, J., LAMASSE, S. and DU MOUZA, C. (2018). Les bases de données prosopographiques - un état de l'art. In: *Atelier Systèmes d'Information et Humanités Numériques (SIHN) en lien avec INFORSID*. INFORSID.
- 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.
- COMYN-WATTIAU, I., DO TUZN, A. and CHEF, S. (2016). Structuring Guidelines for Meta-Model. In: *18th International Conference on Enterprise Information Systems (ICEIS)*. Institute for Systems and Technologies of Information, Control and Communication (INSTICC).
- 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.
- AKOKA, J., COMYN-WATTIAU, I. and LAOUFI, N. (2015). Research on Big Data - Characterizing the Field and its Dimensions. In: *34th International Conference on Conceptual Modeling*. Stockholm University.
- 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., 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.
- WATTIAU, I., VASQUEZ, M., LAMMARI, N. and AKOKA, J. (2012). De l'analyse des risques à l'expression des exigences de sécurité. In: *30ème conférence INFORSID (INFormatique des ORganisations et Systèmes d'Information et de Décision)*. INFORSID.
- 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.
- MEHMOOD, K., SI-SAID CHERFI, S., COMYN-WATTIAU, I. and AKOKA, J. (2011). A Pattern-oriented Methodology for Conceptual Modeling Evaluation and Improvement. In: *Proceedings of the 5th International Conference on Research Challenges in Information Science (RCIS)*. Institute of Electrical and Electronics Engineers (IEEE).
- SI-SAID CHERFI, S., AKOKA, J. and COMYN-WATTIAU, I. (2011). Federating Information System Quality Frameworks Using a Common Ontology. In: *Proceedings of the 16th International Conference on Information Quality*. School of Computer and Information Science.
- WATTIAU, I., LAMMARI, N., BUCUMI, J.S. and AKOKA, J. (2011). A conceptual meta-model for secured information systems. In: *SESS '11: Proceedings of the 7th International Workshop on Software Engineering for Secure Systems*. Association for Computing Machinery (ACM), pp. 22-28.
- 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.
- WATTIAU, I., MEHMOOD, K. and SI-SAID CHERFI, S. (2010). CM-Quality: A Pattern-Based Method and Tool for Conceptual Modeling Evaluation and Improvement. In: *Advances in Databases and Information Systems - 14th East European Conference, ADBIS 2010, Novi Sad, Serbia, September 20-24, 2010. Proceedings*. Springer, pp. 406-420.
- WATTIAU, I., DU MOUZA, C., METAIS, E., LAMMARI, N., AKOKA, J., AUBONNET, T. ... SI-SAID CHERFI, S. (2010). Towards an Automatic Detection of Sensitive Information in a Database. In: *The Second International Conference on Advances in Databases, Knowledge, and Data Applications, DBKDA 2010*. IEEE Computer Society.
- WATTIAU, I. and AKOKA, J. (2010). A Framework for Auditing Web Based Information Systems. In: *18th European Conference on Information Systems (ECIS 2010)*. Association for Information Systems (AIS).
- WATTIAU, I., LAMMARI, N., BUCUMI, J.S. and AKOKA, J. (2010). Un modèle CIM pour les systèmes d'information sécurisés. In: *15th IBIMA Conference*. IBIMA Publishing Academic Publisher.
- MEHMOOD, K., SI-SAID CHERFI, S. and COMYN-WATTIAU, I. (2009). Data Quality Through Conceptual Model Quality - Reconciling Researchers and Practitioners Through A Customizable Quality Model. In: *Proceedings of the 14th International Conference on Information Quality*. Hasso Plattner Institute.

- MEHMOOD, K., SI-SAID CHERFI, S. and COMYN-WATTIAU, I. (2009). Data Quality Through Model Quality: A Quality Model for Measuring and Improving the Understandability of Conceptual Models. In: *CIKM2009 - Workshop Proceedings*. Association for Computing Machinery (ACM).
- AKOKA, J. and COMYN-WATTIAU, I. (2009). Mobilité et bureaux virtuels - Un modèle d'adoption. In: *Pratiques des SI au service des entreprises - Réalités et perspectives*. Reims Management School.
- COMYN-WATTIAU, I., PERALTA, V., GOASDOUE-THION, V., KEDAD, Z., BERTI-EQUILLE, Z. and NUGIER, S. (2009). Multidimensional Management and Analysis of Quality Measures for CRM Applications in an Electricity Company. In: *Proceedings of the 14th International Conference on Information Quality*. Hasso Plattner Institute.
- COMYN-WATTIAU, I. and THALHEIM, B. (2009). Preface to QoIS 2009. In: *Advances in Conceptual Modeling-challenging Perspectives*. Springer, pp. 200-201.
- KERSULEC, G., SI-SAID CHERFI, S., COMYN-WATTIAU, I. and AKOKA, J. (2009). Un environnement pour l'évaluation et l'amélioration de la qualité des modèles de systèmes d'information. In: *Actes du XXVIIe Congrès INFORSID*. IRIT Press, pp. 329-344.
- AKOKA, J., COMYN-WATTIAU, I. and SI-SAID CHERFI, S. (2008). Quality of Conceptual Schemas: An Experimental Comparison. In: *Proceedings of the IEEE International Conference on Research Challenges in Information Science*. Institute of Electrical and Electronics Engineers (IEEE), pp. 197-208.
- SI-SAID CHERFI, S., COMYN-WATTIAU, I. and AKOKA, J. (2008). Quality Patterns for Conceptual Modelling. In: *Conceptual Modeling - ER 2008*. Springer, pp. 142-153.
- AKOKA, J., BERTI, L., BOUCELMA, O., BOUZGHOUB, M., COMYN-WATTIAU, I. and COSQUER, M. (2007). A Framework for Quality Evaluation in Data Integration Systems. In: *9th International Conference on Enterprise Information Systems Proceedings (ICEIS 2007)²*. Institute for Systems and Technologies of Information, Control and Communication (INSTICC), pp. 170-175.
- AKOKA, J. and COMYN-WATTIAU, I. (2007). Du logiciel libre au logiciel de communauté - Un modèle de prédiction d'adoption dans le monde de l'éducation. In: *Actes du 12ème congrès de l'AIM - Logiciels libres : défis et opportunités*. Université de Lausanne.
- SI-SAID, S., AKOKA, J. and COMYN-WATTIAU, I. (2007). Perceived vs. Measured Quality of Conceptual Schemas: An Experimental Comparison. In: *Proceedings of the 26th International Conference on Conceptual Modeling (ER2007): Tutorials, Posters, Panels and Industrial Contributions at the 26th International Conference on Conceptual Modeling*. CRPIT, pp. 185-190.
- AKOKA, J. and COMYN-WATTIAU, I. (2006). Developing a Framework for Analyzing IS/IT Backsourcing. 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. 330-340.
- SI-SAID CHERFI, S., AKOKA, J. and COMYN-WATTIAU, I. (2006). Use Case Modeling and Refinement: A Quality-based Approach. In: *Conceptual Modeling - ER 2006*. Springer, pp. 84-97.
- AKOKA, J. and COMYN-WATTIAU, I. (2004). Comparaison de deux modèles. In: *Actes du 9e colloque de l'AIM*. Association for Information Management (AIM).
- SI SAID, S., AKOKA, J. and COMYN-WATTIAU, I. (2003). A Framework for Conceptual Modeling Quality Evaluation. In: *Proceedings of the 13th International Conference on Software Quality*. ASQ Software Division.
- AKOKA, J. and COMYN-WATTIAU, I. (2003). Audit d'un site web. Une démarche structurée. In: *Actes du 8ème Colloque de l'AIM*. Association for Information Management (AIM).

- WATTIAU, I., LAMMARI, N. and AKOKA, J. (2003). Supporting Database Evolution Using Ontologies Matching. In: *9th International Conference, Object-Oriented Information Systems (OOIS2003)*. Springer, pp. 284-288.
- SI-SAID, S., AKOKA, J. and COMYN-WATTIAU, I. (2002). Conceptual Modeling Quality. From EER to UML Schemas Evaluation. In: *Conceptual Modeling - ER 2002*. Springer, pp. 414-428.
- THANH QUANG, N. and COMYN-WATTIAU, I. (2002). COSTS - Based System Engineering - The Linguistics Approach. In: *Proceedings of the First International Conference on COST-Based Software Systems*. ICCBSS.
- WATTIAU, I., SI-SAID CHERFI, S. and AKOKA, J. (2002). Measuring UML Conceptual Modeling Quality - Method and Implementation. In: *18èmes journées Bases de données avancées (BDA)*. Institut National de Recherche en Informatique et en Automatique (INRIA).
- 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.
- AKOKA, J. and COMYN-WATTIAU, I. (2001). Proposition d'un cadre conceptuel. In: *Actes du 6ème Colloque de l'A.I.M.* Association for Information Management (AIM), pp. 87-94.
- LAMMARI, L., AKOKA, J. and COMYN-WATTIAU, I. (2000). Hiérarchies de généralisation dans les bases de données relationnelles : une approche hybride de rétro-conception. In: *INFORSID LYON - XVIIIème Congrès*. INFORSID, pp. 99-116.
- AKOKA, J. and COMYN-WATTIAU, I. (1999). Datawarehouses et systèmes multidimensionnels - Comparaison des méthodes de modélisation. In: *Actes du 4ème Colloque de l'AIM*. Association for Information Management (AIM), pp. 199-209.
- AKOKA, J., COMYN-WATTIAU, I. and LAMMARI, N. (1999). Relational Database Reverse Engineering. Elicitation of Generalization Hierarchies. In: *Advances in Conceptual Modeling. ER'99 Workshops on Reverse Engineering in Information Systems*. Springer, pp. 173-185.
- COMYN-WATTIAU, I., AKOKA, J. and KEDAD, Z. (1998). Combining View Integration and Schema Clustering to Improve Database Design. In: *BDA'98. Quatorzièmes Journées Bases de Données Avancées*. Laboratoire PriSM, Université de Versailles, pp. 59-80.
- BRIOLAT, D., AKOKA, J. and COMYN-WATTIAU, I. (1998). Electronic Commerce on the Internet in France. Myth or Reality? In: *First International Conference on Telecommunications and Electronic Commerce (ICTEC)*. Financial Management Association (FMA), pp. 354-364.
- BRIOLAT, D., AKOKA, J. and WATTIAU, I. (1998). Le commerce électronique sur Internet en France. Mythe ou Réalité ? In: *Commerce Electronique/Electronic Commerce*. pp. 496-515.
- AKOKA, J. and COMYN-WATTIAU, I. (1998). MeRCI: An Expert System for Software Reverse Engineering. In: *4World Congress on Expert Systems Application of Advanced Information Technologies*. Cognizant Communication Corporation, pp. 209-217.
- AKOKA, J. and COMYN-WATTIAU, I. (1998). Une méthode de rétroconception de base de données relationnelles. In: *Ré-ingénierie des Systèmes d'Information*. Financial Management Association (FMA), pp. 82-91.
- AKOKA, J. and COMYN-WATTIAU, I. (1997). An Expert System for Long Term Interest Rate Forecasting. In: *EXPERTSYS-97 Artificial Intelligence Applications*. IITT, pp. 117-124.
- AKOKA, J. and COMYN-WATTIAU, I. (1997). An Expert System for Predicting Judicial Risks in Public Contracts Management. In: *Proceedings of 19th International Technology Interfaces (ITI'97)*. Financial Management Association (FMA), pp. 83-90.

- AKOKA, J., BRIOLAT, D. and COMYN-WATTIAU, I. (1997). La reconfiguration des processus inter-organisationnels. In: *Management innovant, virtualité et systèmes d'information*. IECS, pp. 1-24.
- COMYN-WATTIAU, I. and METAIS, E. (1997). View Integration as a Way to Build a Semantic Dictionary for a Data Warehouse. In: *Third International Workshop on Applications of Natural Language to Information Systems*. Harbour Centre Campus of Simon Fraser University, pp. 39-56.
- METAIS, E., KEDAD, S., COMYN-WATTIAU, I. and BOUZEGHOUB, M. (1996). Implementation of a Third Generation View Integration Tool. In: *Applications of Natural Language to Information System*. IOS Press, pp. 260-275.
- AKOKA, J. and COMYN-WATTIAU, I. (1996). La planification du changement des réseaux intra-entreprises aux réseaux inter-entreprises. In: *Ile Colloque International de Management des Réseaux d'Entreprises (CIMRE'96)*. HEC Lausanne.
- COMYN-WATTIAU, I. and AKOKA, J. (1996). Logistics Information System Auditing Using Expert System Technology. In: *Critical Technology - Proceedings of the Third World Congress on Expert Systems*. Cognizant Communication Corporation, pp. 464-477.
- COMYN-WATTIAU, I. and AKOKA, J. (1996). Reverse Engineering of Relational Database Physical Schemas. In: *Conceptual Modeling - ER'96*. Springer, pp. 372-391.
- AKOKA, J. and COMYN-WATTIAU, I. (1996). UNIFESS : An Object-oriented Method for Expert System Design. In: *Critical Technology - Proceedings of the Third World Congress on Expert Systems*. Cognizant Communication Corporation, pp. 614-624.
- METAIS, E., KEDAD, Z., COMYN-WATTIAU, I. and BOUZEGHOUB, M. (1996). View Integration in the Kheops CASE Tool : Improving View Comparison with Linguistic Knowledge. In: *Fifth International Conference on Information Systems Development (ISD'96)*. ISD, pp. 229-243.
- AKOKA, J., BRIOLAT, D. and COMYN-WATTIAU, I. (1995). Damar : automate de détection avancée de malveillances sur un réseau. In: *XIIIe Congrès de l'AFAI - Réussir avec les nouvelles technologies de l'information*. Association Française de l'Audit et du Conseil Informatiques (AFAI).
- AKOKA, J., HOARAU, C. and COMYN-WATTIAU, I. (1995). La comptabilité multidimensionnelle - Le méta-modèle DREAM. In: *Modèles comptables et modèles d'organisation*. Association Francophone de Comptabilité (AFC), pp. 997-1011.
- AKOKA, J. and COMYN-WATTIAU, I. (1995). Le télétravail : implications pour les individus et les organisations. In: *Deuxième Congrès de l'AIM*. Association for Information Management (AIM).
- AKOKA, J., COMYN-WATTIAU, I. and DALAUD, R. (1995). Modelling Legal Knowledge Base Using Fuzzy Sets and Object-orientation. In: *EXPERTSYS-95 - Expert Systems Applications & Artificial Intelligence*. IITT, pp. 337-344.
- AKOKA, J. and COMYN-WATTIAU, I. (1994). A Framework for Automatic Clustering of Semantic Models. In: *Entity-relationship Approach - ER'93*. Springer, pp. 438-450.
- AKOKA, J., BRIOLAT, D. and COMYN-WATTIAU, I. (1994). An Econometric Approach. In: *European Software Cost Modelling Conference 1994*. Financial Management Association (FMA), pp. 1-23.
- AKOKA, J. and COMYN-WATTIAU, I. (1994). An Expert System for Human Resources Information System Auditing. In: *EXPERTSYS-94 - Expert Systems Applications and Artificial Intelligence*. IITT, pp. 411-418.
- AKOKA, J. and COMYN-WATTIAU, I. (1994). An Expert System for Marketing Information System Auditing. In: *Quatorzièmes Journées Internationales d'Avignon (AI'94)*. EC2, pp. 487-497.

AKOKA, J. and COMYN-WATTIAU, I. (1994). COBEX : An Expert System for Consumer Behavior Analysis. In: *Moving Toward Expert Systems Globally in the 21st Century - 2nd World Congress on Expert Systems*. Cognizant Communication Corporation, pp. 760-767.

AKOKA, J., BRIOLAT, D. and COMYN-WATTIAU, I. (1994). Estimation de la charge d'un projet en informatique de gestion : une approche économétrique. In: *4e Rencontre des Equipes de Recherche Francophone en Systèmes d'Information*. INT.

AKOKA, J., BRIOLAT, D. and COMYN-WATTIAU, I. (1994). Ex-post and Ex-ante Predictive Models for Software Effort Estimation. In: *Proceedings of the 9th International COCOMO Estimation Meeting*. University of Southern California, pp. 1-28.

AKOKA, J. and COMYN-WATTIAU, I. (1994). Intégration versus partitionnement de schémas de bases de données : deux approches complémentaires. In: *Ingénierie des Bases de Données : Migration, Intégration, Evolution*. Association Française pour la Cybernétique Economique et Technique (AFCET), pp. 83-94.

GHERNAOUTI, S. and COMYN-WATTIAU, I. (1994). Systèmes d'information en réseaux : coopération, intégration et maîtrise des aspects sécuritaires. In: *Territoires et PME-PMI en réseau*. IEMEDIE, pp. 502-514.

AKOKA, J. and COMYN-WATTIAU, I. (1994). UNIFRAME : A Methodology for Expert System Design and Development. In: *EXPERTSYS-94 - Expert Systems Applications and Artificial Intelligence*. IITT, pp. 43-50.

AKOKA, J. and COMYN-WATTIAU, I. (1993). A Framework for Automatic Clustering of Semantic Models. In: *Proceedings of the 12th International Conference on Entity-relationship Approach*. E/R Institute, pp. 432-446.

AKOKA, J. and COMYN-WATTIAU, I. (1993). An Expert System for Brand Choice Behavior. In: *EXPERTSYS 93 - Expert Systems Applications & Artificial Intelligence*. IITT, pp. 251-259.

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.

AKOKA, J. and COMYN-WATTIAU, I. (1993). L'audit des systèmes d'information : une approche par les systèmes experts. In: *La maîtrise des systèmes d'information - XIème congrès de l'AFAI*. Association Française de l'Audit et du Conseil Informatiques (AFAI).

AKOKA, J. and COMYN-WATTIAU, I. (1993). Un algorithme de classification automatique de schémas entité-association. In: *IXèmes journées bases de données avancées*. Institut National de Recherche en Informatique et en Automatique (INRIA), pp. 379-398.

COMYN-WATTIAU, I. and BOUZEGHOUB, M. (1992). A Deductive Process to Consider Constraints During View Integration. In: *VIIIèmes Journées Bases de Données Avancées*. Institut National de Recherche en Informatique et en Automatique (INRIA), pp. 360-381.

AKOKA, J. and COMYN-WATTIAU, I. (1992). A New Algorithm for Optimal Generation of Clusters. In: *Actes du Congrès DISTANCIA'92*. Financial Management Association (FMA).

COMYN-WATTIAU, I. and BOUZEGHOUB, M. (1992). Constraint Confrontation : An Important Step in View Integration. In: *Advanced Information Systems Engineering*. Springer, pp. 507-523.

AKOKA, J. and COMYN-WATTIAU, I. (1992). PTILOT : un système expert de prévision du taux d'intérêt à long terme. In: *Actes du Congrès INFORSID 1992*. Financial Management Association (FMA).

AKOKA, J., BRIOLAT, D., KOSTER, A. and COMYN-WATTIAU, I. (1992). Utilité perçue de la micro-informatique par des étudiants en gestion. In: *Information et Management - Nouveaux Paradigmes, Nouvelles Approches*. Association for Information Management (AIM), pp. 1-36.

AKOKA, J., BRIOLAT, D., KOSTER, A. and COMYN-WATTIAU, I. (1991). Students' Perception of Personal Computers in an Introduction Computer Business Course. In: *Proceedings of the Annual IACIS Conference*. International Association for Computer Information Systems (IACIS).

COMYN-WATTIAU, I. (1990). L'intégration de vues dans le système expert SECSI (Système Expert en Conception de Systèmes d'Information). In: *Actes du colloque des docteurs en informatique*. Financial Management Association (FMA), pp. 137-160.

COMYN-WATTIAU, I. and BOUZEGHOUB, M. (1990). View Integration by Semantic Unification and Transformation of Data Structures. In: *Proceedings of the 9th International Conference on Entity Relationship Approach*. Financial Management Association (FMA), pp. 413-430.

COMYN-WATTIAU, I. and METAIS, E. (1989). La conception incrémentale : une application pratique de l'intégration de vues. In: *Ve Journées Bases de Données Avancées*. Institut National de Recherche en Informatique et en Automatique (INRIA), pp. 3-22.

COMYN-WATTIAU, I., BOUZEGHOUB, M. and VIALLET, F. (1988). L'intégration de vues par unification sémantique de structures d'objets. In: *IVe Journées Bases de Données Avancées*. Institut National de Recherche en Informatique et en Automatique (INRIA).

Conferences

AKOKA, J., COMYN-WATTIAU, I. and DU MOUZA, C. (2020). Evaluer la crédibilité des sources historiques. In: *2020 Extraction et Gestion des Connaissances*.

AKOKA, J., COMYN-WATTIAU, I., LAMASSE, S. and DU MOUZA, C. (2020). Contribution of Conceptual Modeling to Enhancing Historians' Intuition – Application to Prosopography. In: *Computers and Operations Research*. Lyon.

COMYN-WATTIAU, I. and AKOKA, J. (2019). Evaluation de la Gouvernance de l'Information - Une approche holistique. In: *24ème Conférence de l'Association Information & Management*.

COMYN-WATTIAU, I. and AKOKA, J. (2019). Évaluation de la gouvernance de l'information - Une approche multifacette et multicritères. In: *37ème Édition du Congrès Informatique des Organisations et Systèmes d'Information et de Décision (INFORSID)*. Paris.

COMYN-WATTIAU, I. and AKOKA, J. (2019). Query-Based Reverse Engineering of Graph Databases – From Program to Model. In: *23rd European Conference on Advances in Databases and Information Systems (ADBIS 2019)*.

AKOKA, J., COMYN-WATTIAU, I., LAMASSE, S. and DU MOUZA, C. (2018). Modélisation Conceptuelle des Bases Prosopographiques Intégrant la Qualité. In: *Extraction et Gestion des Connaissances Conference (EGC2018)*.

COMYN-WATTIAU, I. (2018). Prosopographical Database Conceptual Modeling. In: *2018 Dagstuhl Seminar 18471*.

BEN FREDJ, F., LAMMARI, N. and COMYN-WATTIAU, I. (2018). Relational Database Anonymization – A Model-Driven Guiding Approach. In: *2018 International Conference on Information Systems Security and Privacy (ICSSP)*.

BENFREDJ, F., LAMMARI, N. and COMYN-WATTIAU, I. (2017). Approche guidée pour l'anonymisation de bases de données. In: *35ème Congrès INFORSID (INformatique des ORganisations et Systèmes d'Information et de Décision)*.

AKOKA, J. and COMYN-WATTIAU, I. (2017). Evaluation des systèmes d'information à base de technologies émergentes - Application à la blockchain. In: 35ème Congrès INFORSID (INFormatique des ORganisations et Systèmes d'Information et de Décision).

COMYN-WATTIAU, I. and AKOKA, J. (2017). Model-Driven Reverse Engineering of NoSQL Property Graph Databases. In: 2017 Institute of Electrical and Electronics Engineers (IEEE).

WATTIAU, I., AKOKA, J. and LAMMARI, N. (2003). A Framework for Database Evolution Management. In: Second Workshop on Unanticipated Software Evolution, in conjunction with ETAPS03. Varsovie.

AKOKA, J. and WATTIAU, I. (2000). Migration vs. Reverse Engineering of Network Databases.

AKOKA, J., CHOKRON, M. and WATTIAU, I. (2000). Une démarche d'aide au choix d'une méthode de reconfiguration de processus.

AKOKA, J. and WATTIAU, I. (1999). Rétro-conception des datawarehouses et des systèmes multidimensionnels.

WATTIAU, I., AKOKA, J. and KEDAD, E. (1998). Combining View Integration and Schema Clustering to Improve Database Design.

BRIOLAT, D., AKOKA, J. and WATTIAU, I. (1998). Le commerce électronique sur Internet en France. Mythe ou réalité ?

WATTIAU, I. (1993). Intégration de schémas de bases de données : comment automatiser la comparaison.

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.

BRIOLAT, D., AKOKA, J. and COMYN-WATTIAU, I. (1998). *Electronic Commerce on the Internet in France. An Exploratory Survey*. ESSEC Business School.

BRIOLAT, D., AKOKA, J. and COMYN-WATTIAU, I. (1998). *Le commerce électronique sur Internet en France - Mythe ou réalité ?* ESSEC Business School.

AKOKA, J., BRIOLAT, D. and COMYN-WATTIAU, I. (1997). *La reconfiguration des processus inter-organisationnels*. ESSEC Business School.

AKOKA, J. and COMYN-WATTIAU, I. (1997). *MeRCI : An Expert System for Software Reverse Engineering*. ESSEC Business School.

AKOKA, J. and COMYN-WATTIAU, I. (1996). *Entity-relationship and Object-oriented Model Automatic Clustering*. ESSEC Business School.

AKOKA, J., BRIOLAT, D. and COMYN-WATTIAU, I. (1996). *Prédiction d'effort pour les projets informatiques : un modèle économétrique*. ESSEC Business School.

BENAZET, A., GUEHL, H. and COMYN-WATTIAU, I. (1996). *Une méthode d'insertion d'objet dans une hiérarchie de généralisation*. ESSEC Business School.

COMYN-WATTIAU, I. and AKOKA, J. (1994). *Classification automatique de schémas conceptuels : une approche unifiée*. ESSEC Business School.

GHERNAOUTI, S. and COMYN-WATTIAU, I. (1994). *Systèmes d'information en réseaux : coopération, intégration et maîtrise des aspects sécuritaires*. ESSEC Business School.

AKOKA, J. and COMYN-WATTIAU, I. (1991). *A New Algorithm for Optimal Generation of Clusters*. ESSEC Business School.

AKOKA, J. and COMYN-WATTIAU, I. (1991). *PTILOT : un système expert de prévision du taux d'intérêt à long terme*. ESSEC Business School.

COMYN-WATTIAU, I. and BOUZEGHOUB, M. (1989). *Un algorithme d'intégration de vues dans les bases de données sémantiques*. ESSEC Business School.

COMYN-WATTIAU, I., BOUZEGHOUB, M. and RICHARD, C. (1987). *Conception de bases de données : état de l'art*. ESSEC Business School.

COMYN-WATTIAU, I. and BOUZEGHOUB, M. (1986). *Une interface conviviale pour l'acquisition et l'explication des règles dans le système expert SECSI*. ESSEC Business School.

Press

WATTIAU, I. (2023). Are French Companies Ready for the Data Revolution? *ESSEC Knowledge*.

OTHER RESEARCH ACTIVITIES

Chief Editor

Since 2020 Revue Ouverte d'Ingénierie des Systèmes d'Information

2017 - 2019 Ingénierie des Systèmes D'Information

Editorial Board Membership

2019 - 2020 Management et Data Science

2019 - 2020 Open Journal of Information System

2019 - 2020 Journal of British Blockchain Association

2018 - 2020 Systèmes d'Information et Management

2017 - 2019 Ingénierie des Systèmes D'Information

2009 Systèmes d'Information et Management

2009 - 2021 Systèmes d'Information et Management

2008 - 2009 Ingénierie des Systèmes D'Information

2005 - 2007 Systèmes d'Information et Management

2001 - 2006 Ingénierie des Systèmes D'Information

PhD Supervision

2010 Kashif MEHMOOD (ESSEC Business School), Thesis director, First Placement: Manager(IS) dans Marine Systems Limited (R&D Center) and Assistant Professor(Management - Iqra University Karachi, Defence View Housing Society, راجي، Pakistan

Other research activities

- 2020 - 2022 Chair of the Steering Committee of the International Conference on Conceptual Modeling
- 2018 - 2020 Vice-Chair of ER Steering Committee