

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

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. (2023). Knowledge contributions in design science research: Paths of knowledge types. *Decision Support Systems*, 166, pp. 113898.

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: Aurora 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., BOUZEGHOUB, 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.
- BEN FREDJ, F., LAMMARI, N. and COMYN-WATTIAU, I. (2018). Relational Database Anonymization – A Model-Driven Guiding Approach. In: *Proceedings of the 4th International Conference on Information Systems Security and Privacy ICISSP - Volume 1*, International Conference on Information Systems Security and Privacy, pp. 161-170.
- WATTIAU, I., AKOKA, J., LAMASSE, S. and DU MOUZA, C. (2018). Les bases de données prosopographiques - un état de l'art. In: *Ateliter 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 Web Application Designers - A Meta-model. In: *18th International Conference on Enterprise Information Systems (ICEIS)*. Rome: Institute for Systems and Technologies of Information, Control and Communication (INSTICC), pp. 327-335.
- 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., BOUZGHOU, 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. and WATTIAU, I. (2024). Risques induits par l'intelligence artificielle - Une approche d'aide à l'identification. In: 42ème Edition du Congrès INFORSID 2024. Nancy.

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.
- 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