Pavlos Fafalios

Curriculum Vitae

August 2026

Full name:	Pavlos Fafalios
Birth date / place:	14 July 1985 / Chios, Greece
Nationality:	Greek
Work address:	University Campus, 73100 Chania, Greece
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Emails:	pfafalios@tuc.gr, fafalios@ics.forth.gr, fafalios.pavlos@gmail.com
Web page:	http://users.ics.forth.gr/~fafalios/
Marital status	Married, one son
Languages:	Greek (Mother tongue), English (Mastery C2), French (DELF 1)

CURRENT POSITIONS

- **Assistant Professor** at the School of Production Engineering and Management of the Technical University of Crete (Chania, Greece)
- **Affiliated Researcher** at the Institute of Computer Science of the Foundation for Research and Technology – Hellas (FORTH) (Heraklion, Greece)
- **Chair** of the Special Interest Group (SIG) of CIDOC CRM (ISO 21127)

WORK / RESEARCH EXPERIENCE

Dec 2023 - Now	**Assistant Professor** Technical University of Crete - School of Production Engineering and Management Chania, Greece
Dec 2023 - Now	**Affiliated Researcher** Centre for Cultural Informatics and Information Systems Laboratory, Institute of Computer Science, Foundation for Research & Technology - Hellas (FORTH) Heraklion, Greece
June 2019 - Nov 2023	**Postdoctoral researcher** Centre for Cultural Informatics and Information Systems Laboratory, Institute of Computer Science, Foundation for Research & Technology - Hellas (FORTH) Heraklion, Greece
Feb 2020 - Sep 2023	**Visiting Lecturer** Hellenic Mediterranean University - Department of Management Science and Technology (Greece) Agios Nikolaos, Greece
June 2016 - May 2019	**Postdoctoral researcher** L3S Research Center, Leibniz University of Hanover Hannover, Germany
Dec 2010 - May 2016	**Research assistant, graduate fellow** Information Systems Laboratory, Institute of Computer Science, Foundation for Research & Technology - Hellas (FORTH) Heraklion, Greece

TEACHING EXPERIENCE

2023-now

Assistant Professor
Technical University of Crete - School of Production Engineering and Management
Chania, Greece
Courses:

- Methodology of Computer Programming (PEM 101) [winter semester 2023-2024, 2024-2025, 2025-2026, 2026-2027]
- Electronic Business (PEM 230) [winter semester 2023-2024, 2024-2025, 2025-2026, 2026-2027]
- Business Intelligence, Analytics and Big Data Analysis (PEM 518) [spring semester 2023-2024, 2024-2025, 2025-2026, 2026-2027]
- Electronic Business and Digital Marketing (MBA 0205) [spring semester 2023-2024, 2024-2025, 2025-2026] [Postgraduate program "*MSc in Business Administration*", co-teaching, 21 hours]
- Electronic Business and Digital Marketing (code: 2002) [spring semester 2023-2024, 2025-2026] [Postgraduate program "*MSc in Business Operations Management*", in co-operation with University of West Attica, co-teaching, 30 hours]

2019-2023

Visiting Lecturer
Hellenic Mediterranean University - Department of Management Science and Technology
Agios Nikolaos, Greece
Courses:

- Algorithms and Data Structures (MST304) [winter semester 2020-2021, 2021-2022, 2022-2023]
- Software Technology (MST602) [spring semester 2019-2020, 2020-2021, 2021-2022, 2022-2023]
- e-Commerce and Internet Applications (MST604) [spring semester 2019-2020, 2020-2021, 2021-2022, 2022-2023]

Total: 11 semester courses, 13 weeks each (with 4 teaching hours per week each).

2010-2016

Teaching Assistant
University of Crete - Computer Science Department
Heraklion, Greece
Courses: CS-150 Programming (spring semester 2009-2010), CS-252 Object-Oriented Programming (winter semesters 2013-2014, 2014-2015, 2015-2016), CS-351 Information System Analysis and Design (winter semesters 2010-2011, 2011-2012, 2012-2013), CS-359 Web Programming (spring semesters 2010-2011, 2012-2013), CS-463 Information Retrieval Systems (spring semesters 2014-2015, 2015-2016), CS-561 Web Data Management (spring semester 2013-2014)
Duties: Lecturing, student supervision and consulting, preparing exercises and projects, marking

EDUCATION

Oct 2012 - May 2016 (**PhD**)

Ph.D., Computer Science Department, University of Crete, Greece
Thesis title: *"Exploiting Linked Data in Exploratory Search"*
Thesis hyperlink: http://hdl.handle.net/10442/hedi/38725
Thesis supervisor: Yannis Tzitzikas

Feb 2010 - July 2012 (**MSc**)

M.Sc. in Information Systems and E-commerce Technologies, Computer Science Department, University of Crete, Greece
Thesis title: *"Indexes and Algorithms for Scalable and Flexible Instant Overview Search"*
Thesis hyperlink: https://elocus.lib.uoc.gr/dlib/b/f/5/metadata-dlib-1348212409-493715-24126.tkl
Thesis supervisor: Yannis Tzitzikas
Average grade of graduate courses (of both MSc and PhD): 8.7/10.0

Sep 2003 - June 2009 (**Dipl. Eng.**)

Engineer's degree in Information and Communication Systems Engineering, School of Engineering, University of the Aegean, Greece
Thesis title: *"Meta-Seeker: A Retroactive Algorithm for Personalized Information from Multiple Web Search Services"*
Thesis hyperlink: http://hdl.handle.net/11610/8634
Thesis supervisor: Ioannis Anagnostopoulos
Degree grade: 7.8/10.0

EXPERTISE AND RESEARCH AREAS

- Information Systems (Data Management Systems, Data Access and Exploration Systems)
- Information Retrieval (Exploratory Search, Semantic Search, Interactive Information Access)
- Conceptual Modeling and Knowledge Representation (Ontologies, Data Models, CIDOC CRM)
- Knowledge Engineering (Data Integration, Data Mining, Knowledge Extraction, Semantics)
- Semantic Web and Linked Data (Query Languages, Query Federation)
- Cultural Informatics (Data Models, Workflows and Systems, Data Integration, Semantic interoperability)
- Digital Humanities (Data Models, Workflows and Systems, Data Integration, Semantic interoperability)

PUBLICATIONS

Journal publications (peer-reviewed)

1. **P. Fafalios** and P. Papadakos, *"Theophrastus: On Demand and Real-Time Automatic Annotation and Exploration of (Web) Documents using Open Linked Data",* Web Semantics: Science, Services and Agents on the World Wide Web, Vol. 29 (2014), Elsevier (ISSN: 1570-8268). https://doi.org/10.1016/j.websem.2014.07.009

2. **P. Fafalios**, P. Papadakos and Y. Tzitzikas, *"Enriching Textual Search Results at Query Time using Entity Mining, Linked Data and Link Analysis"*, International Journal of Semantic Computing, Vol. 08, No. 04 (2014), World Scientific (ISSN: 1793-7108). https://doi.org/10.1142/S1793351X14400170

3. **P. Fafalios** and Y. Tzitzikas, *"Type-ahead Exploratory Search through Typo and Word Order Tolerant Autocompletion"*, Journal of Web Engineering, Vol. 14, No. 1 & 2 (2015), Rinton Press (ISSN: 1540-9589). https://journals.riverpublishers.com/index.php/JWE/article/view/3893

4. **P. Fafalios**, M. Baritakis and Y. Tzitzikas, *"Exploiting Linked Data for Open and Configurable Named Entity Extraction"*, International Journal on Artificial Intelligence Tools, Vol. 24, No. 02 (2015), World Scientific (ISSN: 1793-6349). https://doi.org/10.1142/S0218213015400126

5. Y. Tzitzikas, C. Allocca, C. Bekiari, Y. Marketakis, **P. Fafalios**, M. Doerr, N. Minadakis, T. Patkos, L. Candella, *"Unifying Heterogeneous and Distributed Information about Marine Species through the Top Level Ontology MarineTLO"*, Program: Electronic library and Information Systems, Special Issue on Application of Metadata and Semantics in Science, Vol. 50, No. 1 (2016), Emerald (ISSN: 0033-0337). https://doi.org/10.1108/PROG-10-2014-0072

6. M. Mountantonakis, N. Minadakis, Y. Marketakis, **P. Fafalios**, Y. Tzitzikas, *"Quantifying the Connectivity of a Semantic Warehouse and Understanding its Evolution over Time"*, International Journal on Semantic Web and Information Systems (IJSWIS), Vol. 12, Issue 03 (2016), IGI Global (ISSN: 1552-6283). https://doi.org/10.4018/IJSWIS.2016070102

7. **P. Fafalios** and Y. Tzitzikas, *"Stochastic Re-Ranking of Biomedical Search Results based on Extracted Entities",* Journal of the Association for Information Science and Technology (JASIST), Vol. 68, No. 11 2017. https://doi.org/10.1002/asi.23877

8. **P. Fafalios**, H. Holzmann, V. Kasturia, and W. Nejdl, *"Building and Querying Semantic Layers for Web Archives (Extended Version)"*, International Journal on Digital Libraries, 21, 149–167 (2018). Springer Berlin Heidelberg. https://doi.org/10.1007/s00799-018-0251-0

9. **P. Fafalios**, V. Iosifidis, K. Stefanidis, and E. Ntoutsi, *"Tracking the History and Evolution of Entities: Entity-centric Temporal Analysis of Large Social Media Archives"*, International Journal on Digital Libraries, 21, 5–17 (2018). Springer Berlin Heidelberg. https://doi.org/10.1007/s00799-018-0257-7

10. **P. Fafalios** and Y. Tzitzikas, "Answering SPARQL Queries on the Web of Data through Zero-Knowledge Link Traversal", ACM SIGAPP Applied Computing Review, 19(3) (2019). https://doi.org/10.1145/3372001.3372003

11. E. Ntoutsi, **P. Fafalios**, U. Gadiraju, V. Iosifidis, W. Nejdl, M. Vidal, S. Ruggieri, F. Turini, S. Papadopoulos, E. Krasanakis, I. Kompatsiaris, K. Kinder-Kurlanda, C. Wagner, F. Karimi, M. Fernandez, H. Alani, B. Berendt, T. Kruegel, C. Heinze, K. Broelemann, G. Kasneci, T. Tiropanis, S. Staab, *"Bias in data-driven artificial intelligence systems – An introductory survey"*, WIREs Data Mining and Knowledge Discovery, 10:e1356 (2020). https://doi.org/10.1002/widm.1356

12. C. Nikas, G. Kadilierakis, **P. Fafalios**, Y. Tzitzikas, *"Keyword Search over RDF: Is a Single Perspective Enough?"*, Big Data and Cognitive Computing, 4(3):22 (2020). https://doi.org/10.3390/bdcc4030022

13. K. Petrakis, G. Samaritakis, T. Kalesios, E. García Domingo, A. Delis, Y. Tzitzikas, M. Doerr, **P. Fafalios**, *"Digitizing, Curating and Visualizing Archival Sources of Maritime History: the case of ship logbooks of the nineteenth and twentieth centuries"*. Drassana, No. 28, 60–87 (2021). https://doi.org/10.51829/Drassana.28.649

14. A. Roy, **P. Fafalios**, A. Ekbal, X. Zhu, S. Dietze, *"Exploiting stance hierarchies for cost-sensitive stance detection of Web documents"*, Journal of Intelligent Information Systems (2021), Springer, https://doi.org/10.1007/s10844-021-00642-z

15. **P. Fafalios**, K. Petrakis, G. Samaritakis, K. Doerr, A. Kritsotaki, Y. Tzitzikas, M. Doerr, *"FAST CAT: Collaborative Data Entry and Curation for Semantic Interoperability in Digital Humanities"*, Journal on Computing and Cultural Heritage, Vol. 14, Issue 4 (2021), ACM. https://doi.org/10.1145/3461460

16. K. Boland, **P. Fafalios**, A. Tchechmedjiev, S. Dietze, K. Todorov, *"Beyond Facts - a Survey and Conceptualisation of Claims in Online Discourse Analysis"*, Semantic Web journal, Volume 13, Number 5 (2022), IOS Press. https://doi.org/10.3233/SW-212838

17. Y. Tzitzikas, M. Mountantonakis, **P. Fafalios**, Y. Marketakis. *"CIDOC-CRM and Machine Learning: A Survey and Future Research".* Heritage, 5(3):1612-1636 (2022). https://doi.org/10.3390/heritage5030084

18. **P. Fafalios**, A. Kritsotaki, M. Doerr, *"The SeaLiT Ontology – An Extension of CIDOC-CRM for the Modeling and Integration of Maritime History Information"*, ACM Journal on Computing and Cultural Heritage, 2023. https://doi.org/10.1145/3586080

19. **P. Fafalios**, Y. Marketakis, A. Axaridou, Y. Tzitzikas, M. Doerr, *"A Workflow Model for Holistic Data Management and Semantic Interoperability in Quantitative Archival Research"*, Digital Scholarship in the Humanities (DSH), Oxford University Press, 2023. https://doi.org/10.1093/llc/fqad018

20. N. Kontonasios, Y. Tzitzikas, **P. Fafalios**, *"Automating the Extraction of Structured Data from Large Newspaper Corpora using Layout Analysis, OCR and Generative AI"*, Journal on Computing and Cultural Heritage, 2026, ACM. https://doi.org/10.1145/3800678

21. **P. Fafalios**, T. Daglis, K. Tsagarakis, *"Decoding the Circular Economy Job Market in the EU: A Quantitative and Comparative Analysis"*, Business Strategy and the Environment, 2026, Wiley. http://doi.org/10.1002/bse.71125

22. **P. Fafalios**, K. Tsagarakis, *"A global analysis of circular economy research using metadata and topic modeling"*, Discover Environment, 2026, Springer. https://doi.org/10.1007/s44274-026-00799-w

Conference publications (peer-reviewed, full or short papers)

1. **P. Fafalios** and Y. Tzitzikas, *"Exploiting Available Memory and Disk for Scalable Instant Overview Search"*, 12th International Conference on Web Information System Engineering (WISE'11), Sydney, Australia, October 2011. https://doi.org/10.1007/978-3-642-24434-6_8

2. **P. Fafalios**, I. Kitsos and Y. Tzitzikas, *"Scalable, Flexible and Generic Instant Overview Search"*, Demo paper, 21st International Conference on World Wide Web (WWW'12), Lyon, France, April 2012. https://doi.org/10.1145/2187980.2188042

3. **P. Fafalios**, I. Kitsos, Y. Marketakis, C. Baldassarre, M. Salampasis and Y. Tzitzikas, *"Web Searching with Entity Mining at Query Time"*, 5th Information Retrieval Facility Conference (IRFC'12), Vienna, Austria, July 2012. https://doi.org/10.1007/978-3-642-31274-8_6

4. **P. Fafalios** and Y. Tzitzikas, *"X-ENS: Semantic Enrichment of Web Search Results at Real-Time"*, Demo paper, 36th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR'13), Dublin, Ireland, 27 July - 1 August 2013. https://doi.org/10.1145/2484028.2484200

5. Y. Tzitzikas, C. Allocca, C. Bekiari, Y. Marketakis, **P. Fafalios**, M. Doerr, N. Minadakis, T. Patkos and L. Candela, *"Integrating Heterogeneous and Distributed Information about Marine Species through a Top Level Ontology"*, 7th Metadata and Semantic Research Conference (MTSR'13), Thessaloniki, Greece, November 2013. https://doi.org/10.1007/978-3-319-03437-9_29

6. Y. Tzitzikas, N. Minadakis, Y. Marketakis, **P. Fafalios**, C. Allocca, N. Mountantonakis and I. Zidianaki, *"MatWare: Constructing and Exploiting Domain Specific Warehouses by Aggregating Semantic Data"*, 11th Extended Semantic Web Conference (ESWC'14), Anissaras, Heraklion, Greece, May 2014. https://doi.org/10.1007/978-3-319-07443-6_48

7. **P. Fafalios** and Y. Tzitzikas, *"Configuring Named Entity Extraction through Real-Time Exploitation of Linked Data"*, 4th International Conference on Web Intelligence, Mining and Semantic (WIMS'14), Thessaloniki, Greece, June 2014. https://doi.org/10.1145/2611040.2611085

8. **P. Fafalios** and Y. Tzitzikas, *"Post-Analysis of Keyword-based Search Results using Entity Mining, Linked Data and Link Analysis at Query Time"*, 8th IEEE International Conference on Semantic Computing (ICSC'14), Newport Beach, California, USA, June 2014. https://doi.org/10.1109/ICSC.2014.11

9. **P. Fafalios** and Y. Tzitzikas, "SPARQL-LD: A SPARQL Extension for Fetching and Querying Linked Data", Demo paper, 14th International Semantic Web Conference (ISWC'15), Bethlehem, Pennsylvania, USA, October 2015. http://ceur-ws.org/Vol-1486/paper_71.pdf

10. **P. Fafalios**, T. Yannakis and Y. Tzitzikas, *"Querying the Web of Data with SPARQL-LD"*, 20th International Conference on Theory and Practice of Digital Libraries (TPDL'16), Hannover, Germany, September 5-9, 2016. https://doi.org/10.1007/978-3-319-43997-6_14

11. **P. Fafalios**, V. Kasturia, and W. Nejdl, "*Towards a Ranking Model for Semantic Layers over Digital Archives*", Poster paper, ACM/IEEE-CS Joint Conference on Digital Libraries (JCDL'17), Toronto (Ontario, Canada), June 19-23, 2017. https://doi.org/10.1109/JCDL.2017.7991617

12. **P. Fafalios**, H. Holzmann, V. Kasturia, and W. Nejdl, *"Building and Querying Semantic Layers for Web Archives"*, 2017 ACM/IEEE-CS Joint Conference on Digital Libraries (JCDL'17), Toronto (Ontario, Canada), June 19-23, 2017. https://doi.org/10.1109/JCDL.2017.7991555 - ***Nominated for the "Best Paper" award!***

13. **P. Fafalios**, V. Iosifidis, K. Stefanidis, and E. Ntoutsi, *"Multi-aspect Entity-centric Analysis of Big Social Media Archives"*, 21st International Conference on Theory and Practice of Digital Libraries (TPDL'17), Thessaloniki, Greece, September 18-21, 2017. https://doi.org/10.1007/978-3-319-67008-9_21

14. **P. Fafalios**, V. Iosifidis, E. Ntoutsi, and S. Dietze, *"TweetsKB: A Public and Large-Scale RDF Corpus of Annotated Tweets"*, 15th Extended Semantic Web Conference (ESWC'18), Heraklion, Crete, Greece, June 3-7, 2018. https://doi.org/10.1007/978-3-319-93417-4_12 - ***Nominated for the "Best Paper" award!***

15. **P. Fafalios**, V. Kasturia, and W. Nejdl, *"Ranking Archived Documents for Structured Queries on Semantic Layers"*, 2018 ACM/IEEE-CS Joint Conference on Digital Libraries (JCDL'18), Fort Worth (Texas, USA), June 3-6, 2018. https://doi.org/10.1145/3197026.3197049

16. M. Quraishi, **P. Fafalios**, and E. Herder, *"Viewpoint Discovery and Understanding in Social Networks"*, 10th International ACM Web Science Conference (WebSci'18), Amsterdam, the Netherlands, May 27-30, 2018. https://doi.org/10.1145/3201064.3201076

17. **P. Fafalios** and Y. Tzitzikas, *"How Many and What Types of SPARQL Queries can be Answered through Zero-Knowledge Link Traversal?"*, 34th ACM/SIGAPP Symposium On Applied Computing. Limassol, Cyprus, April 8-12, 2019. https://doi.org/10.1145/3297280.3297505

18. R. S. João, **P. Fafalios**, and S. Dietze, *"Same but Different: Distant Supervision for Predicting and Understanding Entity Linking Difficulty"*, 34th ACM/SIGAPP Symposium On Applied Computing. Limassol, Cyprus, April 8-12, 2019. https://doi.org/10.1145/3297280.3297381

19. A. Tchechmedjiev, **P. Fafalios**, K. Boland, M. Gasquet, M. Zloch, B. Zapilko, S. Dietze, K. Todorov, *"ClaimsKG: A Knowledge Graph of Fact-Checked Claims"*, 18th International Semantic Web Conference, Auckland, New Zealand, October 26–30, 2019. https://doi.org/10.1007/978-3-030-30796-7_20

20. M. Gasquet, D. Brechtel, M. Zloch, A. Tchechmedjiev, K. Boland, **P. Fafalios**, S. Dietze, K. Todorov, *"Exploring Fact-checked Claims and their Descriptive Statistics",* Demo Paper, 18th International Semantic Web Conference, Auckland, New Zealand, October 26–30, 2019. http://ceur-ws.org/Vol-2456/paper75.pdf

21. R. S. João, **P. Fafalios** and S. Dietze, *"Better Together - An Ensemble Learner for Combining the Results of Ready-made Entity Linking Systems"*, 35th ACM/SIGAPP Symposium On Applied Computing, Brno, Czech Republic, March 30-April 3, 2020. https://doi.org/10.1145/3341105.3373883

22. G. Kadilierakis, **P. Fafalios**, P. Papadakos, and Y. Tzitzikas, *"Keyword Search over RDF using Document-centric Information Retrieval Systems"*, 17th Extended Semantic Web Conference, Heraklion, Greece, June 2-4, 2020. https://doi.org/10.1007/978-3-030-49461-2_8

23. G. Kadilierakis, C. Nikas, **P. Fafalios**, P. Papadakos, and Y. Tzitzikas, *"Elas4RDF: Multi-perspective Triple-centered Keyword Search over RDF using Elasticsearch",* Demo Paper, 17th Extended Semantic Web Conference, Heraklion, Greece, June 2-4, 2020. https://doi.org/10.1007/978-3-030-62327-2_21

24. D. Dimitrov, E. Baran, **P. Fafalios**, R. Yu, X. Zhu, M. Zloch, and S. Dietze, *"TweetsCOV19 - A Knowledge Base of Semantically Annotated Tweets about the COVID-19 Pandemic"*, 29th ACM International Conference on Information and Knowledge Management, 19-23 October, 2020. https://doi.org/10.1145/3340531.3412765

25. E. Maliaroudakis, K. Boland, S. Dietze, K. Todorov, Y. Tzitzikas, and **P. Fafalios**. *"ClaimLinker: Linking Text to a Knowledge Graph of Fact-checked Claims"*, Demo Paper, In Companion Proceedings of the Web Conference 2021 (ACM), April 19–23, 2021. https://doi.org/10.1145/3442442.3458601

26. C. Nikas, **P. Fafalios** and Y. Tzitzikas, *"Open Domain Question Answering over Knowledge Graphs using Keyword Search, Answer Type Prediction, SPARQL and Pre-trained Neural Models"*, 20th International Semantic Web Conference, October 24-28, 2021. https://doi.org/10.1007/978-3-030-88361-4_14

27. **P. Fafalios**, K. Konsolaki, L. Charami, K. Petrakis, M. Paterakis, D. Angelakis, Y. Tzitzikas, C. Bekiari and M. Doerr, *"Towards Semantic Interoperability in Historical Research: Documenting Research Data and Knowledge with Synthesis"*, 20th International Semantic Web Conference, Oct 24-28, 2021. https://doi.org/10.1007/978-3-030-88361-4_40

28. G. Rinakakis, K. Petrakis, Y. Tzitzikas and **P. Fafalios**, "*FastCat Catalogues: Interactive Entity-based Exploratory Analysis of Archival Documents"*, Short Paper, 2023 ACM/IEEE Joint Conference on Digital Libraries (JCDL'23), Santa Fe, New Mexico, USA, June 26-30, 2023. https://doi.org/10.1109/JCDL57899.2023.00035

29. T. Daglis, G. Tsironis, **P. Fafalios**, K. Tsagarakis, *"Mapping Circular Economy in Spain with LinkedIn data"*, 6th International Conference on Advanced Research Methods and Analytics, Valencia, Spain, 26-28 June, 2024. https://doi.org/10.4995/CARMA2024.2024.17817

30. Y. Marketakis, A. Kritsotaki, A. Axaridou, **P. Fafalios**, M. Mountantonakis, Y. Tzitzikas, *"On Transforming FoodEx2 to a Standardized and Interoperable Thesaurus"*, 11th International Conference on ICT in Agriculture, Food & Environment (HAICTA 2024), Samos, Greece, October 17-20, 2024. https://doi.org/10.3390/proceedings2025117006

31. I. Oikonomakis, **P. Fafalios**, M. Mountantonakis, and Y. Tzitzikas, *"Modeling Modern and Historical Data as a Knowledge Graph: A Case Study for Earthquake Data"*, 18th International Conference on Metadata and Semantics Research (MTSR 2024), Athens, Greece, November 19-22, 2024. https://doi.org/10.1007/978-3-031-81974-2_7

32. E. Tzortzakakis and **P. Fafalios**, *"Drawio2Triples: Semantic Validation and RDF Transformation of CIDOC CRM Example Diagrams"*, 29th International Conference on Theory and Practice of Digital Libraries, Tampere, Finland, September 23-26, 2025. https://doi.org/10.1007/978-3-032-06136-2_22

33. S. Sideri, E. Patronakis, E. Nikiforos, I. Chatzichrysos, A. Baniotis, V. Zervos, S. Tzormpatzakis, M. Saridakis, I. Oikonomakis, M. Mountantonakis, **P. Fafalios** and Y. Tzitzikas, *"To Automate or not to Automate the Transcription of Ancient Earthquakes: Toward a Global Knowledge Graph about Ancient Earthquakes"*, 14th International Joint Conference on Knowledge Graphs (IJCKG 2025), Heraklion, Greece, October 15-17, 2025. https://doi.org/10.1007/978-3-031-81974-2_Fafal7

34. A. Xenofontos and **P. Fafalios**, *"Can Language Models Analyze Data? Evaluating Large Language Models for Question Answering over Datasets"*, 8th International Conference on Advanced Research Methods and Analytics (CARMA 2026), Valencia, Spain, 1-3 July, 2026. https://doi.org/10.48550/arXiv.2605.10419

35. Y. Marketakis, M. Mountantonakis, **P. Fafalios**, V. Zervos, A. Analyti, A. Langlet, A. Ellenbroek, K. J. Friedman, M. Mallow, and Y. Tzitzikas, *"From Scientific Literature to Decision Support: A Digital Workflow for Ecosystem Restoration Analysis"*, 12th International Conference on Information and Communication Technologies in Agriculture, Food & Environment, Kos Island, Greece, 30 September - 3 October, 2026.

Book chapters (peer-reviewed)

1. **P. Fafalios** and Y. Tzitzikas, *"Exploratory Professional Search through Semantic Post-Analysis of Search Results"*, Professional Search in the Modern World, Lecture Notes in Computer Science (LNCS), Vol. 8830, Springer, 2014. https://doi.org/10.1007/978-3-319-12511-4_9

2. M. Mountantonakis, N. Minadakis, Y. Marketakis, **P. Fafalios** and Y. Tzitzikas, *"Connectivity, Value and Evolution of a Semantic Warehouse"*, Book chapter at "Innovations, Developments, and Applications of Semantic Web and Information Systems", pp. 1-31, 2018, IGI Global. https://doi.org/10.4018/978-1-5225-5042-6.ch001

3. **P. Fafalios**, G. Samaritakis, K. Petrakis, K. Doerr, A. Kritsotaki, A. Axaridou, and M. Doerr, *"Building and Exploring a Semantic Network of Maritime History Data"*, Mediterranean Seafarers in Transition – Maritime Labour, Communities, Shipping and the challenge of industrialization 1850s-1920s, Series: Brill's Studies in Maritime History, Volume: 14, 2022, Brill. https://doi.org/10.1163/9789004514195_019

Workshop publications (peer-reviewed, full papers)

1. **P. Fafalios**, M. Salampasis and Y. Tzitzikas, *"Exploratory Patent Search with Faceted Search and Configurable Entity Mining"*, 1st International Workshop on Integrating IR technologies for Professional Search, in conjunction with the 35th European Conference on Information Retrieval (ECIR'13), Moscow, Russia, March 2013. http://ceur-ws.org/Vol-968/irps_8.pdf

2. Y. Tzitzikas, N. Minadakis, Y. Marketakis, **P. Fafalios**, C. Allocca and N. Mountantonakis, *"Quantifying the Connectivity of a Semantic Warehouse"*, 4th International Workshop on Linked Web Data Management (LWDM'14), in conjunction with the 17th International Conference on Extending Database Technology (EDBT'14), Athens, Greece, March 2014. http://ceur-ws.org/Vol-1133/paper-40.pdf

3. M. Mountantonakis, C. Allocca, **P. Fafalios**, N. Minadakis, Y. Marketakis, C. Lantzaki and Y. Tzitzikas, *"Extending VoID for Expressing the Connectivity Metrics of a Semantic Warehouse"*, 1st International Workshop on Dataset Profiling & Federated Search for Linked Data (PROFILES'14), in conjunction with the 11th Extended Semantic Web Conference (ESWC'14), Anissaras, Heraklion, Greece, May 2014. http://ceur-ws.org/Vol-1151/paper10.pdf

4. T. Yannakis, **P. Fafalios**, and Y. Tzitzikas, *"Heuristics-based Query Reordering for Federated Queries in SPARQL 1.1 and SPARQL-LD"*, 2nd Workshop on Querying the Web of Data (QuWeDa), in conjunction with the 15th Extended Semantic Web Conference (ESWC'18), Heraklion, Crete, Greece, June 3-7, 2018. http://ceur-ws.org/Vol-2110/paper7.pdf

5. N. Mohapatra, V. Iosifidis, A. Ekbal, S. Dietze, and **P. Fafalios**, *"Time-Aware and Corpus-Specific Entity Relatedness"*, Workshop on Deep Learning for Knowledge Graphs and Semantic Technologies (DL4KGS), in

conjunction with the 15th Extended Semantic Web Conference (ESWC'18), Heraklion, Crete, Greece, June 3-7, 2018. http://ceur-ws.org/Vol-2106/paper4.pdf

6. K. Boland, **P. Fafalios**, A. Tchechmedjiev, K. Todorov, and S. Dietze, *"Modeling and Contextualizing Claims"*, 2nd International Workshop on Contextualized Knowledge Graphs (CKG 2019), in conjunction with the 18th International Semantic Web Conference (ISWC 2019), Auckland, New Zealand, 26-30 October, 2019. http://ceur-ws.org/Vol-2599/CKG2019_paper_1.pdf

7. S. Gangopadhyay, K. Boland, D. Dessí, S. Dietze, **P. Fafalios**, A. Tchechmedjiev, K. Todorov, and H. Jabeen, "*Truth or Dare: Investigating Claims Truthfulness with ClaimsKG"*, 2nd International Workshop on Linked Data-driven Resilience Research (D2R2'23), co-located with ESWC 2023, Hersonissos, Greece, May 28, 2023. https://ceur-ws.org/Vol-3401/paper7.pdf

Edited volumes

1. B. Xu, B. Qin, Y. Tzitzikas, Z. Wang, X. Mao, M. Liu, **P. Fafalios**, Y. Liu, Z. Tian, M. Mountantonakis, China Conference on Knowledge Graph and Semantic Computing and International Joint Conference on Knowledge Graphs, CCKS-IJCKG 2024, Chongqing, China, September 20-22, 2024, Conference Proceedings, eBook ISBN: 978-981-96-1809-5. https://doi.org/10.1007/978-981-96-1809-5

Publications in magazines

1. Y. Tzitzikas, C. Allocca, C. Bekiari, Y. Marketakis, **P. Fafalios** and N. Minadakis, *"Ontology-based Integration of Heterogeneous and Distributed Information of the Marine Domain"*, ERCIM News, No. 96, Jan' 2014. https://ercim-news.ercim.eu/images/stories/EN96/EN96-web.pdf

2. M. Doerr, **P. Fafalios**, A. Delis, *"Digital Seafaring: Digitising, Curating and Exploring Archival Sources of Maritime history"*, ERCIM News, No. 124, Jan' 2021. https://ercim-news.ercim.eu/images/stories/EN124/EN124-web.pdf

3. **P. Fafalios**, L. Charami, K. Dalakoura, *"Documenting Data and Knowledge about Feminisms and Politics in the Interwar Balkans with Synthesis-Core",* ERCIM News, No. 133, April 2023. https://ercim-news.ercim.eu/images/stories/EN133/EN133-web.pdf

4. D. Angelakis, L. Charami, **P. Fafalios**, C. Georgis, *"From Cultural Heritage Assets to Cultural Linked Data – the Case of the Archaeological Museum of Messara"*, ERCIM News, No. 136, January 2024. https://ercim-news.ercim.eu/images/stories/EN136/EN136-web.pdf

5. N. Kontonasios, Y. Tzitzikas, **P. Fafalios**, *"AI-driven Extraction of Structured Data from a Large Newspaper Archive"*, ERCIM News, No. 141, January 2025, https://ercim-news.ercim.eu/images/stories/EN141/EN141-web.pdf

Published Abstracts (with oral presentations)

1. **P. Fafalios**, I. Kitsos and Y. Tzitzikas, *"Κλιμακώσιμη και Ευέλικτη Υποστήριξη Στιγμιαίας Επισκοπικής Αναζήτησης" (Scalable, Flexible and Generic Instant Overview Search)*, Demo paper, 11th Hellenic Data Management Symposium (HDMS'12), Chania, Greece, June 2012. http://hdms2012.softnet.tuc.gr/HDMS2012.pdf

2. **P. Fafalios**, K. Doerr, A. Kritsotaki, K. Petrakis, G. Samaritakis, A. Axaridou, G. Bruseker, Y. Tzitzikas and M. Doerr, *"Challenges and solutions towards creating a semantic network of historical maritime data"*, Data for History 2021: Modelling Time, Space, Agents, Virtual Conference, 19 May – 30 June 2021. https://d4h2020.sciencesconf.org/data/pages/Fafalios_Doerr_Kritsotaki_Challenges_and_solutions_1.pdf

3. A. Delis, **P. Fafalios** and M. Doerr, *"Digital Seafaring: Digitising, Curating and Exploring Archival Sources of Maritime History",* Baltic Connections: A Conference in Social Science History, Jyväskylä, Finland, June 16-17, 2022. https://www.uni-bamberg.de/fileadmin/digihist/PDF/SCHELTJENS_LAND_Session_Proposal_BC2022.pdf

4. **P. Fafalios,** *"Advanced IT Tools for Historical Research with Archival Material",* Abstract published and presented at "8th IMHA International Congress of Maritime History", Porto, Portugal, June 28 – July 02, 2022. http://imha2020.com/docs/S.%2011.%203..pdf

5. **P. Fafalios**, *"Historical Research meets Semantic Interoperability: The Documentation System SYNTHESIS and its Application in Art History Research"*, Digital Humanities 2022, Online Event, July 27-29, 2022. https://dh2022.dhii.asia/abstracts/145

6. **P. Fafalios**, *"From Archival Material to Archival Interlinked Data: Documenting the History of Feminism with the 'Synthesis' System*", Workshop on *Entangled Histories of Feminist Advocacies in the Interwar Balkans and Central Europe (1923-1939)*, University of Crete, Department of History and Archaeology, Rethymno, May 19-20, 2023. http://feminisms-politics.ia.uoc.gr/sites/default/files/workshops_documents/Fafalios_Presentation.pdf

7. **P. Fafalios**, T. Daglis, K. Tsagarakis, *"Understanding the Circular Economy Job Market Globally through the Lens of LinkedIn"*, 5th Symposium on Circular Economy and Sustainability (CESUST 2024), Chania, Greece, 17-19 June, 2024. https://easychair.org/smart-program/5thCESUST2024/2024-06-19.html#talk:254277

8. **P. Fafalios**, *"Exploring CIDOC CRM datasets with A-QuB",* CIDOC 2024 - Sustainable Connections: Building Knowledge Networks, Amsterdam, Netherlands, 11-15 November, 2024. https://www.rijksmuseum.nl/en/whats-on/lectures-symposiums/cidoc2024

9. **P. Fafalios**, L. Charami, K. Konsolaki, C. Bekiari, *"Connecting the Pieces: Documenting and Interlinking the History of Feminism with the Use of Comprehensive Information Management Systems",* Feminisms and Politics in Interwar Balkans and East-Central Europe, Rethymno, Greece, November 28-30, 2024. https://fepib-conference2024.ia.uoc.gr/sites/cms.fks.uoc.gr.ieeep.en/files/Book_of_Astracts.pdf

10. **P. Fafalios**, *"The Information System SYNTHESIS and its use in the Documentation and Study of Artefacts Mobility"*, RICONTRANS concluding conference on *"Orthodox Hegemony and Art - Transfer of Russian religious art to the Balkans and the Eastern Mediterranean (late 16th - early 20th centuries)"*, Rethymno, Greece, January 23-25, 2025. https://www.ims.forth.gr/uploads/docs/2025012324_ricontrans_conference_abstracts.pdf

11. **P. Fafalios**, K. Tsagarakis, *"Decoding Circular Economy Research: A Bibliometric and Topic Analysis",* 7th International Conference on Advanced Research Methods and Analytics (CARMA 2025), Rome, Italy, July 2-4, 2025. https://doi.org/10.4995/CARMA2025.2025.20548

12. **P. Fafalios**, E. Siskos, R. Huang, I. Spanos, P. Burgherr, *"Understanding citizens' acceptance of wind power installations: A synthesis analysis across five European regions",* 10th International Symposium and 32nd National Conference on Operational Research (HELORS 2025), Chania, Greece, November 20-22, 2025. https://helors2025.eu/Book-of-Abstracts-HELORS-2025.pdf

13. **P. Fafalios**, A. Kritsotaki, C.-D. Pratikaki, M. Doerr, *"Archaeological research questions as a basis for semantic data modeling and querying"*, 32nd Annual Meeting of the European Association of Archaeologists, Athens, Greece, August 26-29, 2026. https://www.e-a-a.org/EAA2026/programme

14. A. Kritsotaki, C. Bekiari, N. Kontonasios, **P. Fafalios**, Y. Tzitzikas, *"Modeling Mediterranean Maritime Networks: Integrating Ancient Texts and Modern Logbooks through the SeaLiT Ontology*", International Conference "From the Sea to Networks: Lilybaeum and the Challenges of the Ancient Mediterranean in the Digital Age", Marsala, Italy, September 15-16, 2026. https://firs-project.univ-amu.fr/book-abstracts

Other publications (reports, prefaces, etc.)

1. **P. Fafalios** and Y. Tzitzikas, *"Entity-based Stochastic Analysis of Search Results for Query Expansion and Results Re-Ranking"*, Text Retrieval Conference (TREC'15), Gaithersburg, Maryland, USA, November 2015. https://trec.nist.gov/pubs/trec24/papers/FORTH_ICS_ISL-CL.pdf

2. C. Nikas, **P. Fafalios**, and Y. Tzitzikas, *"Two-stage Semantic Answer Type Prediction for Question Answering using BERT and Class-Specificity Rewarding"*, Proceedings of the SeMantic AnsweR Type prediction task (SMART) at ISWC 2020 Semantic Web Challenge, co-located with the 19th International Semantic Web Conference (ISWC 2020), Virtual Conference, November 5th, 2020. http://ceur-ws.org/Vol-2774/paper-03.pdf

3. K. Todorov, **P. Fafalios**, S. Dietze, *"Beyond Facts: Online Discourse and Knowledge Graphs"*, Preface Paper, Proceedings of the 1st International Workshop on Knowledge Graphs for Online Discourse Analysis (KnOD

2021), co-located with the 30th The Web Conference (WWW 2021), Virtual Event, April 14, 2021. http://ceur-ws.org/Vol-2877/preface.pdf

4. K. Todorov, **P. Fafalios**, S. Dietze, *"BeyondFacts'22: 2nd International Workshop on Knowledge Graphs for Online Discourse Analysis"*, Preface Paper, Companion Proceedings of the Web Conference 2022, Virtual Event, April 25-29, 2022. https://doi.org/10.1145/3487553.3524863

5. A. Sklavos, **P. Fafalios**, Y. Tzitzikas, *"Estimating the Cost of Executing Link Traversal based SPARQL Queries"*. arXiv preprint arXiv:2210.09100, 2022. https://doi.org/10.48550/arXiv.2210.09100

6. K. Todorov, **P. Fafalios**, D. Dimitrov, S. Dietze, *"BeyondFacts'23: 3rd International Workshop on Knowledge Graphs for Online Discourse Analysis"*, Preface Paper, Companion Proceedings of the Web Conference 2023, Austin, Texas, USA, April 30 - May 4, 2023. https://doi.org/10.1145/3543873.3589743

7. M. Doerr, **P. Fafalios**, A. Felicetti, F. Murano, A. Velios, E. Tsouloucha, *"Definition of the CRMtex - An Extension of CIDOC-CRM to Model Textual Entities"*, Version 2.0, June 2023. https://cidoc-crm.org/crmtex/fm_releases

8. M. Doerr, C. Ore, **P. Fafalios**, A. Kritsotaki, S. Stead and others, *"Definition of the CRMinf - An Extension of CIDOC-CRM to support argumentation"*, Version 1.0, October 2023. https://cidoc-crm.org/crminf/fm_releases

9. K. Todorov, **P. Fafalios**, S. Dietze, D. Dimitrov, *"Beyond Facts: 4th International Workshop on Computational Methods for Online Discourse Analysis"*, Preface Paper, Companion Proceedings of the Web Conference 2024, Singapore, May 13-17, 2024. https://doi.org/10.1145/3589335.3641296

10. Y. Tzitzikas, Y. Marketakis, M. Mountantonakis, **P. Fafalios**, M. Theodoridou, A. Axaridou, A. Kritsotaki, C. Bekiari, 2024. *"Architectural Suggestions for Ontology Management",* EFSA supporting publications, Volume 21, Issue 12, EN-9118, 67 pp., Wiley, 2024. https://doi.org/10.2903/sp.efsa.2024.EN-9118

11. Y. Tzitzikas, Y. Marketakis, **P. Fafalios**, A. Kritsotaki, A. Axaridou, M. Mountantonakis, C. Bekiari, and M. Theodoridou, 2024. *"Governance Model for Ontologies"*. EFSA supporting publications, Volume 21, Issue 12, EN-9119, 35 pp., Wiley, 2024. https://doi.org/10.2903/sp.efsa.2024.EN-9119

12. Y. Tzitzikas, Y. Marketakis, **P. Fafalios**, A. Kritsotaki, A. Axaridou, M. Mountantonakis, M. Theodoridou, C. Bekiari, *"Ontologies and Case Studies"*, EFSA supporting publications, Volume 21, Issue 12, EN-9120, 170 pp., Wiley, 2024. https://doi.org/10.2903/sp.efsa.2024.EN-9120

13. K. Todorov, **P. Fafalios**, S. Dietze, D. Dimitrov, *"BeyondFacts 2025: 5th International Workshop on Computational Methods for Online Discourse Analysis"*, Preface Paper, Companion Proceedings of the Web Conference 2025, Sydney, Australia, April 28 - May 2, 2025. https://doi.org/10.1145/3701716.3717540

14. K. Todorov, S. Dietze, D. Dimitrov, **P. Fafalios**, *"6th International Workshop on Computational Methods for Online Discourse Analysis (BeyondFacts'26)"*, Preface Paper, Companion Proceedings of the Web Conference 2026, Dubai, United Arab Emirates, June 29 - July 3, 2026. https://doi.org/10.1145/3774905.3794642

TALKS / PRESENTATIONS

1. [**Demo Presentation**] *"Scalable, Flexible and Generic Instant Overview Search",* 21st International Conference on World Wide Web (WWW'12), Lyon, France, April 2012.
2. [**Demo Presentation**] *"Κλιμακώσιμη και Ευέλικτη Υποστήριξη Στιγμιαίας Επισκοπικής Αναζήτησης",* In 11th Hellenic Data Management Symposium (HDMS'12), Chania, Greece, June 2012.
3. [**Demo Presentation**] *"X-ENS: Semantic Enrichment of Web Search Results at Real-Time",* In 36th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR'13), Dublin, Ireland, July 2013.
4. [**Paper Presentation**] *"Configuring Named Entity Extraction through Real-Time Exploitation of Linked Data",* In 4th International Conference on Web Intelligence, Mining and Semantics (WIMS'14), Thessaloniki, Greece, June 2014.

5. [**Paper Presentation**] *"Post-Analysis of Keyword-based Search Results using Entity Mining, Linked Data and Link Analysis at Query Time"*, In 8th IEEE International Conference on Semantic Computing (ICSC'14), Newport Beach, California, USA, June 2014.
6. [**Paper Presentation**] *"SPARQL-LD: A SPARQL Extension for Fetching and Querying Linked Data"*, In 14th International Semantic Web Conference (ISWC'15), Bethlehem, Pennsylvania, USA, October 2015.
7. [**Paper and Poster Presentation**] *"Entity-based Stochastic Analysis of Search Results for Query Expansion and Results Re-Ranking"*, In 2015 Text Retrieval Conference (TREC'15), National Institute of Standards and Technology, Gaithersburg, Maryland, USA, November 2015.
8. [**Paper Presentation**] *"Querying the Web of Data with SPARQL-LD"*, 20th International Conference on Theory and Practice of Digital Libraries (TPDL'16), Hannover, Germany, September 2016.
9. [**Paper Presentation**] *"Building and Querying Semantic Layers for Web Archives"*, 2017 ACM/IEEE-CS Joint Conference on Digital Libraries (JCDL'17), Toronto (Ontario, Canada), June 2017.
10. [**Paper Presentation**] *"Multi-aspect Entity-centric Analysis of Big Social Media Archives"*, 21st International Conference on Theory and Practice of Digital Libraries (TPDL'17), Thessaloniki, Greece, September 2017.
11. [**Poster Presentation**] *"Towards a Ranking Model for Semantic Layers over Digital Archives"*, Poster paper, ACM/IEEE-CS Joint Conference on Digital Libraries (JCDL'17), Toronto (Ontario, Canada), June 2017.
12. [**Paper Presentation**] *"Ranking Archived Documents for Structured Queries on Semantic Layers"*, 2018 ACM/IEEE-CS Joint Conference on Digital Libraries (JCDL'18), Fort Worth (Texas, USA), June 2018.
13. [**Paper Presentation**] *"How Many and What Types of SPARQL Queries can be Answered through Zero-Knowledge Link Traversal?"*, 34th ACM/SIGAPP Symposium On Applied Computing. Limassol, Cyprus, April 2019.
14. [**Invited Lecture**] *"Stance Detection for Fact-checking".* In *Web Science Course* (Summer Semester 2019), Department of Knowledge-Based Systems, Distributed Systems Institute, Leibniz University of Hanover, Hannover, Germany, May 2019.
15. [**Invited Talk**] *"Museums as Trusted Source of Knowledge: A Translation into Feasible Digital Services".* In *Embracing the virtual: European museums respond to the digital challenge*, ICOM, Acropolis Museum, Athens, Greece, November 2019.
16. [**Seminar Talk**] *"Documentation of Scientific Research in the Humanities and Social Sciences - The European projects SeaLiT, RICONTRANS and ReKnow".* In Web Seminar on *Information Systems for the Documentation of Scientific Research in the Humanities and Social Sciences*, FORTH-ICS, September 24, 2020.
17. [**Invited Talk**] *"Digital Seafaring - Digitising, Curating and Exploring Archival Sources of Maritime History".* Max Planck Institute for the History of Science (MPIWG), June 8, 2021.
18. [**Conference Talk**] *"Challenges and solutions towards creating a semantic network of historical maritime data",* Data for History 2021, Online Conference, June 30, 2021.
19. [**Seminar Talk**] *"Semantic documentation of research data and knowledge in the field of Art History with the SYNTHESIS system",* In Web Seminar on *Quantitative and Qualitative Data Analysis in Historical Research*, FORTH-ICS, October 7, 2021.
20. [**Paper Presentation**] *"Towards Semantic Interoperability in Historical Research: Documenting Research Data and Knowledge with Synthesis",* 20th International Semantic Web Conference, Online Conference, October 26, 2021.
21. [**Meeting Talk**] *"The SeaLiT Ontology - An extension of CIDOC-CRM for the modelling of Maritime History information",* Joint meeting of the 52nd CIDOC CRM SIG and 45th FRBR SIG, Online Meeting, February 11, 2022.
22. [**Conference Talk**] *"Advanced IT Tools for Holistic Data Management in Historical Archival Research",* Final Conference of the SeaLiT Project, FORTH-IMS, Rethymno, Greece, June 9, 2022.
23. [**Conference Talk**] *"Digital Seafaring: Digitising, Curating and Exploring Archival Sources of Maritime History",* Baltic Connections: A Conference in Social Science History, Jyväskylä, Finland, June 17, 2022.
24. [**Conference Talk**] *"Advanced IT Tools for Historical Research with Archival Material*", 8th IMHA International Congress of Maritime History, Porto, Portugal, July 01, 2022.
25. [**Conference Talk**] *"Historical Research meets Semantic Interoperability: The Documentation System SYNTHESIS and its Application in Art History Research*", Digital Humanities 2022 (DH2022), Online Conference, July 27, 2022.
26. [**Invited Talk**] *"Workflow Model and Tools for Holistic Data Management and Semantic Interoperability in Archival Research",* Metaphacts, October 27, 2022.

27. [**Invited Talk**] *"Holistic data management and semantic interoperability in historical-archival research - The case of the SeaLiT project",* Web Seminar on *Implementation Tools for Knowledge Graphs*, UNESCO Chair on Digital Cultural Heritage / Digital Heritage Research Lab, Cyprus University of Technology, April 4, 2023.
28. [**Invited Talk**] *"Documenting research data and knowledge with the information system Synthesis - The case of the RICONTRANS project",* Web Seminar on *Implementation Tools for Knowledge Graphs*, UNESCO Chair on Digital Cultural Heritage / Digital Heritage Research Lab, Cyprus University of Technology, April 4, 2023.
29. [**Workshop Talk**] *"From Archival Material to Archival Interlinked Data: Documenting the History of Feminism with the 'Synthesis' System*", Workshop on *Entangled Histories of Feminist Advocacies in the Interwar Balkans and Central Europe (1923-1939)*, University of Crete, Department of History and Archaeology, Rethymno, May 19, 2023.
30. [**Conference Talk**] *"FastCat Catalogues: Interactive Entity-based Exploratory Analysis of Archival Documents",* 2023 ACM/IEEE Joint Conference on Digital Libraries (JCDL'23), Santa Fe, New Mexico, USA, June 28, 2023.
31. [**Invited Lecture**] *"Holistic Data Management and Semantic Interoperability in Historical Research: from Data Modeling and Integration to Data Exploration and Analysis"*, NEMO Summer School 2023, University of Vienna, Austria, July 19, 2023.
32. [**Invited Lecture**] *"From Cultural Heritage Assets to Cultural Linked Data: Holistic Data Management and Semantic Interoperability in Cultural Heritage Documentation, Research and Promotion"*, ERA CHAIR MNEMOSYNE Summer School 2023, Limassol, Cyprus, October 24, 2023.
33. [**Invited Lecture**] *"Από αρχειακά έγγραφα σε αρχειακά διασυνδεδεμένα δεδομένα: η περίπτωση του έργου SeaLiT στον τομέα της ναυτιλιακής ιστορίας" ("From archival documents to archival linked data: the case of the SeaLiT project in the field of maritime history")*, Νέες Τεχνολογίες και Ψηφιακές Ανθρωπιστικές Επιστήμες (New Technologies and Digital Humanities), Webinar organized by the Institute of Mediterranean Studies of FORTH, November 29, 2023.
34. [**Invited Talk**] *"The Centre for Cultural Informatics",* First Digital Humanities Conference, Department of History and Archaeology, University of Barcelona, January 10, 2024.
35. [**Conference Talk**] *"Understanding the Circular Economy Job Market Globally through the Lens of LinkedIn",* 5th Symposium on Circular Economy and Sustainability, Chania, Greece, June 19, 2024.
36. [**Conference Talk**] *"Exploring CIDOC CRM datasets with A-QuB",* CIDOC 2024, Rijksmuseum, Amsterdam, Netherlands, November 12, 2024.
37. [**Conference Talk**] *"Connecting the Pieces: Documenting and Interlinking the History of Feminism with the Use of Comprehensive Information Management Systems"*, International Conference on Feminism and Politics in Interwar Balkans and East-Central Europe, University of Crete, Rethymno, Greece, November 30, 2024.
38. [**Conference Talk**] *"The Information System SYNTHESIS and its use in the Documentation and Study of Artefacts Mobility"*, RICONTRANS Concluding Conference, Rethymno, Greece, January 24, 2025.
39. **[Conference Talk]** *"Decoding Circular Economy Research: A Bibliometric and Topic Analysis",* 7th International Conference on Advanced Research Methods and Analytics (CARMA 2025), Roma, Italy, July 2, 2025
40. **[Training school talk]** *"Exploring CIDOC CRM datasets with A-QuB"*, Summer School on CIDOC CRM Interoperability and Applications, Heraklion, Greece, July 23, 2025.
41. **[Training school talk]** *"CIDOC CRM in Action: Applications of CIDOC CRM in Humanities and Cultural Heritage"*, Summer School on CIDOC CRM Interoperability and Applications, Heraklion, Greece, July 25, 2025.
42. **[Conference Talk]** *"An Introduction to the CIDOC-CRM",* 27th ICOM General Conference 2025, Dubai, United Arab Emirates, November 13, 2025.
43. **[Conference Talk]** *"Understanding citizens' acceptance of wind power installations: A synthesis analysis across five European regions",* 10th International Symposium and 32nd National Conference on Operational Research, Chania, Greece, November 20, 2025.
44. **[Meeting Talk]** *"A Meta-Level CIDOC-CRM Model for Representing Intangible Heritage Patterns: The Case of the Tuna Canning Industry in the Low Guadiana"*, Joint meeting of the 62nd CIDOC CRM & 55th FRBR/LRMoo SIG meeting, Oxford, United Kingdom, March 25, 2026.
45. **[Conference Talk]** *"Can Language Models Analyze Data? Evaluating Large Language Models for Question Answering over Datasets",* 8th International Conference on Advanced Research Methods and Analytics (CARMA 2026), Valencia, Spain, July 1, 2026.

COMMUNITY SERVICE / MEMBERSHIP

Member of Scientific Communities

- Chair of the Special Interest Group (SIG) of **CIDOC CRM** (ISO 21127:2014; https://cidoc-crm.org/)
- Professional Member of **Association for Computing Machinery (ACM)** - Member Number: 9230193
- Member of the **International Council of Museums (ICOM)** – Member Number: 180358

Member of Organizing Committee

- **[Co-organizer]** 6th International Workshop on Computational Methods for Online Discourse Analysis (Beyond Facts 2026), co-located with The Web Conference 2026 - https://beyondfacts2026.wordpress.com/
- **[Local Chair]** 14th International Joint Conference on Knowledge Graphs (IJCKG 2025) - https://ijckg2025.github.io/
- **[Co-organizer]** 5th International Workshop on Computational Methods for Online Discourse Analysis (Beyond Facts 2025), co-located with The Web Conference 2025 - https://beyondfacts2025.wordpress.com/
- **[Program Committee Chair]** 13th International Joint Conference on Knowledge Graphs (IJCKG 2024), organized jointly with the 18th China Conference on Knowledge Graph and Semantic Computing (CCKS 2024) - https://sigkg.cn/ccks-ijckg2024/
- **[Co-organizer]** Training School on Business intelligence analytics for digital and green transition, co-located with the 5th Symposium on Circular Economy and Sustainability, Chania, Greece, June 15-20, 2024. https://5th.circulareconomy2050.eu/index.php/program#sideve
- **[Co-organizer]** 4th International Workshop on Computational Methods for Online Discourse Analysis (Beyond Facts 2024), co-located with The Web Conference 2024 - https://beyondfacts2024.wordpress.com/
- **[Co-organizer]** 3rd International Workshop on Knowledge Graphs for Online Discourse Analysis (Beyond Facts 2023), co-located with The Web Conference 2023 - https://beyondfacts2023.wordpress.com/
- **[Co-organizer]** 2nd International Workshop on Knowledge Graphs for Online Discourse Analysis (Beyond Facts 2022), co-located with The Web Conference 2022 - https://knod22.wordpress.com/
- **[Co-organizer]** 1st International Workshop on Knowledge Graphs for Online Discourse Analysis (KnOD 2021), co-located with The Web Conference 2021 - https://knod2021.wordpress.com/
- **[Proceedings Chair]** 15th International Conference on Web-based Learning (ICWL 2016) - http://icwl2016.dis.uniroma1.it/

Editor / Editorial Board Member / Referee

- **[Topic Editor]** Frontiers in Sustainability - Research Topic: Circular Economy and Sustainability in the Data Age: AI, Big Data, and Computational Methods for Measuring and Accelerating the Transition (**2026-2027**)
- **[Editorial Board Member]** Transactions on Graph Data and Knowledge - Special Issue: Semantic Digital Humanities, Schloss Dagstuhl – Leibniz-Zentrum für Informatik (**2026**-**2027**)
- **[Editorial Board Member]** Humanities & Social Sciences Communications, Springer Nature (**2025-now**)
- **[Editorial Board Member]** Data in Brief, Elsevier (**2025-now**)
- **[Referee]** ACM Journal on Computing and Cultural Heritage (**2021**-**2025**)
- **[Referee]** Semantic Web Journal (IOS press) (**2020**, **2022, 2025,2026**)
- **[Referee]** Data in Brief, Elsevier (**2025**)
- **[Referee]** Journal of Cleaner Production (Elsevier) (**2025**)
- **[Referee]** Digital Scholarship in the Humanities (Oxford University Press) (**2024**)
- **[Referee]** Scientific Data (Nature) (**2024**)
- **[Referee]** Journal of Web Semantics (Elsevier) (**2021**, **2022**)
- **[Referee]** International Journal of Metadata, Semantics and Ontologies (Inderscience Publishers) (**2021, 2023**)
- **[Referee]** ACM Transactions on the Web (TWEB) (**2019**, **2021**)
- **[Referee]** Information Systems (Elsevier) (**2020**)
- **[Referee]** IEEE Access (**2020**)
- **[Referee]** The VLDB Journal (**2019**)
- **[Referee]** Journal of the Association for Information Science and Technology (**2016, 2017, 2018**)
- **[Referee]** Knowledge-Based Systems – Elsevier (**2017**)
- **[Referee]** Knowledge and Information Systems - Springer (**2016**)
- **[Referee]** IEEE Transactions on Knowledge and Data Engineering (**2016**, **2017**)
- **[Referee]** Information Processing & Management - Elsevier (**2016**)
- **[Referee]** Multimedia Tools and Applications - Springer (**2015**)

Member of Program Committee

- 25th International Semantic Web Conference (**ISWC 2026** - Resource Track)
- 6th International Workshop on Semantic Web and Ontology Design for Cultural Heritage (**SWODCH 2026**)
- 37th ACM Conference on Hypertext and Social Media (**HT 2026**)
- 8th International Conference on Advanced Research Methods and Analytics (**CARMA 2026**)
- 23rd Extended Semantic Web Conference (**ESWC 2026**)
- 30th International Conference on Theory and Practice of Digital Libraries (**TPDL 2026**)
- 22nd Extended Semantic Web Conference (**ESWC 2025**)
- 29th International Conference on Theory and Practice of Digital Libraries (**TPDL 2025**)
- 36th ACM Conference on Hypertext and Social Media (**HT 2025**)
- 50th International Conference on Very Large Data Bases (**VLDB 2024** - PhD Workshop)
- 21st Extended Semantic Web Conference (**ESWC 2024**)
- 49th International Conference on Very Large Data Bases (**VLDB 2023** - PhD Workshop)
- 34th ACM Conference on Hypertext and Social Media (**HT 2023**)
- 20th Extended Semantic Web Conference (**ESWC 2023**)
- 22nd International Semantic Web Conference (**ISWC 2023** - Posters & Demos Track)
- 21st International Semantic Web Conference (**ISWC 2022** - Posters & Demos Track)
- 2022 SEMANTiCS Conference **(SEMANTiCS 2022)**
- 33rd ACM Conference on Hypertext and Social Media (**HT 2022**)
- 19th Extended Semantic Web Conference (**ESWC 2022**)
- 30th ACM International Conference on Information and Knowledge Management (**CIKM 2021**)
- 32nd ACM Conference on Hypertext and Social Media (**HT 2021**)
- 18th Extended Semantic Web Conference (**ESWC 2021**)
- 23rd Intern. Workshop on Design, Optimization, Languages & Analytical Processing of Big Data (**DOLAP 2021**)
- 29th ACM International Conference on Information and Knowledge Management (**CIKM 2020**)
- 31st ACM Conference on Hypertext and Social Media (**HT 2020**)
- 11th IEEE International Conference on Knowledge Graph (**ICKG 2020**)
- 17th Extended Semantic Web Conference (**ESWC 2020**)
- 19th International Semantic Web Conference (**ISWC 2020** - Posters & Demos Track)
- 16th Extended Semantic Web Conference (**ESWC 2019**)
- 18th International Semantic Web Conference (**ISWC 2019** - Posters & Demos Track)
- 17th International Semantic Web Conference (**ISWC 2018** - Posters & Demos Track)
- 16th International Semantic Web Conference (**ISWC 2017** - Posters & Demos Track)
- 9th International ACM Web Science Conference 2017 (**WebSci 2017** - Posters Track)
- Workshop on Benchmarking Linked Data (**BLINK 2017**), co-located with ISWC 2017
- 15th International Conference on Web-based Learning (**ICWL 2016**)
- 18th International Conference on Asia-Pacific Digital Libraries (**ICADL 2016**)

RESEARCH PROJECTS

CHARM (2026-now)	Project *"CHARM – Conservation Heritage Architecture, buildings and sites by Resilient Methods: hydro-climate factors"*, **MSCA Doctoral Network** (Project Number: 101226989). https://cordis.europa.eu/project/id/101226989 Role: Scientific Responsible for FORTH-ICS, Supervisor of PhD student.
PortADa (2023-now)	Project *"PortADa – Port Arrivals Data. Automatic data collection for a large-scale comparative history of 19th century shipping: a Digital Humanities approach to maritime heritage".* **MSCA Staff Exchanges** (Project Number: 101129889). https://cordis.europa.eu/project/id/101129889 Role: Scientific Responsible for FORTH-ICS, Supervision and implementation of activities related to data management.
RICONTRANS (2019-2025)	Project *"RICONTRANS – Visual Culture, Piety and Propaganda: Transfer and Reception of Russian Religious Art in the Balkans and the Eastern Mediterranean (16th to early 20th Century)"*, **ERC Consolidator Grant** (No. 818791). https://ricontrans-project.eu/ Role: Supervision and implementation of activities related to data management.

FE.P.I.B. (2022-2025)	Project *"FE.P.I.B. – Feminisms and Politics in the Interwar Balkans (1923-1939)"*, **Hellenic Foundation for Research & Innovation** (Project Number: 03050). http://feminisms-politics.ia.uoc.gr/ Role: Supervision and implementation of activities related to data management (FORTH participates through subcontracting).
ReKnow (2020-2022)	Project *"ReKnow – Research Knowledge Documentation, Analysis and Exploration in Empirical and Descriptive Sciences"*, **MSCA Individual Fellowship** (Grant agreement ID: 890861). https://reknow.ics.forth.gr/ Role: Principal researcher, fellowship holder.
SeaLiT (2019-2022)	Project *"SeaLiT – Seafaring Lives in Transition. Mediterranean Maritime Labour and Shipping during Globalization, 1850s-1920s",* **ERC Starting Grant** (No. 714437). http://www.sealitproject.eu/ Role: Supervision and implementation of activities related to data management.
CMBR (2019-2020)	Project *"CMBR – Centre for the study and sustainable exploitation of Marine Biological Resources"*, **Greek National Roadmap for Research Infrastructures** (MIS: 5002670). http://cmbr.hcmr.gr/ Role: Research and implementation of methods and tools for data integration and exploration.
ALEXANDRIA (2016 – 2019)	Project *"ALEXANDRIA – Foundations for Temporal Retrieval, Exploration and Analytics in Web Archives"*, **ERC Advanced Grant** (No. 339233). https://cordis.europa.eu/project/id/339233 Role: Research in methods for the semantic and entity-based exploration of Web and Social Media archives.
BlueBRIDGE (2015 – 2016)	Project *"BlueBRIDGE - Building Research environments for fostering Innovation, Decision making, Governance and Education to support Blue growth"*, **H2020-EINFRA-2015-1** (No. 675680). https://cordis.europa.eu/project/id/675680 Role: Extension of the X-Search system for enabling the stochastic re-ranking of search results based on extracted entities.
iMarine (2012 – 2014)	Project *"iMarine – Data e-Infrastructure Initiative for Fisheries Management and Conservation of Marine Living Resources",* **FP7-INFRASTRUCTURES** (No. 283644). https://cordis.europa.eu/project/id/283644 Role: Design and development of the system "X-Search" for the semantic exploration of search results, as well as the system "X-Link" for the extraction of entities and their further enrichment by exploiting Linked Data.
MUMIA (2012 – 2014)	Action *"MUMIA – Multilingual and Multifaceted Interactive Information Access",* **COST Action IC1002**. https://www.cost.eu/actions/IC1002/ Role: Member of the action, involved in *Working Group 4 – Semantic Search, Faceted Search and Visualization*.

SOFTWARE / SYSTEMS / MODELS

FastCat Catalogues	Web application for the exploration and quantitative analysis of archival data transcribed from original archival sources. Developed under my supervision by the undergraduate student Giorgos Rinakakis. More information: https://github.com/isl/FastCat-Catalogues/
SeaLiT Ontology	SeaLiT Ontology is a formal ontology intended to facilitate the integration, mediation and interchange of heterogeneous information related to maritime history. I have contributed to the definition and implementation of all SeaLiT Ontology versions. More information: https://zenodo.org/record/8020625

CRMtex (v2.0)	CRMtex is a formal ontology (extension of CIDOC CRM) created to support the study of ancient documents by identifying relevant textual entities and by modelling the scientific process related with the investigation of ancient texts and their features. I have contributed to the definition and implementation of CRMtex version 2.0 (stable version). More information: https://cidoc-crm.org/crmtex/
CRMinf (v1.0)	CRMinf is a formal ontology (extension of CIDOC CRM) intended to be used as a global schema for integrating metadata about argumentation and inference making in descriptive and empirical sciences. I have contributed to the definition and implementation of CRMinf version 1.0 (*new stable version, to be released soon*). More information: https://cidoc-crm.org/crminf/
A-QuB-2	Web application that facilitates the exploration of semantic (RDF) data by plain users. The system is an extension of the A-QuB system developed by the Information Systems Laboratory of FORTH-ICS. I have contributed to the development of this new version, which supports additional search functionalities and allows fully configuring the application through a properties file. More information: https://github.com/isl/A-QuB-2
ClaimLinker	Web application and API that links arbitrary text to a knowledge graph of fact-checked claims, offering a novel kind of semantic annotation of unstructured content. Developed under my supervision by the undergraduate student Evangelos Maliaroudakis. More information: https://github.com/malvag/ClaimLinker
SPARQL-LD	Extension of SPARQL 1.1 that enables to directly fetch and query RDF data from heterogeneous web sources via SERVICE calls. More information: https://github.com/fafalios/sparql-ld
X-Search	Web search service for semantic and entity-based exploration of search results. More information: http://www.ics.forth.gr/isl/X-Search
X-Link	Configurable and Linked Data-based named-entity extraction framework. More information: http://www.ics.forth.gr/isl/X-Link
Theophrastus	System for the semantic annotation and exploration of web documents. Theophrastus was awarded the 1st prize in Blue Hackathon 2013. More information: http://www.ics.forth.gr/isl/Theophrastus
IOS	System / functionality for instant overview search (search-as-you-type). More information: http://www.ics.forth.gr/isl/ios
Ithaca	Tool for converting and integrating open datasets to Linked Open Data. Ithaca was awarded the 1st prize in Hack4Med 2014 (the HOMER project Hackathon). More information: https://github.com/mountanton/Ithaca

STUDENT SUPERVISION

PhD students:

- Alessia Vaccariello (2024-2026) (co-supervised with Donatella Fiorani, Honorable Mention at the 2025 Award Ceremony of the DTC Lazio Center of Excellence)
- Renato Stoffalette João (2018-2019) (co-supervised for a short period with Stefan Dietze) *(2 joint papers)*

Master students:

- Manolis Baritakis (2014-2015) (co-supervised with Yannis Tzitzikas) *(2 joint papers)*
- Thanos Yannakis (2016-2017) (co-supervised with Yannis Tzitzikas) *(2 joint papers)*
- Nilamadhaba Mohapatra (2016-2017) (co-supervised with Stefan Dietze) *(1 joint paper)*
- Muhammad Jahid Kabir (2016-2017) (co-supervised with Eelco Herder)
- Vaibhav Kasturia (2017-2018) *(4 joint papers)*
- Neda Dehghan Faroji (2017- 2018)

- Mainul Quraishi (2017-2018) (co-supervised with Eelco Herder) *(1 joint paper)*
- Arjun Roy (2018-2019) (co-supervised with Stefan Dietze) *(1 joint paper)*
- Giorgos Kadilierakis (2019-2020) (co-supervised with Yannis Tzitzikas) *(3 joint papers)*
- Christos Nikas (2020-2021) (advisor, supervised by Yannis Tzitzikas) *(4 joint papers)*
- Nikos Kontonasios (2023-2024) *(1 joint paper)*
- Eleni Vlataki (2024-2025)
- Alexandros Korakas (2024-2025)
- Nikoleta Kalafati (2024-2025)
- Nancy Katie (2024-2025)
- Georgia Stefanaki (2025-2026)

Bachelor students:

- Antonis Sklavos (2020-2021) *(1 joint paper)*
- Evangelos Maliaroudakis (2020-2021) *(1 joint paper)*
- Giorgos Rinakakis (2021-2022) *(1 joint paper)*
- Maria Maninaki (2022-2023)
- Elizaveta Zabalueva (2023-2024)
- Alexandros Vasilakis (2023-2024)
- Christoforos Pantouvakis (2023-2024)
- Antonis Kyvernitakis-Sinanis (2024)
- Giorgos Xydakis (2024-2025)
- Konstantinos Gkogkos (2024-2025)
- Ioannis Savvakis (2024-2025)
- Aliki Kaisari (2025-2026)
- Andreas Xenofontos (2025-2026) *(1 joint paper)*

DISTINCTIONS & AWARDS

Fellowships & Distinctions

- **Individual postdoctoral research fellowship *"Marie Skłodowska-Curie"*** (H2020-MSCA-IF-2019) for the implementation of the project *«ReKnow – Research Knowledge Documentation, Analysis and Exploration in Empirical and Descriptive Sciences»* (Grant Agreement ID: *890861*), June 2020 – November 2022.
- **Finalist for the *"2019 ERCIM Cor Baayen Young Researcher Award"***, awarded each year to a promising young researcher in computer science or applied mathematics (more info / archived page).
- **Fellowship from legacy *"Maria Michael Manasaki"*** for the academic year 2014-2015. This fellowship is awarded once a year to an exceptional Ph.D. candidate of Computer Science department of University of Crete (more info / archived page).
- **PhD scholarship** by FORTH, 2013-2016
- **MSc scholarship** by FORTH, 2010-2012

Awards

- **1st prize** in **Hack4Med, the HOMER project Hackathon**, held in the University of Crete, Department of Computer Science, May 16-17, 2014, Voutes Campus, Heraklion, Greece. Michalis Mountantonakis and I developed and presented the system *"Ithaca: From Open Data to Linked Open Data"*.
- **1st prize** in **Blue Hacakthon 2013**, held in the Hellenic Centre for Marine Research (HCMR), July 1-2, 2013, Gournes, Heraklion, Greece. Panagiotis Papadakos and I developed and presented the system *"Theophrastus: A Semantic Exploration Tool for Marine Taxonomists"*.

Grants

- **Travel grant award from the Association for Computing Machinery (ACM)** for attending the SIGIR'13 conference in Dublin, Ireland (July 28 – August 1, 2013).
- **Travel grant award from the Semantic Web Science Association (SWSA)** and **the National Science Foundation (NSF)** for attending the ISWC'15 conference in Bethlehem, Pennsylvania, USA (Oct 11-15, 2015).