Curriculum Vitae

May 2025

Dimitrios Plexousakis

Director, Institute of Computer Science-FORTH, Professor, Department of Computer Science University of Crete

PERSONAL INFORMATION

Residence Address: 64 Paleokapa Street, 71305, Heraklion, Greece

<u>Telephone</u>: +30 2810-393528 (office@UoC),

+30 2810-391637 (office@FORTH),

+30 6974395014 (mobile)

Email: dp@csd.uoc.gr, dp@ics.forth.gr

Marital Status: married, 2 children Citizenship: Greek, Canadian



CURRENT POSITION

Director, Institute of Computer Science, FO.R.T.H (as of 03/17)

- -1^{st} tern: 03/17 05/21
- -2^{nd} term: 05/21 to date

Professor, Department of Computer Science, University of Crete (as of 07/07)

Vice Chair, Board of Directors, FO.R.T.H (as of 07/17)

Researcher / Head, Information Systems Laboratory, Institute of Computer Science, FO.R.T.H (as of 06/99) – Head of Laboratory as of 01/12

DEGREES OBTAINED

- Doctor of Philosophy (PhD) in Computer Science, January 1996, Department of Computer Science, University of Toronto, Toronto, Canada
- Master of Science (MSc) in Computer Science, September 1990, Department of Computer Science, University of Toronto, Toronto, Canada
- Bachelor of Science (BSc) in Computer Science (grade Excellent: 8,72/10), July 1988, Department of Computer Science, University of Crete, Greece

RESEARCH INTERESTS

My research interests are in the broader area of Knowledge Representation and Reasoning, Data and Knowledge Management and applications

- Knowledge Representation and Reasoning
- Knowledge Representation and Reasoning for Cognitive and Social Robotics
- Neuro-symbolic Artificial Intelligence
- Conceptual Modeling
- Knowledge Representation and Management on the Semantic Web and in Smart Environments
- Data and Knowledge Base Management Systems
- Data Science, Management of Big Data
- Web-based Information Systems
- Service-Oriented and Cloud Computing
- Business Process Modeling and Analysis
- Temporal, Active and Deductive Databases
- Applications of Information Systems in Biomedical informatics (with emphasis on Semantic Integration)
- Digital Libraries and Data Repositories

In my capacity as *Head* of the Information Systems Laboratory, I am coordinating the R&D activities of the lab including those of the Center for Cultural Informatics. I am also the Scientific Coordinator of the research direction of Semantic Data Management. In the past, I also coordinated the research directions of Symbolic AI and Service-Oriented Computing.

In my capacity as *Director* of the Institute of Computer Science, I am the Scientific Coordinator of the horizontal cross-laboratory research programme on Data Science. I am also the Scientific Coordinator of the European Digital Innovation Hub "SmartHealth – from Precision Medicine to Innovative E-health Services".

ACADEMIC AND RESEARCH EXPERIENCE (after completion of PhD Degree)

- [July 2017 to date] Vice Chair, Board of Directors, FORTH
- [March 2017 to date] *Director*, Institute of Computer Science, FORTH
- [November 2020 to date] *Chair*, Sectoral Scientific Council on Computer and Information Sciences, National Research and Innovation Council
- [April 2020 to date] *National Representative*, ESFRI Strategic Group on Data, Computing and Digital Research Infrastructures
- [October 2024 to date] National Technical Representative, European Commission AI Board, subgroup on the AI Act and Medical Devices Coordination Group
- [December 2024 to date] *Member of the Advisory Board*, Cyprus Digital Innovation Hub (DiGiNN)
- [December 2024 to date] Vice Chair, Board of Directors, Hellenic Society for Artificial Intelligence
- [November 2018 October 2022] Member of the Board of Directors, OramaVR S.A.
- [March 2018 July 2019] *Vice Chair*, Sectoral Scientific Council on Mathematics and Information Sciences, National Research and Innovation Council
- [April 2016 to date], Member of the Board of Directors, STEP-C Management Company
- [March 2014 February 2017] *Chair*, Scientific Council, National Documentation Center, (appointed by the Ministry of Education, General Secretariat of Research and Technology)
- [2012 to date] *Member of the Board of Directors*, European Research Consortium on Informatics and Mathematics (ERCIM AISBL and ERCIM EEIG), Chair of the Science Task Group; Member of the ERCIM EEIG Executive Committee
- [December 2009 December 2013] *Director*, Data Processing Laboratory, School of Sciences, University of Crete
- [July 2007 to date] *Professor*, Department of Computer Science, University of Crete
- [September 2006 August 2010] *Chair*, Department of Computer Science, University of Crete
- [January 2005] Visiting Researcher, Universite de Paris-Sud (Orsay), Paris, France (during sabbatical leave)
- [December 2004] Visiting Researcher, CNAM, Paris, France (during sabbatical leave)
- [September 2004 October 2004] Visiting Professor, Department of Knowledge Engineering, School of Computer Science, University of Vienna, Vienna, Austria (during sabbatical leave)
- [November 2002 June 2007] Associate Professor, Department of Computer Science, University of Crete
- [March 2000 October 2002] Assistant Professor, Department of Computer Science, University of Crete
- [June 1999 to date] Affiliated Researcher, Information Systems Laboratory, Institute of Computer Science, FO.R.T.H; Head of Information Systems Laboratory (1/2012 to date)
- [March 1999 February 2000] Visiting Professor, Department of Computer Science, University of Crete
- [August 1997 July 1998] Assistant Professor (tenure-track), Department of Computer Science and Engineering, University of South Florida, Tampa, FL., USA
- [July 1996 August 1996] Visiting Researcher, Department of Computer Science, University of Toronto, Toronto, Canada
- [August 1995 July 1997] Visiting Professor, Department of Computing and Information Sciences, Kansas State University, Manhattan, KS., USA

OTHER WORK EXPERIENCE

- [September 1993 January 1997] *Consultant,* KBS Technology Inc., Richmond Hill, Ontario, Canada
- [January 1992 August 1995] Research Assistant, Department of Computer Science, University of Toronto, Toronto, Canada
- [Spring 1991, Summer 1992] *Instructor*, George Brown College of Applied Arts and Technology, Toronto, Ontario, Canada.
- [September 1988 June 1995] Teaching Assistant, Department of Computer Science, University of Toronto, Toronto, Canada
- [June 1986 July 1988] Programmer Student fellow, Institute of Computer Science, FO.R.T.H
- [June 1985 May 1986] Programmer Student fellow, Computing Center, University of Crete

TEACHING EXPERIENCE

- At the University of Crete, I currently teach or have taught the following courses:
 - (a) Undergraduate
 - o HY180 (Introduction to Logic for Computer Science)
 - o HY 340 (Compilers)
 - o HY 360 (Files and Databases)
 - o HY 452 (Introduction to the Science and Technology of Services)
 - o HY 460 (Database Management Systems)
 - (b) Graduate
 - o HY 567 (Knowledge Representation and Reasoning)
 - HY 565 (Business Process and Workflow Management Systems)
 - o HY 662 (Spatial and Temporal Databases)
 - o HY 562 (Advanced Topics in Databases)
- Joint Postgraduate Programme in Biomedical Engineering
 - o BME 20 (Big Data Analytics in Medicine and Health Care)
- At the University of South Florida, I taught the following courses:
 - (a) Undergraduate
 - o CIS4600: Operating Systems
 - o COP2002: Introduction to Computer Science
 - o COP2000: Introduction to Computer Science-Laboratory
 - (b) Graduate
 - o CIS6930: Advanced Topics in Databases
- At Kansas State University I taught the following courses:
 - (a) Undergraduate
 - o CIS560: Database System Concepts
 - (b) Graduate
 - o CIS730: Principles of Artificial Intelligence
 - o CIS761: Database Management Systems
 - o CIS764: Database Design
 - o CIS860: Distributed Databases
 - o CIS890: Database Systems for Advanced Applications
- At the University of Vienna, I taught the following graduate courses:
 - o Introduction to Semantic Web Technologies
 - Technologies for Web Services
- At the University of Toronto, I taught the undergraduate course
 - o CSC270: Introduction to Modeling and Optimization
- At the George Brown College of Applied Arts and Technology I taught the courses:

- o IS100: Introduction to Programming
- o IS201: Programming in C
- As teaching assistant at the Department of Computer Science, University of Toronto, I taught tutorial sections of:
 - o CSC434: Data Management Systems
 - o CSC324: Principles of Programming Languages
 - o CSC382: Numerical Methods I
 - o CSC180: Introduction to Computer Programming with FORTRAN
 - o CSC148: Introduction to Computing with Turing
 - o CSC104: How Computers are Used

AWARDS AND HONORS

- Among the top-100 Greek Computer Scientists with the highest impact metrics, 2024, 2025
- Among the top-50 Greek Computer Scientists with the highest impact metrics, 2022
- ACM Senior member, 2021
- Among the top-40 Greek Computer Scientists with the highest impact metrics, 2020
- Top-cited article award for the years 2005-2010 for the journal "Engineering Applications of Artificial Intelligence" published by Elsevier
- Best paper awards at CLAR'21, RULE-ML'12, SETN'08, STAIRS'06 and ISWC'03
- Graduate Fellowship, Department of Computer Science, University of Toronto, 1992-1994
- Open Fellowship, University of Toronto, 1988 1991
- Fullbright Foundation Scholarship for Graduate Studies, 1988 (awarded but not accepted)
- Scholarship of the National Scholarship Foundation for excellence in undergraduate studies, 1986-1988
- University entrance Scholarship, entry rank: 2, Department of Computer Science, University of Crete, 1984

PUBLICATIONS

Citation indices (source: Google Scholar) on 26/5/2025

h-index: 46i10-index: 128

• total number of citations: 9163

A. JOURNAL PUBLICATIONS (Full article review)

- [KFK+24] D. Katehakis, D. Filippidis, K. Karamanis, A. Kouroubali, A. Farmaki, P. Natsiavas, A. Krithara, E. Christodoulou, M. Antonakakis and D. Plexousakis, "The smartHEALTH European Digital Innovation Hub - experiences and challenges for accelerating the transformation of public and private organizations within the innovation ecosystem", Frontiers in Medicine, 11, November 2024.
- [BEF+24] R. Buchmann, J. Eder, H-G. Fill, U. Frank, D. Karagiannis, E. Laurenzi, J. Mylopoulos, D. Plexousakis and M. Santos, "Large Language Models: Expectations for Semantics-driven Systems Engineering", in *Data and Knowledge Engineering*, Volume 152, July 2024, Article number 102324.
- 3. **[VPE+24]** A. Vassiliades, T. Patkos, V. Efthymiou, A.Bikakis, N. Bassiliades and **D. Plexousakis**, "Extraction of Object-Action and Object-State Associations from Knowledge Graphs", in *Journal of Web Semantics*, vol. 81, July 2024, Article number 100816.
- 4. **[TAK+24]** G. Troullinou, G. Agathangelos, H. Kondylakis, K. Stefanidis and **D. Plexousakis**, "DIAERESIS: RDF Data Partitioning and Query Processing on SPARK", *Semantic Web Journal*, 2024
- 5. **[FPB+23]** G. Flouris, T. Patkos, A. Bikakis, A. Vassiliades, N. Bassiliades and **D. Plexousakis**, "Theoretical Analysis and Implementation of Abstract Argumentation Frameworks with Domain Assignments", *International Journal of Approximate Reasoning*, Volume 161, October 2023, Article number 108992.
- 6. **[BFPP23]** A. Bikakis, G. Flouris, T. Patkos and **D. Plexousakis**, "Sketching the Vision of the Web of Debates", Frontiers in Artificial Intelligence, Volume 6, 2023, Article number 1124045
- 7. **[VFP+23]** A. Vassiliades, G. Flouris, T. Patkos, A.Bikakis, N. Bassiliades and **D. Plexousakis**, "Argumentation Frameworks with Attack Classification", *Journal of Logic and Computation*, 3(2), pp. 192-229, 2023
- 8. **[PPP+22]** K. Papantoniou, P. Papadakos, T. Patkos, G. Flouris, I. Androutsopoulos and **D. Plexousakis**, "Deception Detection in Text and its Relation to the Cultural Dimension of Individualism / Collectivism", in *Natural Language Engineering*, Cambridge University Press, Volume 28, Issue 5, Pages 545 606, 2 September 2022. (Also appeared as an arXiv preprint, under number 2105.12530, 2021).
- 9. **[KKK+22]** K. Kellou-Menouer, N. Kardoulakis, G. Troullinou, Z. Kedad, **D. Plexousakis** and H. Kondylakis, "A Survey on Semantic Schema Discovery", in *The VLDB Journal*, Volume 31, Issue 4, Pages 675 710, July 2022

- 10. **[ZKSP21]** P. Zervoudakis, H. Kondylakis, N. Spyratos and **D. Plexousakis**, "Query Rewriting for Incremental Continuous Query Evaluation in HIFUN", in *Algorithms*, 14 (5), 149, 2021.
- 11. **[KBC+21]** M. Koubarakis, A. Borgida, P. Constantopoulos, M. Doerr, M. Jarke, M. Jeusfeld, J. Mylopoulos and **D. Plexousakis**, "A Retrospective on Telos as a Metamodeling Language for Requirements Engineering", in *Requirements Engineering*, 26, 1, pp. 1-23, Springer, 2021.
- 12. **[TPFP21]** N. Tsampanaki, T. Patkos, G. Flouris and **D. Plexousakis**, "Revising Event Calculus Theories to Recover from Unexpected Observations", in *Annals of Mathematics and Artificial Intelligence*, 89 (1-2): 209-236, 2021.
- 13. **[GFP+20]** I. Genitsaridi, I. Flouri, **D. Plexousakis**, K. Marias, K. Boki, F. Skopouli, A. Drosos, G. Bertsias, D. Boumpas and P. Sidiropoulos, "Rheumatoid Arthritis Patients on Persistent Moderate Disease Activity on Biologics have Adverse 5-year Outcome Compared to Persistent Low-Remission Status and Represent a Heterogeneous Group", in *Arthritis Research and Therapy*, Volume 22, Issue 1, Article number 226, 2020.
- 14. **[CAA+20]** B. Canuel et al. "ELGAR a European Laboratory for Gravitation and Atom-interferometric Research", in *Classical and Quantum Gravity*, Volume 37, Issue 22, IOP Science, 2020.
- 15. **[HPP+18]** G. Hatzivassilis, I. Papaefstathiou, **D. Plexousakis**, C. Manifavas, N. Papadakis, "AmbiSPDM: Managing Embedded Systems in Ambient Environments and Disaster Mitigation Planning", in *Applied Intelligence*, 48(6): 1623-1643 (2018), Springer, (published online: 30 August 2017)
- [BKP17] G. Baryannis, K. Kritikos and D. Plexousakis, "A Specification-based QoS-Aware Design Framework for Service-based Applications", in Service-Oriented Computing and Applications, 11(3): 301-314, Springer, 2017
- 17. **[TKDP17]** G. Troulinou, H. Kondylakis, E. Daskalaki and **D. Plexousakis**, "Ontology Understanding without Tears: the Summarization Approach", in *Journal of Semantic Web*, 8(6): 797-815, 2017
- [BDK+17] M. Bitsaki, M. Dramitinos, G. Koutras, D. Plexousakis and A. Psycharaki, "Collective Utility in Hierarchical Structures of Collective Adaptive Systems: an Application in Transportation Systems", in *Journal of Computer Science - Research and Development*, 32(3-4), 343-352, Springer, 2017.
- 19. **[KPP16]** K. Kritikos, **D. Plexousakis** and P. Plebani, "Semantic SLAs for Services with Q-SLA", in *Procedia Computer Science*, Elsevier, vol. 97, pp. 24-33, 2016.
- 20. [PPCA16] T. Patkos, D. Plexousakis, A. Chibani and Y. Amirat, "An Event Calculus Production Rule System for Reasoning in Dynamic and Uncertain Domains", International Journal on the Theory and Practice of Logic Programming (Special Issue on RuleML 2014) 16(03), pp. 325-352, 2016.
- 21. **[SKP15]** M. Skouradaki, M. Kalogiannakis and **D. Plexousakis**, "Enhancing Learning Management Systems towards Adaptivity: a Case Study", *International Journal of Teaching and Case Studies*, 6 (2), pp 108-123, 2015.

- 22. **[ZKP15b]** C. Zeginis, K. Kritikos and **D. Plexousakis**, "Event Pattern Discovery in Multi-Cloud Service-Based Applications", in *International Journal of Systems and Service-Oriented Engineering*, Special Issue on Service-Oriented Architecture in the Era of Big Data, 5(4), pp. 78-103, 2015.
- 23. **[ZA+15]** F. Zablith, G. Antoniou, M. d'Aquin, G. Flouris, H. Kondylakis, E. Motta, **D. Plexousakis**, M. Sabou, "Ontology Evolution: A Process Centric Survey", in *The Knowledge Engineering Review*, 30(1), pp 45-75, 2015.
- 24. **[PPPM14]** N. Papadakis, P. Petrakis, **D. Plexousakis** and C. Manifavas, "A Solution to the Ramification Problem Expressed in Temporal Description Logics", in *International Journal of Semantic Computing*, 8 (1), pp. 1-46, 2014.
- 25. **[KP14]** K. Kritikos and **D. Plexousakis**, "Novel Optimal and Scalable Non-Functional Service Matchmaking Techniques", in *IEEE Transactions on Services Computing*, 7 (4), pp. 614-627, Oct-Dec 2014.
- 26. **[KPP14]** K. Kritikos, F. Paterno and **D. Plexousakis**, "Task Model Driven Realization of Interactive Application Functionality through Services", in *ACM Transactions on Interactive Intelligent Systems*, 3 (4), Article No. 25, 2014.
- 27. **[KP13a]** H. Kondylakis and **D. Plexousakis**, "Ontology Evolution without Tears", in *Journal of Web Semantics*, 19, pp 42-58, 2013.
- 28. **[PP+12b]** N. Papadakis, **D. Plexousakis**, and Y. Christodoulou, "The Ramification Problem in Temporal Databases: a Solution Implemented in SQL", *Applied Intelligence the International Journal of Artificial Intelligence, Neural Networks, and Complex Problem-Solving Technologies,* 36 (4), pp 749-767, 2012.
- 29. **[PP+12a]** N. Papadakis, **D. Plexousakis**, M. Papadakis and H. Manifavas, "The Ramification Problem in Temporal Databases: An Approach with Conflicting Constraints", *Journal of Intelligent Information Systems*, 38 (1), pp 41-94, 2012.
- 30. **[PS+11]** N. Papadakis, K. Stravoskoufos, E. Baratis, E. Petrakis and **D. Plexousakis**, "PROTON: A Prolog Reasoner for Temporal ONtologies in *OWL*", *Expert Systems with Applications*, 38 (12), pp 14660-14667, 2011.
- 31. **[PPA10]** N. Papadakis, **D. Plexousakis**, and G. Antoniou, "The Ramification Problem in Temporal Databases: Concurrent Execution", *International Journal of Intelligent Systems*, vol. 25 (4), pp. 287-325, 2010.
- 32. **[KMN+09]** M. Kritsotakis, M. Michou, E. Nikoloudakis, A Bikakis, T Patkos, G Antoniou and **D. Plexousakis**, "Design and implementation of a semantics-based Contextual Navigation Guide for Indoor Environments" *Journal of Ambient Intelligence and Smart Environments*, 1(3), 261-285, August 2009.
- 33. **[KP09b]** K. Kritikos and **D. Plexousakis**, "Requirements for QoS-based Web Service Description and Discovery", *IEEE Transactions on Services Computing*, vol. 2, no. 4, pp. 320-337, 2009.
- 34. **[WKPH09]** R. Woitsch, D. Karagiannis, **D. Plexousakis**, and K. Hinkelmann, "Business and IT Alignment: the IT Socket", *E&I Journal*, vol. 126, no. 7, pp. 308-321, 2009.

- 35. **[KP09a]** K. Kritikos and **D. Plexousakis**, "Mixed-Integer Programming for QoS-based Web Service Matchmaking", *IEEE Transactions on Services Computing*, vol. 2, no. 2, pp. 122-139, 2009.
- 36. **[PPA+09]** N. Papadakis, **D. Plexousakis**, G. Antoniou, M. Papadakis and K. Boutsika, "A Tool for Addressing the Ramification Problem in Temporal Databases", *International Journal on Artificial Intelligence Tools*, 18 (4), pp. 589-601, 2009.
- 37. **[PBA+09]** Th. Patkos, A. Bikakis, G. Antoniou, M. Papadopouli and **D. Plexousakis**, "Design and challenges of a semantics-based framework for context-aware services". *International Journal of Reasoning-based Intelligent Systems*, 1(1/2): 18-30 (2009)
- 38. **[FMK+08]** G. Flouris, D. Manakanatas, H. Kondylakis, **D. Plexousakis** and G. Antoniou, "Ontology Change: Classification and Survey", in *The Knowledge Engineering Review*, 23 (2), pp. 117-152, 2008.
- 39. **[KP08]** K. Kritikos and **D. Plexousakis,** "Semantic QoS-based Web Service Discovery Algorithms for Over-Constrained Demands", *International Journal of Web Services Practices*, Vol. 3, No.1-2 (2008), pp. 71-82.
- 40. **[TCF+07]** Y. Tzitzikas, V. Christophidis, G. Flouris, D. Kotzinos, H. Markkanen, **D. Plexousakis** and N. Spyratos, "Emergent Knowledge Artifacts for Supporting Trialogical E-Learning", in the International Journal of Web-based Learning and Teaching Technologies, 2 (3), pp. 19-41, July 2007.
- 41. **[PPA06]** N. Papadakis, **D. Plexousakis**, and G. Antoniou, "The Ramification Problem in Temporal Databases: Changing Beliefs about the Past", *Journal of Data and Knowledge Engineering*, 59 (2), pp. 397-434, 2006.
- 42. **[PP05]** M. Papaggelis and **D. Plexousakis**, "Qualitative Analysis of User-based and Item-based Prediction Algorithms for Recommendation Agents", in the *Journal of Engineering Applications of Artificial Intelligence*, 18 (7), pp. 781-789, 2005.
- 43. **[MTCP04]** A. Maganaraki, V. Tannen, V. Christophides and **D. Plexousakis**, "Viewing the Semantic Web through RVL Lenses", *International Journal of Web Semantics*, 1(4), pp. 359-375, 2004.
- 44. **[CP+04]** V. Christophides, **D. Plexousakis**, M.Scholl, S. Tourtounis and G. Karvounarakis, "Optimizing Taxonomic Semantic Web Queries using Labeling Schemes", *International Journal of Web Semantics*, 1(2), pp. 207-228, 2004.
- 45. **[CK+03]** V. Christophides, G. Karvounarakis, A. Maganaraki, **D. Plexousakis** and V. Tannen, "The ICS-FORTH Semantic Web Integration Middleware (SWIM)", *IEEE Data Engineering Bulletin*, 26 (4), pp. 11-18, 2003.
- 46. **[PP03]** N. Papadakis and **D. Plexousakis**, "Actions with Duration and Constraints: the Ramification Problem in Temporal Databases", *International Journal of AI Tools*, 12 (3), September 2003, Special Issue: Selected Papers from the International Conference on Tools with Artificial Intelligence 2002, pp. 315-353, 2003.
- 47. **[KM+03]** G. Karvounarakis, A. Maganaraki, S. Alexaki, V. Christophides, **D. Plexousakis**, M. Scholl and K. Tolle, "Querying the Semantic Web with RQL", *Computer Networks Journal*, 42, pp. 617-640, 2003.

- 48. **[KP02]** M. Koubarakis and **D. Plexousakis**, "A Formal Framework for Business Process Modeling and Design", *Information Systems*, 27, pp. 299-319, 2002.
- 49. **[CCP01a]** P. Constantopoulos, V. Christophides and **D. Plexousakis**, Semantic Web Workshop: Models, Architectures and Management. *SIGMOD Record* 30(3): 96-100 (2001)
- 50. **[KP99b]** M. Koubarakis and **D. Plexousakis**, "Business Process Modeling and Design: A Formal Model and Methodology", *British Telecom Technology Journal*, Special Issue on "The Emerging Enterprise", Vol. 17, no. 4, pp. 23-35, October, 1999 (invited paper, reviewed by special issue editors).
- 51. **[MC+96]** J. Mylopoulos, V. Chaudhri, **D. Plexousakis**, A. Shrufi and T. Topaloglou, "Building Knowledge Base Management Systems", *The VLDB Journal*, 5(4), pp. 238-263, 1996.
- 52. **[Ple93a] D. Plexousakis**, "Semantical and Ontological Considerations in Telos: a Language for Knowledge Representation", *Computational Intelligence*, 9(1), pp. 41-72, 1993.

B. CONFERENCE PUBLICATIONS (Full article review)

- [GPP+25a] F. Gouidis, K. Papoutsakis, T. Patkos, A. Argyros and D. Plexousakis, "Recognizing Unseen States of Unknown Objects by Leveraging Knowledge Graphs", IEEE/CVF Winter Conference on Applications of Computer Vision, 2025.
- 2. **[GPP+24c]** F. Gouidis, K. Papoutsakis, T. Patkos, A. Argyros and **D. Plexousakis**, "Enabling Visual Intelligence by Leveraging Visual Object States in a Neurosymbolic Framework", Australasian Joint Conference on Artificial Intelligence, pp. 312-320, Springer, 2024.
- 3. **[GPP+24b]** F. Gouidis, K. Papoutsakis, T. Patkos, A. Argyros and **D. Plexousakis**, Enabling Visual Intelligence by Leveraging Visual Object States in a Neurosymbolic Framework, in Proceedings of the Workshop on Composite AI (CompAI) Co-located with the 27TH European Conference on Artificial Intelligence (ECAI 2024), Santiago de Compostela, Spain, 19-24 October 2024.
- 4. **[KET+24]** H. Kondylakis, V. Efthymiou, G. Troullinou, E. Ymeralli and **D. Plexousakis**, "Property Graphs at Scale: a Roadmap and Vision for the Future", in Proceedings of the 2nd Int. Workshop on Knowledge Graphs for Semantics-Driven Systems Engineering (CAISE 2024), Limassol, Cyprus, LNBIP 521, pp. 180-185, Springer, June 2024.
- 5. **[TSPK24]** G. Troullinou, K. Stefanidis, **D. Plexousakis** and H. Kondylakis, "DIAERESIS: Knowledge Graph Partitioning for Efficient Query Answering", in Proceedings of TheWebConf2024, Demo Track, Singapore, May 2024.
- 6. [GPP+24a] F. Gouidis, K. Papantoniou, K. Papoutsakis, T. Patkos, A. Argyros and D. Plexousakis, "Fusing Domain-Specific Content from Large Language Models into Knowledge Graphs for Enhanced Zero Shot Object State Classification", in Proceedings of the AAAI Spring Symposium on Empowering Machine Learning and Large Language Models with Domain and Commonsense Knowledge, Stanford CA, USA, March 25-27, 2024. AAAI Press 2024. Vol. 3, No. 1, pp. 115-124. (Also appeared as an arXiv preprint, under number 2403.12151, 2024).
- [GPAP24] F. Gouidis, T. Patkos, A. Argyros and D. Plexousakis, "Exploring the Impact of Knowledge Graphs on Zero-Shot Visual Object State Classification", in Proceedings of the 19th International Conference on Computer Vision Theory and Applications, Rome, Italy, February 2024.
- 8. **[FKE+23]** N. Fanourakis, C. Kontousias, V. Efthymiou, V. Christophides and **D. Plexousakis** "FaieER demo: Fairness-Aware and Explainable Entity Resolution", in Demos and Posters Proceedings of the 22nd International Semantic Web Conference, Athens, Greece, November 2023.
- 9. **[CSE+23]** E. Chrysostomaki, M. Stratigi, V. Efthymiou, K. Stefanidis and **D. Plexousakis**, "Fair Sequential Group Recommendations in SQUIRREL Movies", in Proceedings of the Tabular Data Analysis Workshop, at the 49th International Conference on Very Large Databases, Vancouver, Canada, September 2023.

- [PEP23] K. Papantoniou, V. Efthymiou and D. Plexousakis, "Automating Benchmark Generation for Named Entity Recognition and Entity Linking", in Demos and Posters Proceedings of the 20th Extended Semantic Web Conference, May 2023. ESWC 2023, LNCS 13998, pp. 143–148
- 11. **[MZKP22]** K. Meladakis, C. Zeginis, K. Magoutis and **D. Plexousakis**, "Transferring Transactional Business Processes to FaaS", in Proceedings of the Eighth International Workshop on Serverless Computing, 2022, Pages 25 30.
- [BZP+22] G. Bouloukakis, C. Zeginis, N. Papadakis, P. Zervakis, D. Plexousakis and K. Magoutis, "Enabling IoT-enhanced Transportation Systems using the NGSI Protocol", in IoT '22: Proceedings of the 12th International Conference on the Internet of Things, November 2022, Pages 33 40
- 13. **[MKK+22]** A. Miraka, N. Kardoulakis, K. Kellou-Menouer, G. Troullinou, Z. Kedad, **D. Plexousakis** and H. Kondylakis, "HInT: Hybrid and Incremental Type Discovery for Semantic Graphs", in Proceedings of the 33rd International Semantic Web Conference (ISWC), Hangzhou, China, October 2022.
- 14. **[FEP+22]** G. Flouris, V. Efthymiou, K. Papantoniou, T. Patkos, G. Petasis, N. Pittaras, **D. Plexousakis**, Y. Roussakis, E. Tzortzakakis and E. Ymeralli, "DebateLab Tools for E-Journalism and Informed Citizenship", in Proceedings of the 4th Summit on Gender Equality in Computing, Thessaloniki, Greece, June 2022.
- 15. **[GPA+22]** F. Gouidis, Th. Patkos, A. Argyros and **D. Plexousakis**, "Detecting Object States vs Detecting Objects: A New Dataset and a Quantitative Experimental Study", in proceedings of the 17th International Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications VISIGRAPP Volume 5, 590-600, February 6-8, 2022. also available at CoRR, arXiv. Doi: 10.5220/0010882300003124.
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- 11. [DISWEB06] Bellahsene, Z., Plexousakis, D., & Toumani, F. (Eds.). (2007). Proceedings of the CAISE*06 workshop on data integration and the semantic web DisWeb '06, Luxemburg, June 5-9, 2006.
- 12. **[SETN06]** G. Antoniou, C. Spyropoulos, **D. Plexousakis** and G. Potamias, *Proceedings of the 4th Hellenic Conference on Artificial Intelligence*, Heraklion Greece, LNAI 3955, Springer-Verlag, 2006.

- 13. **[JWS05]** S. McIlraith and **D. Plexousakis**, *Journal of Web Semantics*, "Web Semantics: Science, Services and Agents on the WWW Selected papers from the 3rd International Conference on the Semantic Web", vol. 3, pp. 77-78, 2005.
- 14. **[ISWC04]** S. McIlraith and **D. Plexousakis**, F. Harmelen, *Proceedings of the 3rd International Conference on the Semantic Web*, Hiroshima, Japan, LNCS 3298, Springer-Verlag, 2004.
- 15. **[EDBT04]** E. Bertino, S. Christodoulakis, **D. Plexousakis**, V. Christophides, M. Koubarakis, Klemens Bohm, E. Ferrari, *Advances in Database Technology (EDBT 2004), Proceedings of the 9th International Conference on Extending Database Technology*, Heraklion, Greece, LNCS 2992, Springer-Verlag, 2004.
- 16. **[PLS01]** E. Kranakis, C. Dimitrakopoulos, A. Pheidas and **D. Plexousakis**, *Proceedings of the 3rd Panhellenic Symposium on Logic*, Anogia, Greece, 2001.
- 17. **[CCP00]** P. Constantopoulos, V. Christophidis and **D. Plexousakis**, *Proceedings of the 1st International Workshop on the Semantic Web*, Lisbon, Portugal, 2000.

E. TECHNICAL REPORTS

- 1. **[GPFP17-TR]** F. Gouidis, Th., Patkos, G., Flouris, and **D. Plexousakis**, "The DRA* Algorithm", TR-468, Institute of Computer Science, Foundation for Research and Technology Hellas, 2017.
- [FBPP13-TR] G. Flouris, A. Bikakis, T. Patkos and D. Plexousakis, "Globally Interconnecting Persuasive Arguments: The Vision of the Persuasive Web", TR-438, Institute of Computer Science, Foundation for Research and Technology – Hellas, 2013.
- 3. **[CCP10-TR]** I. Chrysakis, C. Chalkidis and **D. Plexousakis**, "A Detailed Evaluation of Threshold Algorithms for Answering Top-k queries in Peer-to-Peer Networks", TR-407, Institute of Computer Science, Foundation for Research and Technology Hellas, 2010.
- 4. **[ZP10-TRb]** C. Zeginis and **D. Plexousakis**, "Web Service Adaptation: State of the art and Research Challenges", TR-410, Institute of Computer Science, Foundation for Research and Technology Hellas, 2010.
- 5. **[ZP10-TRa]** C. Zeginis and **D. Plexousakis**, "Monitoring the QoS of Web Services using SLAs", TR-404, Institute of Computer Science, Foundation for Research and Technology Hellas, 2010.
- 6. **[BP10-TR]** G. Baryannis and **D. Plexousakis**, "Automated Web Service Composition: State of the Art and Research Challenges", TR-409, Institute of Computer Science, Foundation for Research and Technology Hellas, 2010.
- [KDP06-TR] H. Kondylakis, M. Doerr and D. Plexousakis, "Mapping Language for Information Integration", TR-385, Institute of Computer Science, Foundation for Research and Technology – Hellas, 2006.
- 8. **[AP06-TR]** V. Alevizou and **D. Plexousakis**, "Enhanced Specifications for Web Service Composition", TR-374, Institute of Computer Science, Foundation for Research and Technology Hellas, 2006.
- 9. [CP06-TR] Chrysakis, I., & Plexousakis, D. "Semantic Query Routing and Distributed Top-k Query Processing in Peer-to-Peer Networks", TR-387 Institute of Computer Science, Foundation for Research and Technology Hellas, 2006.
- [FP05-TR] G. Flouris and D. Plexousakis, "Handling Ontology Change: Survey and Proposal for a Future Research Direction", TR-362, Institute of Computer Science, Foundation for Research and Technology - Hellas, 2005.
- [FPA04-TR] G. Flouris, D. Plexousakis and G. Antoniou, "AGM Postulates in Arbitrary Logics: Initial Results and Applications", TR-336, Institute of Computer Science, Foundation for Research and Technology - Hellas, 2004.
- 12. **[FPA03-TR]** G. Flouris, **D. Plexousakis** and G. Antoniou, "Describing Knowledge Representation Schemes: a Formal Account", *TR-320*, Institute of Computer Science, Foundation for Research and Technology Hellas, 2003.

- 13. **[MK+02-TR]** A. Maganaraki, G. Karvounarakis, V. Christophides, **D. Plexousakis** and T. Ahn, "Ontology Storage and Querying", *TR-308*, Institute of Computer Science, Foundation for Research and Technology Hellas, 2002.
- 14. **[FP01-TR]** G. Flouris and **D. Plexousakis**, "Belief Revision using Table Transformations", *TR-290*, Institute of Computer Science, Foundation for Research and Technology Hellas, 2001.
- 15. **[KCP00-TR]** G. Karvounarakis, V. Christophides and **D. Plexousakis**, "Querying Semistructured (Meta)data and Schemas on the Web: The case of RDF and RDFS", *TR-269*, Institute of Computer Science, Foundation for Research and Technology Hellas, 2000.
- 16. **[PM96-TR] D. Plexousakis** and J. Mylopoulos, "Accommodating Integrity Constraints during Database Design", *TR-CS-96-17*, Department of Computing and Information Sciences, Kansas State University, 1996 (same as **[PM96]).**
- 17. **[Ple96-TR] D. Plexousakis**, "On the Efficient Maintenance of Temporal Integrity in Knowledge Bases", *DKBS-TR-96-1*, Data and Knowledge Base Systems Series, Department of Computer Science, University of Toronto, 1996 (same as PhD Thesis).
- 18. **[MC+94-TR]** J. Mylopoulos, V. Chaudhri, **D. Plexousakis**, A. Shrufi and T. Topaloglou, "Building Knowledge Base Management Systems: A Progress Report", *DKBS-TR-94-4*, Data and Knowledge Base Systems Series, Department of Computer Science, University of Toronto, 1994.
- 19. **[Ple90-TR] D. Plexousakis**, "An Ontology and a Possible-Worlds Semantics for Telos", *KRR-TR-90-7*, Reports on Knowledge Representation and Reasoning, Department of Computer Science, University of Toronto, 1990.

F. OTHER PUBLICATIONS

- 1. **[MBG+24]** V. Manousaki, K. Bacharidis, F. Gouidis, K. Papoutsakis, **D. Plexousakis** and A. Argyros "Anticipating Object State Changes", arXiv preprint arXiv:2405.12789. (2024).
- 2. **[PPP24]** K. Papantoniou, P Papadakos and **D. Plexousakis** "What Do LLMs Know about Deception in Text?", ERCIM News 136, January 2024.
- **3. [GPAD23]** F. Gouidis, T. Patkos, A. Argyros and **D. Plexousakis** "Leveraging knowledge graphs for zero-shot object-agnostic state classification.", arXiv preprint arXiv:2307.12179 (2023).
- [PPP23] C. Prasatzakis, T. Patkos and D. Plexousakis "An Intuitive Architecture for a Chatbot that Exploits High-Level Reasoning for Human-Robot Interaction", ERCIM News 134, July 2023.
- 5. **[PPP22]** K. Papantoniou, P. Papadakis and **D. Plexousakis** "Culture Aware Deception Detection from Text", ERCIM News 128, January 2022.
- 6. **[BPP20]** N. Basina, T. Patkos and **D. Plexousakis** "ECAVI: a Teaching Assistant for Reasoning about Action and Change", ERCIM News 122, July 2020.
- 7. **[DP20]** A. Dougalis and **D. Plexousakis** "A Logic-based Affective Tutoring System", ERCIM News 120, January 2020.
- 8. **[ZFPP19]** D. Zografistou, G. Flouris, T. Patkos and **D. Plexousakis** "A Language for Graphs of Interlinked Arguments", ERCIM News 118, July 2019.
- 9. **[FAFP19]** G. Flouris, A. Avgoustaki, I. Foundoulaki and **D. Plexousakis** "ProvQL: Understanding the Provenance of your Data", ERCIM News 117, April 2019.
- 10. **[AP18]** G. Antoniou and **D. Plexousakis**, "Semantic Web" in the Encyclopedia of Database Systems (2nd ed.) 2018.
- 11. **[BFPP18]** A. Bikakis, G. Flouris, T. Patkos and **D. Plexousakis** "Sketching the Vision of the Debate Web", in "Arguing about Logic: Debates in Individual and Collective Reasoning", Univ. du Luxembourg, 2018.
- 12. **[TPD18]** N. Tsabanaki, T. Patkos, and **D. Plexousakis** "Having Trouble Deciding Which Wine to Order? Try Le Sommelier Recommendation System", ERCIM News 113, April 2018.
- [KT+18] H. Kondylakis, G. Troullinou, K. Stefanidis and D. Plexousakis "Beyond Summaries for Ontology Exploration", ERCIM News 113, April 2018.
- 14. **[KP17]** K. Kritikos and **D. Plexousakis,** "Bringing Business Processes to the Cloud", ERCIM News 109, March 2017.
- 15. **[PP11]** T. Patkos and **D. Plexousakis,** "DECKT: Epistemic Reasoning for Ambient Intelligence", ERCIM News 84, January 2011.
- 16. **[AP09]** G. Antoniou and **D. Plexousakis**, "Semantic Web", in the *Encyclopedia of Database Systems*, L. Liu, T. Ozsu (eds), Springer Verlag, pp. 2579-2583, 2009.

- 17. **[MPS09]** F. Martinelli, **D. Plexousakis** and T. Skordas, "Engineering Secure Complex Software Systems and Services", ERCIM News 76, January 2009.
- 18. [ΓΚΠ08] Π. Γιανέλος, Δ. Κοτζίνος και Δ. Πλεξουσάκης, "Αναμιγνύοντας τα Δικά μας Γεωγραφικά Δεδομένα: Πλατφόρμα Παρουσίασης Γεωγραφικών Δεδομένων πάνω από Google Maps", Πανελλήνιο Συνέδριο HellasGIS, Δεκέμβριος 2008.
- 19. **[KP08a]** K. Kritikos and **D. Plexousakis**, "QoS-based Web Service Description and Discovery", *ERCIM News*, 72, pp. 43-44, January 2008.
- 20. **[ΝΠ07]** Χ. Νικολάου και **Δ. Πλεξουσάκης,** "Ο Επιχειρηματικός Μετασχηματισμός στην Παγκόσμια Οικονομία των Υπηρεσιών", The Economist, Ελληνική ειδική έκδοση με την Εφημερίδα Καθημερινή, σελ. 34-35, Νοέμβριος 2007.
- 21. **[FH+07]** G. Flouris, Z. Huang, J. Pan, **D. Plexousakis** and H. Wache, "Inconsistencies, Negations and Changes in Ontologies", extended abstract, in Proceedings of the Dutch Conference on AI, 2007.
- 22. **[Ple06] D. Plexousakis,** "Bits, Atoms and Genes Beyond the Horizon", *ERCIM News*, 64, pp. 7-13, January 2006.
- 23. **[PP06]** M. Papaggelis and **D. Plexousakis**, "CONFIOUS: Conference Management System with Intelligence, Power, and Style", *ERCIM News*, 64, pp. 71-72, January 2006.
- 24. **[ACPD05]** G. Antoniou, V. Christophides, **D. Plexousakis** and M. Doerr, "Semantic Web Fundamentals" Encyclopedia of Information Science and Technology, 2464-2468, 2005.
- 25. **[ACP04]** G. Antoniou, V. Christophides and **D. Plexousakis,** "The Semantic Web: Key Ideas", in the *Encyclopedia of Artificial Intelligence*, 2004.
- 26. **[AA+02a]** S. Alexaki, N. Athanasis, V. Christophides, G. Karvounarakis, A. Maganaraki, **D. Plexousakis**, K. Tolle, "The ICS-FORTH RDFSuite: High-level Scalable Tools for the Semantic Web", *ERCIM News*, no. 51 Special Issue on the Semantic Web, October 2002.
- 27. [AA+02b] S. Alexaki, N. Athanasis, V. Christophides, G. Karvounarakis, A. Maganaraki, D. Plexousakis, K. Tolle, "The ICS-FORTH RDFSuite: High-level Scalable Tools for the Semantic Web", Poster Proceedings of the 11th International Conference on the World-Wide Web (WWW'02), Hawaii, 2002.
- 28. **[KCP01]** G. Karvounarakis, V. Christophides and **D. Plexousakis**, "RQL: A Declarative Query Language for RQL", *D-Lib Magazine*, Vol. 7, no. 12, December 2001.
- 29. **[CCP01b]** P. Constantopoulos, V. Christophides and **D. Plexousakis**, "Semantic Web Workshop: Models, Architecture and Management", *Intelligence Magazine (formerly published as SIGART Newsletter)*, 12(2), pp. 39-44, Summer 2001.

G. INVITED TALKS

- 1. **[JST20]** "Exploring RDF/S Knowledge Bases using Summaries", Keynote address, Japan Science and Technology Symposium on Big Data Applications, Tokyo, Japan, January 2020.
- 2. **[EHF14]** "Biomedical Data Sharing: the Big Data Challenges", e-Health Forum, Athens, Greece, May 2014.
- 3. **[PLS13]** "Calculi for Reasoning about Knowledge and Action", 9th Panhellenic Logic Symposium, Athens, Greece, July 2013.
- 4. [OM12] "Development and maintenance of correlated ontologies and their derivative products experience with CIDOC-CRM for information integration in culture and science", Modeling Methods in Motion, 3rd International Workshop on Open Models, Vienna, Austria, September 2012.
- [FF10] "i-lands: Improved Living Environments through Synergies of Ubiquitous, Evolvable & Intelligent Technologies", FET Flagships Science & Technology Forum, Brussels, June 2010.
- 6. **[RW06]** "RDF Querying: Language Constructs and Evaluation Methods Compared", invited lecture at *Reasoning Web Summer School*, Lisbon, Portugal, September, 2006.
- 7. **[SOFSEM06]** "Evolving Ontology Evolution", 32nd International Conference on Current Trends and Practice in Computer Science (SOFSEM 2006), Prague, Czech Republic, January 2006.
- 8. **[PAKM04]** "Knowledge Management on the Semantic Web", *International Conference on Practical Aspects of Knowledge Management (PAKM04)*, Vienna, Austria, December 2004.
- 9. **[SOFSEM04]** "Querying and Viewing the Semantic Web: An RDF-Based Perspective", 30th International Conference on Current Trends and Practice in Computer Science (SOFSEM 2004), Prague, Czech Republic, January 2004.
- 10. **[Onassis03]** "Semantic Web: Myths and Reality", *Onassis Lecture Series in Computer Science*, Heraklion, Greece, July 2003 (with V. Christophides).
- 11. **[EU-NSF02]** "Querying the Semantic Web", EU-NSF Workshop on Database and Information Systems Research for Semantic Web and Enterprises, Amicalola Falls, Georgia, April 3-5, 2002 (not attended).
- 12. **[PLS01]** "Reasoning about Database Dynamics in the Situation Calculus", *3rd Panhellenic Symposium on Logic*, Anogia, Greece, July 2001.
- 13. **[NCI01]** "Thematic Web Portals: the Case of Science and Technology Museums", *Network on Cultural Informatics*, Athens, Greece, June 2001.
- 14. **[DLW01]** "From Digital Libraries to Web Portals", *Digital Libraries Workshop*, University of Crete, May 2001.

H. TUTORIALS

- 1. **[PP24] D. Plexousakis,** T. Patkos, N. Basina and A. Pratikaki, "A Smooth Integration of Conceptual Modeling, Knowledge Graph Engineering and Logical Reasoning", Next Generation Enterprise Modeling: Methods, Frameworks, Tools, Vienna, Austria, July 2024.
- 2. **[KKT+22]** K. Kellou-Menouer, N. Kardoulakis, G. Troullinou, Z. Kedad, **D. Plexousakis** and H. Kondylakis, ISWC 2022, Tutorial on "Semantic Schema Discovery: principles, methods and future research directions", Hangzhou, China, October 2022.
- 3. [PP22] D. Plexousakis and T. Patkos, "Modeling Knowledge, Action and Time: Action Theories and their Applications in Dynamic, Uncertain Domains", Next Generation Enterprise Modeling: Methods, Frameworks, Tools, Vienna, Austria, July 2022.
- 4. **[PP19] D. Plexousakis** and T. Patkos, "Modeling Knowledge, Action and Time: Action Theories and their Applications in Dynamic, Uncertain Domains", Next Generation Enterprise Modeling: Methods, Frameworks, Tools, Vienna, Austria, July 2019.
- 5. **[PP18] D. Plexousakis** and T. Patkos, "Modeling Knowledge, Action and Time: Action Theories and their Applications in Dynamic, Uncertain Domains", Next Generation Enterprise Modeling: Methods, Frameworks, Tools, Vienna, Austria, July 2018.
- 6. **[PP17] D. Plexousakis** and T. Patkos, "Modeling Knowledge, Action and Time: Action Theories and their Applications in Dynamic, Uncertain Domains", *Next Generation Enterprise Modeling: Methods, Frameworks, Tools*, Vienna, Austria, July 2017.
- 7. [PP14] D. Plexousakis and T. Patkos, "Modeling Knowledge, Action and Time: Action Theories and their Applications in Dynamic, Uncertain Domains", Next Generation Enterprise Modeling: Methods, Frameworks, Tools, Klagenfurt, Austria, July 2014.
- 8. **[FL+06b]** T. Furche, B. Linse, F. Bry, **D. Plexousakis** and G. Gottlob, "RDF Querying: Language Constructs and Evaluation Methods Compared", Reasoning Web Summer School, Lisbon, Portugal, September 2006.
- 9. [MC+95a] J. Mylopoulos, V. Chaudhri, I. Jurisica, D. Plexousakis, A. Shrufi, T. Topaloglou, and Q. Wang, "Information and Knowledge Base Management", Tutorial presented at the *International Joint Conference on Artificial Intelligence (IJCAI'95)*, Montreal, Canada, August 1995.
- 10. [MC+95b] J. Mylopoulos, V. Chaudhri, I. Jurisica, D. Plexousakis, A. Shrufi, T. Topaloglou, and Q. Wang, "Information and Knowledge Base Management", Tutorial presented at the Australian Joint Conference on Artificial Intelligence, Canberra, Australia, 1995.
- 11. [MC+94] J. Mylopoulos, V. Chaudhri, I. Jurisica, D. Plexousakis, A. Shrufi, T. Topaloglou, and Q. Wang, "Information and Knowledge Base Management", Tutorial presented at the *International Conference on Database and Expert Systems Applications (DEXA'94)*, Athens, Greece, 1994.
- 12. [MC+93a] J. Mylopoulos, V. Chaudhri, I. Jurisica, D. Plexousakis, A. Shrufi, T. Topaloglou, and Q. Wang, "Information and Knowledge Base Management", Tutorial presented at the *International Conference on Information and Knowledge Management (CIKM'93)*, Washington, DC, 1993.

13. [MC+93b] J. Mylopoulos, V. Chaudhri, I. Jurisica, D. Plexousakis, A. Shrufi, T. Topaloglou, and Q. Wang, "Knowledge Base Management", Tutorial organized by the Ontario Information Technology Research Center, for academics, students and practitioners from Ontario Universities and Industries, Toronto, Canada, February 1993.

I. UNDER REVIEW

- 1. F. Gouidis, K. Papoutsakis, T. Patkos, A. Argyros and **D. Plexousakis**, "Metapaths-based Knowledge Graph Leveraging for Object State Classification", 13th International Conference on Learning Representations, 2025.
- 2. V. Manousaki, K. Bacharidis, F. Gouidis, K. Papoutsakis, D. Plexousakis and A. Argyros, "Anticipating Object State Changes in Long Procedural Videos", Computer Vision and Pattern Recognition, 2025
- 3. S. Sideri, G. Troullinou, E. Ymeralli, V. Efthymiou, D. Plexousakis and H. Kondylakis, "MITHRILL: ScheMa Discovery for Property Graphs at Scale", ESWC 2025
- 4. H. Kondylakis, S. Dumbrava, M. Lissandrini, N. Yakovets, A. Bonifati, V. Efthymiou, G. Fletcher, D. Plexousakis, R. Tommasini, G. Troulinou, E. Ymeralli, "Property Graphs Standards, a Coming Revolution", SIGMOD 2025

PARTICIPATION IN FUNDED RESEARCH AND DEVELOPMENT PROJECTS

<u>Institute of Computer Science, FORTH</u>

- 1. **[PHAROS]** PHAROS The Greek AI Factory, EuroHPC JU, Duration: 01/04/2025 31/03/2028, Budget: 540.000,00 €, (Scientific Coordinator)
- 2. [AccesS] Enhancing Accessibility and Sustainability in Smart Cities and Smart Buildings: The Universal Accessibility Suite Initiative, HORIZON EUROPE, Climate, Energy and Mobility Programme, Duration: 01/06/2024—31/05/2027, Budget: 301.250,00 € (Member of the Research Team)
- 3. **[SmartHealth]** European Digital Innovation Hub for Smart Health: Precision Medicine and Innovative e-Health Services, HORIZON EUROPE, Digital Europe Programme, Duration: 01/01/2023–31/12/2025, Budget: 1.441.290,00 € (*Scientific Coordinator*)
- 4. **[FIDAL]** Field Trials beyond 5G, HORIZON EUROPE, Digital, Industry and Space Programme, Duration: 01/01/2023–31/12/2025, Budget: 337.500,00 € (Member of the Research Team)
- 5. **[MEMENTOS]-** iMmersive gamEs for Museums as vehicles to Engage visiTOrs in Empathetic reSponses, HORIZON EUROPE, Culture, creativity and inclusive society Programme, Duration: 01/10/2022– 30/09/2025, Budget: 562.000,00 € (Member of the Research Team)
- 6. **[SHIFT]-** MetamorphoSis of cultural Heritage Into augmented hypermedia assets For enhanced accessibiliTy and inclusion, HORIZON EUROPE, Culture, creativity and inclusive society Programme, Duration: 01/10/2022– 30/09/2025, Budget: 422.500,00 € (Member of the Research Team)
- 7. **[EUROCC]** National Competence Centres in the Framework of EuroHPC JU, HORIZON 2020, Duration: 01/09/2020–31/08/2022, Budget: 350.000,00 € (Member of the Research Team)
- 8. [ΠΡΩΤΕΑΣ] ΠΡοηγμένο σύστημα συλλογής και διαχείρισης αναλυτικΩν δεδομένων για την ανοιχτή προς το κοινό ΤΕκμηρίωση, και συντήρηση ζωγρΑφικών έργων τέχνηΣ μεγάλων διαστάσεων, «ΕΡΕΥΝΩ ΔΗΜΙΟΥΡΓΩ ΚΑΙΝΟΤΟΜΩ» Ε.Π. «Ανταγωνιστικότητα, Επιχειρηματικότητα και Καινοτομία (ΕΠΑνΕΚ)», ΕΣΠΑ 2014 2020, (Advanced System for the collection and management of analytical data for documentation and conservation of large-scale paintings in an open laboratory, «RESEARCH CREATE INNOVATE» Action, «Competitiveness, Entrepreneurship, Innovation Programme (ΕΡΑΝΕΚ), NSRF 2014-2020), Duration: 28/07/2020 27/07/2023, Budget: 223.320,00 € (Project Scientific Coordinator)
- [Δίατυο eΠΑΙΘΡΟΣ] Δίατυο Υποστήριξης Τουρισμού Υπαίθρου, ΕΣΠΑ 2014 2020, ([Δίατυο eΠΑΙΘΡΟΣ] - Rural Tourism Support Network, NSRF 2014-2020), Duration: 06/08/2020 – 05/08/2022, Budget: 40.000,00 € (Scientific Coordinator FORTH-ICS)
- [MiB] Μια εξειδικευμένη ιστορία φιάλης, Επιχειρησιακό Πρόγραμμα «Κρήτη» 2014-2020, ΕΣΠΑ 2014 – 2020, ([MiB] - Message-in-a-bottle, Programme "CRETE" 2014 – 2020, NSRF 2014-2020), Duration: 23/04/2020 – 22/04/2023, Budget: 183.6740,75 € (Member of the Research Team)

- 11. **[MORPHEMIC]** "Modelling and Orchestrating heterogeneous Resources and Polymorphic applications for Holistic Execution and adaptation of Models In the Cloud", HORIZON 2020, Duration: 01/01/2020–31/12/2022, Budget: 359.750,00 € (Member of the Research Team)
- 12. **[Debatelab]** From Linked Data to Linked Arguments, 1st Call for H.F.R.I. Research Projects to Support Faculty Members & Researchers and Procure High-Value Research Equipment, Duration: 01/01/2020 30/06/2023, Budget: 169.333,92 € (*Project Scientific Coordinator*)
- 13. **[PROXIMIOT]** Proximity Marketing Platform, «ΕΡΕΥΝΩ ΔΗΜΙΟΥΡΓΩ ΚΑΙΝΟΤΟΜΩ» Ε.Π. «Ανταγωνιστικότητα, Επιχειφηματικότητα και Καινοτομία (ΕΠΑνΕΚ)», ΕΣΠΑ 2014 2020, (Proximity Marketing Platform, Context with Single RTDI State Aid Action «RESEARCH CREATE INNOVATE» Action, «Competitiveness, Entrepreneurship, Innovation Programme (EPAnEK), NSRF 2014-2020), Duration: 19/09/2019 18/03/2023, Budget: 180.000,00 € (Scientific Coordinator FORTH-ICS)
- 14. **[CAP-A]** A Community-driven Approach to Privacy Awareness, HORIZON 2020, Duration: 01/07/2019 31/12/2020, Budget: 143.800,00 € (Member of the Research Team)
- 15. **[SoCoLa]** Towards Socio-Cognitive Logic-based Agents, 1st Call for H.F.R.I. Research Projects to support Post-Doctoral Researchers, Duration: 04/09/2018 03/03/2022, Budget: 171.000,00 € (*Member of the Research Team*)
- 16. **[AI4EU]** A European AI On Demand Platform and Ecosystem, HORIZON 2020, Duration: 01/01/2019 31/12/2021, Budget: 56.250,00 € (Scientific Coordinator FORTH-ICS)
- 17. **[DIGITAL UNSEALING OF HOLY ISLANDS**] NAVIGATORS OF CULTURAL HERITAGE DIGITIZATION OF CHURCHES OF CYPRUS AND CRETE, INTERREG V-A «Greece-Cyprus 2014-2020), Duration: 01/09/2018 31/12/2021, Budget: 120.000,00 € (Scientific Coordinator FORTH-ICS)
- 18. **[APOLLONIS REGION OF CRETE]** Greek Infrastructure for Digital Arts, Humanities and Language Research and Innovation, NSRF 2014-2020) Duration: 31/12/2017 31/10/2021, Budget: 297.000,00 € (*Scientific Coordinator FORTH-ICS*)
- 19. [KPHΠΙΣ II, BIΤΑΔ] Προηγμένες Ερευνητικές Δραστηριότητες στη Βιοϊατρική Τεχνολογία & Αγροδιατροφή-Κρήτη, ΕΣΠΑ 2014-2020, (KRIPIS II-VITAD Advanced Research Activities in Biomedical Technology and Agri-food Crete, NSRF 2014-2020) Duration: 08/09/2017 30/09/2021, Budget: 314.950,00 € (Scientific Coordinator FORTH-ICS)
- 20. **[HELLAS CH]** « Synergy ELI LASERLAB Europe, HiPER & IPERION-CH.gr », NSRF 2014-2020) Duration: 31/10/2017 31/03/2021, Budget: 124.824,72 € (Member of the Research Team)
- 21. **[KRIPIS II, POLITEIA II]** Culture-Technology-New Technologies in Research, Study, Documentation and Access to information of Cultural Heritage Objects and Monuments, NSRF 2014-2020), Duration: 08/09/2017 19/03/2021, Budget: 140.883,00 € (Scientific Coordinator FORTH-ICS)
- 22. **[ASAP]** An Adaptive, highly Scalable Analytics Platform, FP7-ICT, Duration: 01/03/2014 28/02/2017, Budget: 659.164,00 € (*Member of the Research Team*)
- 23. **[CloudSocket]** Business and IT-Cloud Alignment Using a Smart Socket, H2020-ICT-644490, Duration: 01/01/2015 31/12/2017, Budget: 268.750,00€ (Scientific Coordinator FORTH-ICS)

- 24. **[Forthnet recommendation engine]** An online recommendation system for pay-TV content based on user-preferences and user-history, Private Contract, Duration: October 2016 April 2017, Budget: 46,000 € (*Scientific Coordinator FORTH-ICS/ISL*)
- 25. **[AI-CARE]** Advanced knowledge management systems and applications in healthcare, NSRF 2007-2013, Co-operation 2011), Duration: 21/08/2013 − 31/10/2015, Budget: 101.500,00 € (Member of the Research Team)
- 26. [RealEstate2.0] Καινοτόμες υπηρεσίες Real-Estate: αξιοποιώντας το Web 2.0, ΕΣΠΑ 2007-2013, Πρόγραμμα Συνεργασία 2011, (Informed Real-Estate Services: Leveraging Web 2.0, NSRF 2007-2013, Co-operation 2011) Duration: 24/05/2013 31/10/2015, Budget: 193.000,00 € (Scientific Coordinator FORTH-ICS)
- 27. **[eSENS]** Electronic Simple European Network Services, FP7-CIP Large Scale Project-325211, Duration: 01/04/2013 31/03/2016, Budget: 360.044,00 € (*Scientific Coordinator FORTH-ICS*)
- 28. **[DIACHRON]** Managing the Evolution and Preservation of the Data Web, FP7-ICT-601043, Duration: 01/04/2013 31/03/2016, Budget: 703.740,00 € (Member of the Research Team)
- 29. **[PaaSage]** Model Based Cloud Platform Upperware, ICT-FP7-317715, Duration: 01/10/2012 30/09/2016, Budget: 506.947,00 € (*Scientific Coordinator FORTH-ICS/ISL*)
- 30. **[eHealthMonitor]** Intelligent Knowledge Platform for Personal Health Monitoring Services, ICT-FP7-287509, Duration: 01/12/2011 30/11/2014, Budget: 466.800,00 € (Scientific Coordinator FORTH-ICS, Project Quality Manager)
- 31. **[3DSYSTEK]** Development of a novel system for 3D Documentation, Promotion and Exploitation of Cultural Heritage Monuments via 3D data acquisition, 3D modeling and metadata recording, NSRF 2007-2013, Co-operation 2009), Duration: 18/04/2011 17/08/2014, Budget: 151.010,00 € (Member of the Research Team)
- 32. [ΔΕΤΕΠ-ΤΠΕ] Ανάπτυξη Διατύου Επιχειρηματικής και Τεχνολογικής Πληροφόρησης, Επιχειρησιακό Πρόγραμμα Ανάπτυξης Ανθρώπινου Δυναμικού, (Development of a Business and Technology Information Network, Human Resources Development Operational Program), Duration: 22/02/2011 22/02/2015, Total budget: 787.200,00 € (Scientific Coordinator of the Information and Communication Technologies Task Group)
- 33. **[Planet Data**] European Network of Excellence on Large-Scale Data Management, ICT-FP7-257641, Duration: 01/10/2010 30/09/2014, Budget: 328.592,00 € (Member of the Research Team)
- 34. **[plugIT]** Business and IT Alignment using a Model-based Plug-in Framework, ICT-FP7-231430, Duration: 01/03/2009 31/08/2011, Budget: 265.480,00 € (Scientific Coordinator FORTH / Project Scientific Manager)
- 35. **[RPIC (ΠΠΚ)]** Broadband Service and Business Transformation, Regional Pole of Innovation of Crete, General Secretariat of Research and Technology, Greek Ministry of Development, Duration: 01/11/2006 15/12/2008, Total budget: 300.954,00 € (Project Scientific Coordinator)
- 36. [InterLink] International Cooperation Activities in Future and Emerging ICTs, Coordination Action, FET Programme, IST-FP6-034051, Duration: 01/10/2006 31/03/2009, Budget: 121.400,00 € (Member of the Scientific Coordination Committee)

- 37. **[LOCCANDIA]** Lab-on-chip based protein profiling for Cancer diagnosis, FP6-IST-034202, Duration: 01/06/2006 31/05/2009, Budget ICS/ISL: 116.940,00 € (Member of the Research Team)
- 38. **[KPLab]** Developing Knowledge Practices Laboratory, Integrated Project, IST-FP6-27490, Duration: 01/02/2006 31/01/2011, Budget: 939.132 € (Member of the Research Team)
- 39. **[ACGT]** Advancing Clinico-Genomic Trials on Cancer: Open Grid Services for Improving Medical Knowledge Discovery, Integrated Project, IST-FP6-026996, Duration: 01/02/2006 31/07/2010, Budget: 213.396,00 € (Scientific Coordinator FORTH-ICS/ISL)
- 40. **[Research Excellence II]** Development of Ambient Intelligence Environment, Emerging Areas of Excellence in Information and Communication Technologies Programme, General Secretariat of Research and Technology, Greek Ministry of Development, Duration: 01/01/2006 30/06/2008, Budget: 41.279,00 € (Member of the Research Team)
- 41. **[Beyond-the-Horizon]** Anticipating Future and Emerging Information Society Technologies, Coordination Action, FET Programme, IST-FP6-006622, Duration: 01/01/2005 30/06/2006, Budget: 139.000,00 € (*Project Scientific Coordinator*)
- 42. **[REWERSE]** Reasoning on the Web with Rules and Semantics, Network of Excellence, IST-FP6-506779, Duration: 01/03/2004 29/02/2008, Budget: 86.479,00 € (Member of the Research Team)
- 43. [Cultural Documentation Standards] Standards for cultural documentation and support technologies for the integration of digital cultural repositories and systems interoperability: Studies, Prototypes and Best-practices guides, General Secretariat of Research and Technology, Greek Ministry of Development / Information Society, Duration: 14/02/2004 15/03/2005, Budget: 110.000,00 € (Member of the Research Team)
- 44. **[DELOS]** Network of Excellence on Digital Libraries, FP6-IST-2002-507618, Duration: 01/01/2004 31/12/2007, Budget: 434.400,00 €, (Member of the Research Team)
- 45. **[PrognoChip]** Developing and Establishing DNA Microarray Technology in Greece: Identification and Validation of Classification and Prognosis Molecular Markers for Breast Cancer, General Secretariat of Research and Technology, Greek Ministry of Development, Duration: 01/10/2003 − 31/03/2007, FORTH Budget: 202.230,00 € (Scientific Coordinator FORTH-ICS/ISL)
- 46. **[DIAVATIS]** An Interactive System for Improving the Promotion of Touristic & Historical Aspects, General Secretariat of Research and Technology, Greek Ministry of Development, Duration: 07/07/2003 − 06/12/2005, Budget: 291.588,00 € (Member of the Research Team)
- 47. **[SeLeNe]** Self e-Learning Networks, IST-2001-39045, Duration: 01/11/2002 31/01/2004, Budget: 59.000,00 € (Member of the Research Team)
- 48. **[Research Excellence I]** Emerging Areas of Excellence in Information and Communication Technologies Programme, General Secretariat of Research and Technology, Greek Ministry of Development, Duration: 01/01/2002 − 31/12/2004, FORTH-ICS Budget: 500.000,00 € (Scientific Coordinator FORTH-ICS/ISL)

- 49. **[QuestionHow]** Quality Engineering Solutions via Tools, Information and Outreach for the New Highly-enriched Offerings from W3C: Evolving the Web in Europe, FP5-IST- 2000-28767, Duration: 01/09/2001 31/08/2003, ISL Budget: 20.000 € (Member of the Research Team)
- 50. **[PLANET]** European Network of Excellence in AI Planning, FP5-IST-2000-29656, Duration: 01/08/2001 31/07/2003, Total Budget: 499.882,00 € (Scientific Coordinator FORTH-ICS)
- 51. **[OntoWeb]** Network of Excellence on Ontology-based Information Exchange for Knowledge Management and Electronic Commerce, IST-2000-29243, Duration: 01/06/2001 31/05/2004, Budget: 51.600,00 € (Member of the Research Team)
- 52. **[CYCLADES]** An Open Collaborative Archive Environment, FP5-IST-2000-25456, Duration: 01/02/2001 31/07/2003, Budget: 239.478,00 € (Scientific Coordinator FORTH-ICS)
- 53. **[MESMUSES]** Metaphors for Science Museums, FP5-IST-2000-26074, Duration: 01/02/2001-31/07/2003, Budget: 304.998,00 € (Member of the Research Team)
- 54. **[ARION]** An Advanced Lightweight Architecture for Accessing Scientific Collections, FP5-IST-2000-25289, Duration: 01/01/2001 29/02/2004, Total Budget: 2.808.860,00 € (Member of the Research Team)
- 55. **[SCHOLNET]** A Digital Library Testbed to Support Networked Scholarly Communities, FP5-IST-1999-20664, Duration: 01/11/2000 30/04/2003, Budget: 296.395,00 € (Member of the Research Team)
- 56. **[DELOS]** A Network of Excellence in Digital Libraries, FP5-IST-1999-12262, Duration: 01/01/2000 31/12/2002, Budget: 434.400,00 € (Member of the Research Team)
- 57. **[C-Web]** A Generic Platform Supporting Community Webs, FP5-IST-1999-13479, Duration: 01/01/2000 31/12/2000, Budget: 79.200,00 € (Member of the Research Team)
- 58. **[ECTourism]** An Electronic Commerce System for the Provision of Tourism Services over Internet, General Secretariat of Research and Technology, Greek Ministry of Development, Duration: 01/06/1999 31/03/2001, FORTH-ICS Budget: 358.034,00 € (Project Scientific Coordinator),
- 59. [Interreg] Telematics Centre, Information Highway linking organizations in Crete, Cyprus and south-eastern Mediterranean: Cultural telematics Applications), Region of Crete / INTERREG II, Duration: 01/01/1998 30/06/2001, Budget: 676.200,00€ (Member of the Research Team)

University of Crete

- [Practical Training IV] Practical Training Programme for the Students of the Computer Science Department, University of Crete, Greek Ministry of Education – Education and Lifelong Learning Programme, Duration: 2011-2015, Budget: 95.161,00 € (Scientific Coordinator UOC-CSD)
- [EICOS] Theoretical and Algorithmic Foundations for Personalized Information Ecosystems, Thales Programme, General Secretariat of Research and Technology, Duration: 2012-2015, Total Budget: 521.739,00 € (Scientific Coordinator UOC-CSD)

- 3. **[TORPS]** Tele-Opthalmologic Service for the Preventive Testing of Cortex Pathology based on an Automated Depth Camera, Cooperation Programme 2011, General Secretariat of Research and Technology, Duration: 2012-2015, Budget: 78.000,00 € (Scientific Coordinator UOC Data Processing Laboratory)
- 4. **[SUPPORT]** Horizontal Actions Supporting Schools, Educators and Students during the Transition towards a Digital School; New Services for the Panhellenic School Network, Duration: 2011-2015, Budget: 910.968€ (Scientific Coordinator UOC Data Processing Laboratory)
- 5. [OpenCourses] Open Academic Courses at the University of Crete, Ε.Π. Εμπαίδευση μαι Δια Βίου Μάθηση, Greek Ministry of Education Education and Lifelong Learning Programme, Duration: 2011-2015, Budget: 498.385,00 € (Scientific Coordinator)
- 6. **[HERON]** Integrated Electronic Services at the University of Crete, Digital Convergence Programme, Duration: 2011-2015, Budget: 252.435,00 € (Scientific Coordinator)
- 7. **[UoC Roadmap]** Roadmap for the Administrative Transformation of the University of Crete (Member of the Research Team)
- 8. **[S-Cube]** European Network of Excellence, Software Services and Systems Network, FP7-ICT-215483, Duration: 01/12/2007-30/11-2011, Budget: 375.680,00 € (Member of the Research Team)
- 9. **[EU-Canada]** EU-Canada Cooperation Programme in Higher Education and Training, Transatlantic Cooperation Programme, European Commission, (*Scientific Coordinator UOC/CSD*)
- 10. **[E-University]** Technical Specification of an Electronic Public Procurement System for the University of Crete, Information Society, *(Scientific Coordinator)*
- 11. **[Municipality of Heraklion]** Telecom and Service Infrastructure Upgrade Broadband Access Metropolitan Area Network, *(Scientific Coordinator)*
- 12. [Municipality of Heraklion] Technical Specifications for the Electronic Administration Services of the Municipality of Heraklion, Information Society, (Scientific Coordinator)
- 13. **[Practical Training III]** Practical Training Programme for the Students of the Computer Science Department, University of Crete, Greek Ministry of Education, Duration: 2006-2008, Budget: 49.970,00 € (Scientific Coordinator)
- 14. [Entrepreneurship] Student Entrepreneurship Programme, Greek Ministry of Education, (Member of the Research Team)
- 15. [Informatics Curriculum Development II] Support Programme for Informatics Studies at the Computer Science Department of the University of Crete, Greek Ministry of Education, (Member of the Research Team)
- 16. **[SETN06]** Organization of the 4th Panhellenic Conference on Artificial Intelligence, Co-funding by the University of Crete, *(Member of the Research Team)*
- 17. [Practical Training II] Practical Training Programme for the Students of the Computer Science Department, University of Crete, Greek Ministry of Education, Duration: 2001-2005, Budget: 48.130,00 € (Scientific Coordinator)

- 18. **[Informatics Curriculum Development I]** Support Programme for Informatics Studies at the Computer Science Department of the University of Crete, Greek Ministry of Education, *(Member of the Research Team)*
- 19. **[Logic Symposium]** Organization of the Panhellenic Logic Symposium, Co-funding by the European Commission and the University of Crete (*Scientific Coordinator*)

University of South Florida

- 1. **[USF1]** University of Florida, New Faculty Start-up grant, (\$30,000)
- 2. **[USF2]** Research and Creative Scholarship grant, (\$7,500)

PARTICIPATION IN INTERNATIONAL CONFERENCE ORGANIZATION COMMITTEES AND JOURNAL EDITORIAL BOARDS

[IJCKG25] 14th International Joint Conference on Knowledge Graphs, Heraklion, Greece, September 2025, Programme Committee Chair

[KG4SDE25] 3rd International Workshop on "Knowledge Graphs for Semantics-Driven Systems Engineering", @CAiSE2024, June 2025, Vienna, Austria, Programme Committee Co-Chair

[TGDK] Transactions on Graph Data and Knowledge, Member of the Editorial Board, 2023-to date

[KG4SDE24] 2nd International Workshop on "Knowledge Graphs for Semantics-Driven Systems Engineering", @CAiSE2024, June 2024, Limassol, Cyprus, Programme Committee Co-Chair

[ISWC23] 22nd International Conference on the Semantic Web, Athens, Greece, November 2023, Organization Co-Chair

[ERCIM-JST23] 4th ERCIM – JST (Japan Science and Technology Agency) Symposium on "Exploring New Research Challenges and Collaborations in AI, Big Data, Human-Computer Interaction and the Internet of Things", October 2023, Kyoto, Japan, General Co-chair

[KG4SDE23] 1st International Workshop on "Knowledge Graphs for Semantics-Driven Systems Engineering", @CAiSE2023, June 2023, Zaragoza, Spain, Programme Committee Co-Chair

[ERCIM-JST22] 3rd ERCIM – JST (Japan Science and Technology Agency) Symposium on "Humans and Interactions in Intelligent and XR Environments", October 2022, General Co-chair

[ERCIM-JST21] 1st ERCIM – JST (Japan Science and Technology Agency) Symposium on "Big Data and Artificial Intelligence", February 2021, General Co-chair

[ISWC20] 19th International Conference on the Semantic Web, Athens, Greece, November 2020, Organization Co-Chair

[KSEM19] 12th International Conference on Knowledge Science, Engineering and Management, Athens, Greece, August 2019, *General co-Chair*

[ISIP19] 13th International Workshop on Information Search, Integration and Personalization, May 2019, *General co-Chair*

[ICTERI16] 12th International Conference on ICT in Education, Research, and Industrial Applications: Integration, Harmonization, and Knowledge Transfer, Kiev, Ukraine, 2016, *Program Committee Co-Chair*

[JWS] Journal of Web Semantics, Database Area Editor, 2008-2023

[ESWC 12] Extended Semantic Web Conference, Ontologies Track co-chair

[IWOD09, IWOD 10] International Workshop on Ontology Dynamics, 2009 & 2010, member of the organizing committee

[IWOD08] 2nd International Workshop on Ontology Dynamics, at ISWC-08, October 2008, Program Committee Co-Chair

[HDMS08] 7th Hellenic Data Management Symposium, Heraklion, July 2007, General Chair

[PCI08] Panhellenic Conference on Informatics, Samos, August 2008, Program Committee Co-Chair

[DISWeb06] International Workshop on Data Integration and the Semantic Web, Luxembourg, June 2006, Workshop Co-Chair

[SETN06] 4th Hellenic Conference on Artificial Intelligence, Heraklion, Greece, May 2006, Conference Vice-Chair

[DISWeb05] International Workshop on Data Integration and the Semantic Web, Porto, Portugal, June 2005, Workshop Co-Chair

[ISWC04] 3rd International Conference on the Semantic Web, Hiroshima, Japan, November 2004, *Program Committee Co-Chair*

[EDBT04] 9th International Conference on Extending Database Technology, Heraklion, Greece, March 2004, Executive Committee Chair

[ESSW03] International Workshop on E-Services and the Semantic Web Budapest, Hungary, May 2003, *Workshop Co-Chair*

[ISWC03] 2nd International Conference on the Semantic Web, Sanibel Island, Florida, October 2003, Workshops Co-Chair

[IWSW00] 1st International Workshop on the Semantic Web, Lisbon, Portugal, September 2000, Workshop Co-Chair

[ETAI] Electronic Transactions on Artificial Intelligence, Member of the Editorial Board

[PLS01] 3rd Panhellenic Logic Symposium, Organizing Committee Member

I participate or have participated as a member of the Program Committees of numerous International Conferences and Workshops. A subset of these is listed below using their acronyms only for brevity:

- **2026:** EDBT26
- **2025:** EDBT25, TheWebConf 2025, AAAI25, CAISE2025, ESWC25, IJCKG25
- **2024:** TheWebConf 2024, EDBT24, ESWC24, ISWC24, SETN2024, KEOD2024, WISE2024, ICWE2024, MTSR2024, CAISE2024
- **2023:** ISWC23, ESWC23, TPDL23, TheWebConf 2023, EDBT23, WISE2023
- **2022:** ISWC22, ESWC22, TPDL22, TheWebConf 2022, AAAI22, WISE22, SETN22
- : AAAI21, EDBT21, TheWebConf 2021, TPDL21, KEOD21, WISE21
- : ISWC2020, EDBT2020, ESWC2020, TheWebConf 2020 (ex WWW), ESOCC2020, KEOD2020, ICTERI2020, ER2020, WISE2020, KR2020, SETN2020, TPDL2020
- : WWW2019, ESWC 2019, ISWC 2019, ICTERI 2019, WISE 2019, TPDL 2019, CIKM 2019
- : WWW2018, SETN 2018, ISWC 2018, TPDL 2018, AMI 2018
- : WWW2017, JCDL 2017, ICServ 2017, LWDM 2017, TPDL 2017, ISWC 2017, ESWC 2017, ODBASE 2017, CommonSense 2017
- : WWW2016, SOFSEM16, SETN 2016, ESWC2016, DIACHRON 2016, JCDL 2016, TPDL 2016, ISWC 2016, ODBASE 2016, COOPIS 2016
- : SOFSEM 15, ESWC 2015, WWW 2015, CommonSense 2015, JCDL 2015, TPDL2015, ODBASE 2015, DIACHRON 2015
- : CAISE 2014, ESWC 2014, WISE 2014, ISWC 2014, ODBASE 2014
- : CAISE 2013, ER 13, ESWC 13, WISE 2013, WISM 2013, ISWC 2013
- : CAISE 2012, ER 12, ESWC 12, WISE 2012
- : ESWC 11, ER 11, WISE 2011, SOFSEM 11
- : ISWC 10, ER-10, EDBT-10, WISE-10, SOFSEM-10
- : ICDE 09, ER 2009, ECDL 2009, AP2PC 09, EDBT09
- : WWW08, ESWC 08, ER-08, WISM-08, DBISP2P-08
- : IJCAI07, WWW07
- : KR06, ICDE06, SWDB06, CEC06, AP2PC06, WIDM06, ISWC06, DEXA06, CCAI06, SOFSEM06, HDMS06
- : WWW05, ISWC05, WISE05, ER05, ICSOC05, AP2PC05, SOFSEM05, HDMS05
- : AAAI04, WWW04, ER04, AP2PC04, ICSOC04, WISE04, SETN04, SAC04, SOFSEM04, WSG04, AIMSA04, SWSWPC04, DBA04, DBISP2P04, HDMS04
- : WWW03, ICSOC03, DBISP2P03, SWDB03, WISE03, WebDB03, FLAIRS03, DEXA03, AP2PC03, HDMS03, CAISE03
- : CAISE02, AP2PC02, ISWC02, HDMS02, EuroWeb02, DEXA02, NGITS02, SETN02, FLAIRS02
- : SWWS01, PLS01, IWSW01
- : IWSW00

SERVICE AND COMMITTEE PARTICIPATION

- National Representative, ESFRI Strategic Group on Data, Computing and Digital Research Infrastructures (April 2020 to date)
- Chair, Sectoral Scientific Council on Computer and Information Sciences, National Research and Innovation Council (11/2020 – to date)
- Vice-Chair, Sectoral Scientific Council on Mathematics and Information Sciences (4/2018 7/2019)
- Head, Information Systems Laboratory, Institute of Computer Science, FORTH (1/2012– to date)
- Chair, Scientific Council, National Documentation Center (3/2014 2/2017)

- Member of the Board of Directors, European Research Consortium on Informatics and Mathematics (ERCIM), Chair of the Science Task Group (2012 – to date); Member of the ERCIM EEIG Executive Committee (in the past)
- Chair, UoC Committee on New and Emerging Technologies, (6/2016 08/2020)
- Member of the Board of Directors, Science and Technology Park of Greece Management Company (5/2015 to date)
- Chair, Department of Computer Science, University of Crete. Member of the Senate of the University of Crete (9/2006 8/2010)
- Director of the Data Processing Laboratory and Head of the Information and Communication Services and Technologies Center of the University of Crete (12/2009 12/2013)
- Member of the Graduate Studies Committee, Department of Computer Science, University of Crete (2014-2016)
- Graduate Coordinator and Chair of the Graduate Studies Committee, Department of Computer Science, University of Crete (2003-2006)
- Member of the University-wide Graduate Studies Committee, University of Crete (2003-2006)
- Chair, ERCIM Working Group on the Semantic Web (11/2003 10/2007)
- Member of the ERCIM Committee of Postdoctoral Fellowships
- Member of the ERCIM Projects Task Group
- Member of the Library Committee, Institute of Computer Science, FORTH
- Evaluator of Proposals, ICT Programme FP6, FP7, H2020 (served also as panel rapporteur or vicechair)
- Evaluator of Proposals, ERC Advanced Grants
- Evaluator of Proposals, EPSRC, UK
- Evaluator of Proposals, Pythagoras Programme for Research Funding, Greek Ministry of Education
- Evaluator of Proposals, Action «RESEARCH CREATE INNOVATE» GSRT
- Reviewer for the academic journals: ACM Transactions on Database Systems, IEEE Transactions on Knowledge and Data Engineering, IEEE Transactions on Software Engineering, Computational Intelligence, Applied Intelligence, Journal of Intelligent Information Systems, IEEE Intelligent Systems, Journal of Distributed and Parallel Databases, the Computer Journal, Data and Knowledge Engineering, Information Systems, Journal of Data Semantics, Journal of Web Semantics, IEEE Transactions on Services Computing, ACM Transactions on the Web, Journal of Theory and Practice of Logic Programming, Journal of Web Semantics, Journal of Data Semantics
- Book proposal evaluator for Morgan-Kaufmann Publishers
- Proposal evaluator for the Austrian Research Council and the Irish Research Council
- Member of ACM (Senior grade), IEEE, AAAI
- Member of the Hellenic Society for Artificial Intelligence

STUDENT SUPERVISION

The work reported in the following dissertations and in the majority of the MSc theses has been conducted at the Information Systems Laboratory of the Institute of Computer Science (ICS) of the Foundation for Research and Technology - Hellas (FORTH), and has been financially supported by a scholarship provided by FORTH-ICS.

- I. Completed PhD Dissertations: F. Gouidis (co-supervision with A. Argyros, T. Patkos), G. Troullinou (co-supervision with H. Kondylakis, degree conferred March 2024), K. Papantoniou (co-supervision with G. Flouris, degree conferred March 2024), A. Dougalis (degree conferred July 2023), K. Varsos (co-supervision with G. Flouris, degree conferred July 2023), I. Genitsaridi (co-supervision with P. Sidiropoulos), D. Zografistou (co-supervision with G. Flouris, degree conferred December 2019), C. Zeginis (degree conferred November 2014), G. Baryannis (degree conferred November 2014), H. Kondylakis (degree conferred October 2010), T. Patkos (degree conferred October 2010), K. Kritikos (degree conferred October 2008), G. Flouris (degree conferred July 2006), N. Papadakis (degree conferred July 2004).
- II. PhD Dissertations in Progress: Z. Asma, M. Papamichail, E. Ymeralli.
- III. Completed MSc Theses: W. Cowley, S. Alexaki (co-supervision with V. Christophides), P. Doulgeraki, G. Flouris, G. Karvounarakis (co-supervision with V. Christophides), K. Kouvaris, N. Papadopoulos, A. Damala, E. Katiniou, V. Lipa, I. Katzagiannaki, A. Tzorbatzaki, A. Maganaraki (co-supervision with V. Christophides, P. Constantopoulos), S. Tourtounis, R. Kaftaki, N. Dimokas, Th. Patkos, A. Misargopoulos, M. Papaggelis, V. Alevizou, N. Ksantholpoulos, K. Kouriati, K. Athanasaki, D. Manakanatas, H. Kondylakis, I. Roussidis, P. Tziavas, G. Paparis, I. Zikou, I. Chrysakis, T. Kutsuras, E. Nikoloudakis, E. Kritsotakis, D. Velegrakis, C. Zeginis, G. Baryannis, L. Kriara, M. Kalaitzaki, I. Androulakis, I. Tampakis, E. Ranoutsou, G. Linardakis, E. Flilipoulou, I. Makrydakis, G. Hatzivasilis, E. Daskalaki, K. Konsolaki, E. Tahmazidis, G. Troulinou, C. Strubulis, H. Tzagarakis, M. Koutraki, D. Zografistou, V. Papakonstantinou, O. Smyrnaki, M. Skouradaki, E. Papadakis, J. Saveta, E. Michael, A. Avgoustaki, I. Diakos, D. Metallidis, K. Dimitraki, I. Ramoutsaki, F. Gouidis, V. Tzikoulis, E. Ymeralli, A. Pappas, P. Lilitsis, V. Glabedakis, M. Stratigi, N. Tsabanaki, G. Hompis, N. Zourbakis, J. Agathangelos, K. Kreatsoulas, P. Basina, E. Politaki, P. Zervoudakis, N. Kardoulakis, V. Chaniotakis, P. Baritakis, F. Alevizakis, K. Meladakis, C. Prasatzakis, D. Danis, S. Koumourou.
- IV. M.Sc Theses in Progress: A. Agourakis, K. Kampadais
- V. Diploma Theses: more than 150 diploma theses have been completed under my supervision.
- VI. PhD Supervision and Examination Committees: D. McClurkin, E. Theodorakis, I. Tzitzikas, E. Marazakis, I. Refanidis (Aristotle University of Thessaloniki), D. Toman (Kansas State University), J. Broekstra (Vrije University Amsterdam), A. Bikakis, P. Papadakos, I. Lillis, P. Raftopoulou (Technical University of Crete), V. Lipa, N. Partarakis, S. Triantafilou, S. Batsakis (Technical University of Crete), A. Leonidis, S. Ntoa, Mohamed Hilia (Univ. Paris-Est Creteil), A. Skarlatidis (Univ. Piraeus), T. Stavropoulos (Aristotle University of Thessaloniki), V. Efthymiou, M. Skouradaki (Univ. Stuttgart), G. Bouloukakis (INRIA), G. Margetis, G. Borboudakis, K. Bereta (University of Athens), M. Mountantonakis, D. Bilidas (University of Athens), A. Papaioannou, A. Vassiliadis (Aristotle University of Thessaloniki), N. Lydatakis, E. Geronikolakis, V. Manousaki, K. Bacharidis, M.E.Papadaki, I. Vassiliou (Hellenic Mediterranean University), N. Fanourakis.

RESEARCH & DEVELOPMENT / INNOVATION ACTIVITIES

Coordinating ISL and ICS activities with the prospect of exploitation. In addition to the internal projects listed below, I have undertaken the initiative of re-engineering or digital transformation of several of the processes used in the Institute of Computer Science and in FORTH's Central Administration for improving the management of contracts, travels, preparation of proposals, web site maintenance and supervising the implementation of supporting information systems.

I have also undertaken the initiative of promoting several of the activities of research laboratories of the Institute with the prospect of establishing spin-off companies and attracting venture capital.

- OramaVR is a spin-off company of ICS (est. 2016) in the medical VR domain that has gained significant market traction, has attracted VC funds and was recently incorporated in Switzerland.
- Exapsys is a hardware design start-up Company in which ICS personnel is involved (CARV Laboratory).
- CodeBGP was founded by members of the Telecommunications and Networks Laboratory. The domain of activity of the company is that of Network Security. The company was acquired by CISCO/ThousandEyes in the summer of 2023.
- *TraQBeat* is also a start-up company in which ICS personnel is involved. The company is active in the domain of Biosignal Analysis using wearable devices.
- SceneOpsis was established in 2023 as a spin-off of the Computational Visio and Robotics Laboratory of ICS. The company is devising techniques for 3-d image synthesis using neural radiance fields resulting in high-quality scene reconstruction.
- Ypsilon Care Tech is the newest spin-off company of ICS, aiming to promote and further develop innovative e-health solutions of the Center for E-health Applications and Services unit of the Computational Biomedicine Laboratory.

[FORTH Enterprise-level E-Services Suite] Suite of electronic services for the support of administrative processes. The suite implements and provides electronic forms and workflows for the fulfillment of administrative processes including procurement, ticketing systems, electronic protocol, timesheets, proposal submission, user management, vacation / leave requests, conference room booking, GDPR compliance and others.

[CAPrice] FORTH-ISL is running the CAPrice Community Initiative (https://www.caprice-community.net/), an effort to raise citizens' awareness on matters related to privacy in the digital world. As part of this initiative, the ongoing CAP-A project developed and provides a collective intelligence platform that empowers individuals to ask for a more privacy conscious behavior by mobile apps (https://isl.ics.forth.gr/cap-a-portal/). Users can express their expectations about the privacy requests of apps, share articles or even help visualize GDPR-related aspects found in the Privacy Policy documents of apps, so that the rest of the community can quickly check the small print.

[APOPSIS] A Web-based Platform for the Analysis of Structured Dialogues. APOSIS is a web platform for modeling and analyzing argumentative discussions by offering different means of opinion analysis, allowing the participants to obtain a complete picture of the validity, the justification strength and the acceptance of each individual opinion. The system applies a semantic representation for modeling the user-generated arguments and their relations, a formal framework for evaluating the strength value of each argument and a collection of Machine Learning algorithms for the clustering of features and the extraction of association rules.

[RDF Digest] A summarization engine for RDF schemas. The system accepts as input large and possibly distributed RDF Schemas and/or Ontologies and produces summaries in the form of directed graphs by taking into account both schema and instance information, using structural and semantic properties and measures such as node centrality and instance weighing.

[Methinks] A web-based system for the management of comments submitted by uses on websites selling or aggregating good or services. The system is able to provide users with different views on the comments submitted. Views are generated based on criteria related to the argumentation included in the comments and the strength of opinion expressed. The system has a strong foundation on argumentation theory (under development). Discussions for the commercial exploitation of the developed technology are underway.

[Sommelier] A rule-based recommendation system for wines based on food characteristics and user preferences (under development).

[Herodicus] An application that can instruct humans to successfully perform physical exercises, by expressing all possible positions and gestures in a logical context (under development).

[Exelixis] A data integration system that enables and exploits ontology evolution. The system provides algorithms for rewriting queries among different ontology versions and for producing the set of maximally-contained rewritings for the sources.

[RDFSuite] A suite of tools for managing RDF metadata. The architecture comprises: (a) VRP, the first validating RDF parser supporting semantic validation of RDF resource descriptions and schemas, (b) RSSDB, the First RDF Store using schema knowledge to automatically generate an Object-Relational (SQL3) representation of RDF metadata and load resource descriptions, and, (c) RQL, the First Declarative Language for uniformly querying RDF schemas and resource descriptions.

[CONFIOUS] A web-based conference management system offering advanced functionality for supporting the reviewing process. Features of the system include: automatic assignment of papers to reviewers using conflict detection, multi-level committees, multiple conference tracks, virtual committee meetings.

[CYCLADES] A service mediation middleware architecture for supporting the dynamic user community management and the interoperation of services in the framework of CYCLADES. CYCLADES supports services for collection management, information retrieval, filtering and recommendation, collaborative work over digital archives participating in an open, extensible framework. The mediator service provides for inter-service communication, the addition of services to CYCLADES and maintains user and community information and access rights.

[PrognoChip Mediator] The Mediator component of the PrognoChip Integrated Clinico-Genomics Environment (ICGE) enables the integration of the clinical and genomic information subsystems. The biomedical investigator can form clinico-genomic queries through the web-based graphical user interface of the Mediator. This is split into several query forms, allowing cancerous sample selection (along with their associated gene expression profiles and patient characteristics), based on criteria of interest. After a query is formed, the Mediator translates it into an equivalent set of local sub-queries, which are executed directly against the constituent databases. Then, results are combined for presentation to the user and/or transmission to the Data Mining tools for analysis. The mediator works in conjunction with an automatic schema mapping tool and a query system (QUETE) for distributed sources.

[SEMPHONIA] SeMPHONIA is an architecture for an agent-based marketplace, utilizing knowledge from RDF product repositories, in an open peer-to-peer environment. The platform defines the basic stages of the process of e-trading, facilitating users in closing deals in an automated manner. The implementation of our approach is demonstrated in the context of auction scenarios. The platform is designed to be highly extensible, in order to allow experimentation with the technologies involved.

[ECTourism] A middleware architecture for supporting value-added e-commerce services in the context of the ECTourism project. The architecture permits the on-line composition of basic tourism services (such as hotel reservations, ferry-boat reservations, etc.) that are provided by tourism service providers and middle agents and is open and scalable.

KNOWLEDGE OF FOREIGN LANGUAGES

English, French

EXTRA-CURRICULAR ACTIVITIES

Competitive Contract Bridge