

Curriculum  
Vitae

2022

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**Dr. Konstantinos Kotis**

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## Summary

**Konstantinos Kotis** (ORCID <https://orcid.org/0000-0001-7838-9691>) owns a B.Sc. in Computation from University of Manchester (UMIST), UK and a Ph.D. in Information Management (Knowledge Representation & Management) from the University of the Aegean, Greece. He is currently an assistant professor at the Dept. of Cultural Technology and Communication of the University of the Aegean, a member of the Intelligent Systems Lab, and a research associate of the Dept. of Digital Systems of the University of Piraeus (a member of the AI lab). He is currently leading the Semantic Web and IoT research group of i-Lab (<https://i-lab.aegean.gr/groups/semantic-technologies-group/>). His research interests include but not limited to Knowledge Engineering, Semantic data management, Semantic IoT, Semantic CH, KG-based AI chatbots. He has published more than 70 papers (Google Scholar h-index:18, >1400 citations) in peer-reviewed international journals (incl. IJ DST, KAIS, ILE, IJKEDM, FGCS, IEEE IS, IJWGS, IJM SO, Applied AI) and conferences (incl. ESWC, ISWC, KSEM, IJCAI, VLDB) and served as reviewer and reviewer in several journals and conference events (incl. IEEE IS, IEEE TKDE, ACM TIoT, KAIS, JWS, J.UCS, IJ DMMM, ICTAI, IJCAI). He has also participated in several national and international projects, including among them, Grid4All (FP7, 2008), iCore (FP7, 2012), Internet of Things (Finnish Tivit/Tekes, 2012), AMINESS (Greek Research & Technology General Secretary. 2014), datAcron (H2020, 2016), Time Machine (H2020, 2019)).

**Teaching keywords:** AI (info. retrieval, knowledge engineering, semantic web, ontologies), Software Engineering (OO development, (semantic) Web development, Mobile apps), Data Science (semantic data management), Internet/Web of Things (semantic modeling, semantic interoperability).

**Research keywords:** Knowledge/Ontology Engineering, Semantic Web and applications, Semantic Data management (RDFization, alignment, integration, visualization), Semantic Interoperability in IoT, Ontology-Based Data Access and Integration, Linked Data, KGs and Conversational AI.

**Technical keywords:** Ontology Alignment Framework, JENA, OWL API, Linked Open Data, Java, XML, XSD, XSLT, RDF, OWL, SPARQL, C#, HTML, CSS, WordPress, JavaScript, PHP.

### Memberships:

- W3C Community/Working Groups: Web of Things, Schema Extensions for IoT
- Hellenic Society of Artificial Intelligence (EETN),
- Marie Curies Association Alumni (MCAA),
- Time Machine Organization (TMO)

### Awards:

- ERCIM “Allain Bensoussan” fellowship at post-doc level (VTT Technical Research Center of Finland, 2011-12), EU
- Best paper award: A. Pliatsios, C. Goumopoulos, and K. Kotis, "Interoperability in IoT: A vital key factor to create the “Social Network” of Things", Thirteenth International Conference on Mobile Ubiquitous Computing, Systems, Services and Technologies, UBICOMM 2019, Porto, IARA, 09/2019

## 1. Personal Details

**Name:** Konstantinos  
**Last Name:** Kotis  
**Birth Date:** 5-03-1973  
**Birthplace:** Samos, Greece  
**Nationality:** Greek  
**Languages:** Greek (native), English (fluent), German (basic)  
**Marital Status:** Married, 2 children  
**Home Address:** S. Choutzaiou 9A, Lesvos, Greece  
**Phone:** +30 6974822712  
**E-mail:** kotis@aegean.gr, kotis.kostas@gmail.com  
**Web Pages:** <http://ai-group.ds.unipi.gr/kotis>, <http://i-lab.aegean.gr/kotis>  
**Skype:** kotis\_konstantinos  
**LinkedIn:** <http://gr.linkedin.com/in/kotis>  
**Twitter:** <https://twitter.com/KotisK>

### ***Researcher Details:***

**Web of Science ResearcherID:** B-1883-2009

**Scopus Author ID:** 8951329800

**Orchid ID:** 0000-0001-7838-9691

Publons: <https://publons.com/researcher/2870237/konstantinos-kotis/>

Orchid: <https://orcid.org/0000-0001-7838-9691>

## 2. Studies

### ***2.1 Higher Education***

- (2000-2005) PhD in Information Management, Department of Information and Communications Systems Engineering, University of the Aegean, Greece. (Grade: "Excellent")

PhD title: "Design and Implementation of collaborative and human-centered ontology engineering environments".

Supervisor: Prof. George A. Vouros, University of the Aegean.

Research outcomes: state-of-the-art human-centered collaborative ontology engineering methodology (HCOME) and a prototype system.

- (1992-1995) Bachelor degree (BSc Hons) in Computation, University of Manchester Institute of Science and Technology, UK. (Class 2:2).
- (1990-1992) College Degree in Computation, KORELKO college, Athens, Greece

## **2.2 Seminars**

- (11/2015) Training in Management of Departments, National Centre for Public Administration and Local Government (EKDDA), Samos (5 days)
- (10/2015) 3<sup>rd</sup> GCC Seminar: A Cyber Crime Centre of Excellence for Training, Research and Education in Greece (Ministry of Internal Affairs), Athens (2 days)
- (11/2014) Advanced Training in eLearning (for tutors), National Centre for Public Administration and Local Government (EKDDA), Athens (2 weeks)
- (02/2013) e-Government and Citizens, National Centre for Public Administration and Local Government (EKDDA), Athens (5 days)
- (10/2012) ERCIM ABCDE Seminar II, Marie-Curie Action, Sophia Antipolis, INRIA, FR (2 days)

## **3. Professional appointments**

### **3.1 Recent appointments**

#### **3.1.1 (2018 - today) Assistant Professor, Dept. of Cultural Technology and Communication, University of the Aegean**

- Full time assistant professor and member of the Intelligent Systems Labs (Lesvos island, Greece):

##### **Undergraduate courses:**

- 1st year: Internet Technologies (**Dept. of Cultural Tech and Comm.**)
- 2nd year: Design and Development of Web sites and applications (**Dept. of Cultural Tech and Comm.**)
- 3rd year: Web Programming (**Dept. of Cultural Tech and Comm.**)
- 4th year: Semantic Web and IoT (**Dept. of Cultural Tech and Comm.**)

##### **Postgraduate courses:**

- Semantic Web and IoT (**Dept. of Information and Comm. Eng., and Dept. of Cultural Tech and Comm.**)
- Web and Digital Culture (**Dept. of Cultural Tech and Comm.**)

#### **3.1.2 (late 2017 – early 2018) Sr. Researcher, Dept. of Computer Science, University of Houston**

- Research, management and students' supervision at Computational Biomedicine Lab (CBL), and Borders, Trade and Immigration (BTI) Institute.

#### **3.1.3 (2016 - 2018) Lectureship, Postgraduate Program, Department of Digital Systems, University of Piraeus, Greece (part-time)**

- Web Applications (HTML/WordPress, XML, RDF) course at e-Learning Postgraduate Program

#### **3.1.4 (2013 - today) Research Associate, AI Lab, Department of Digital**

### **Systems, University of Piraeus, Greece (part-time)**

- Research on semantic data management (RDFization, alignment, integration of data using semantic technologies), semantic interoperability and trust in smart environments/IoT, and Ontology-Based Data Access (OBDA) and Integration.
- Research projects (e.g. national project AMINESS, H2020 project datACRON) and proposals' preparation for H2020 (Cyber-Physical Systems, IoT and Big Data).
- Lecturing at Postgraduate level (Course: Web Applications).

### **3.1.5 (2000 – 2018) Head of IT dept., North Aegean Region Administrative Authorities (NARA), Samos, Greece (full-time)**

- IT management
- Development projects' management
- Software/Web Sites development (WordPress, Joomla), Open Linked Data (D2RQ OBDA platform, SPARQL, RDF)

## **3.2 Past appointments**

### **3.2.1 (20011-12) Post-Doc Researcher at VTT, Finland (ERCIM fellowship, Marie Curie and ABCDE program)**

- One-year research program on 'semantic interoperability and smart environments'. The goal of the research program was to propose methods for automatically aligning smart entities (devices and software) in the Semantic Web of Things.

### **3.2.2 (2006-2010) Lecturer/Researcher Department of Information and Communications Systems Eng., University of the Aegean**

#### **3.2.2.1 Lectureship (2009 -2010)**

- "Software Engineering" course in the Graduate School of the Department of Information and Communications Systems Eng., University of the Aegean
- "Knowledge Engineering" course in the Graduate School of the Department of Information and Communications Systems Eng., University of the Aegean
- "Ontologies and the Semantic Web" course in the Postgraduate School of the Department of Information and Communications Systems Eng., University of the Aegean

#### **3.2.2.2 Lectureship (2008 - 2009)**

- "Software Engineering" course in the Graduate School of the Department of Information and Communications Systems Eng., University of the Aegean
- "Knowledge Engineering" course in the Graduate School of the Department of Information and Communications Systems Eng., University of the Aegean
- "Ontologies and the Semantic Web" course in the Postgraduate School of the Department of Information and Communications Systems Eng., University of the Aegean

### **3.2.2.3 Assistant Professorship (2007 - 2008)**

- “Ontologies and the Semantic Web” course in the Postgraduate School of the Department of Information and Communications Systems Eng., University of the Aegean
- “Databases” course in the Graduate School of the Department of Information and Communications Systems Eng., University of the Aegean

### **3.2.2.4 Lectureship (2006 - 2007)**

- “Software Engineering” course in the Graduate School of the Department of Information and Communications Systems Eng., University of the Aegean
- “Ontologies and the Semantic Web” course in the Postgraduate School of the Department of Information and Communications Systems Eng., University of the Aegean

### **3.2.3 (2005-2006) Post-Doc Researcher, Ai-Lab, Department of Information and Communications Systems Engineering, University of the Aegean**

- Research in “Knowledge Representation and Resource Description Languages”, Postgraduate Studies Department, Department of Information and Communications Systems Eng., University of the Aegean (Research and Lecturing activities).
- Design and implementation of an Ontology Mapping tool (AUTOMS: AUTomated Ontology Mapping through Synthesis of approaches)
- Participation in the design and Implementation of AUTOMS-F: Framework for AUTomated Ontology Mapping through Synthesis of approaches
- Participation in the Ontology Alignment Evaluation Initiative (OAEI) 2006 Contest, evaluating AUTOMS tool (4th place among 10 participants) and presentation of results in Ontology Matching International Workshop, Atlanta USA, 2006
- Invited Lectures in “Ontologies and Schema Languages on Semantic Web”, Postgraduate Course, Department of Information and Communications Systems Eng., University of the Aegean

## **4. Participation in Research and Development Projects**

### **4.1 International-EU Research projects**

- Time Machine: Big Data of the Past for the Future of Europe, H2020 Coordination and support action (CSA) – FETFLAG-2018-01
  - Role(s): co-author in Task 2.2 (Computation and AI)
  - Period: 2019-2020
- datACRON: Big Data Analytics for Time Critical Mobility Forecasting, H2020 project
  - Role(s): proposal preparation, research on ‘semantic annotation of streams’
  - Period: 2016-2019
- AMINESS: “Analysis of Marine Information for Environmentally-Safe Shipping”,



Greek General Secretariat for Research and Technology (GSRT) (Link: <http://aminess.eu/>)

- Role(s): research and development
- Period: 2013-2015
- iCore: “Empowering IoT through Cognitive Technologies “, FP7 project (Link: <http://www.iot-icore.eu/>)
  - Role(s): research and development
  - Period: 2011-2012
- Internet of Things, Finnish TEKES project: (Link: <http://www.internetofthings.fi/proj>)
  - Role(s): research and development
  - Period: 2011-2012
- “Usefil: Unobtrusive Smart Environments for Independent Living”, FP7 project (<http://usefil.eu/>)
  - Role(s): research
  - Period: 2011-2012
- “OntoSum: Ontology Management and exploitation for text summarization”. Project code: 1576, University of the Aegean, Research Funding Committee of Greece.
  - Role(s): research and development
  - Period: 2006-2008
- “Grid4All: democratize the Grid” Project no. 034567, Specific Targeted Research Project (STREP) IST project, FP6
  - Role(s): research
  - Period: 2006-2008

#### **4.2 National Research and Development projects (in Greek)**

Τίτλος	Προϋπολογισμός/ Χρηματοδότηση	Έναρξη	Υπεύθυνη Υπηρεσία/ Ρόλος	Κωδ. Έργου
Ηλεκτρονική Πύλη Εξυπηρέτησης Πολιτών της Ν.Α Σάμου	233.910,00€ (ΠΕΠ Β. ΑΙΓΑΙΟΥ)	2007	Δ/ση Πληροφορικής ΝΑ Σάμου/ Προετοιμασία και υποβολή πρότασης, Διοίκηση Έργου	87375
Ψηφιοποίηση πολιτιστικής- πολιτισμικής παράδοσης της Σάμου	266.401,07€ (ΠΕΠ Β. ΑΙΓΑΙΟΥ)	2007	Δ/ση Πληροφορικής ΝΑ Σάμου/ Προετοιμασία και υποβολή πρότασης, Διοίκηση Έργου	114904
Ενέργειες Ενημέρωσης και Ευαισθητοποίησης των πολιτών για την Ψηφιακή Σύγκληση	48.994,10€ (Γ' ΚΠΣ)	2008	Δ/ση Πληροφορικής ΝΑ Σάμου/ Προετοιμασία και υποβολή πρότασης, Διοίκηση Έργου	126764

Ανάπτυξη και Διάθεση Εφαρμογών Ηλεκτρονικής Επικοινωνίας και Ηλεκτρονικής Συμμετοχής για την Προώθηση της Ευρυζωνικότητας στη Νομαρχιακή Αυτοδιοίκηση Σάμου	312.363,10€ (Γ' ΚΠΣ)	2009	Δ/νση Πληροφορικής ΝΑ Σάμου/ Προετοιμασία και υποβολή πρότασης, Διοίκηση Έργου, Ανάπτυξη Οντολογιών	302766
Παρουσίαση Μνημείων μέσω Διαδικτύου και DVD: Εκκλησία Αγίου Κηρύκου και Ιαματικές πηγές Ικαρίας	139.002,00€ (Interreg)	2007	Δ/νση Πληροφορικής ΝΑ Σάμου/ Προετοιμασία και υποβολή πρότασης, Διοίκηση Έργου	103534
Πρόληψη και περιστολή θαλάσσιας ρύπανσης σε εμπορικούς και τουριστικούς λιμένες (PREMARPOL)	147.500,00€ (Interreg)	2011	Τμήμα Πληροφορικής ΠΕ Σάμου/ Προετοιμασία και υποβολή πρότασης, Διοίκηση Έργου, Ανάπτυξη συστήματος αξιοποίησης δεδομένων	901032
DigiArc: Ψηφιακό Τόξο Πολιτισμού Ελλάδας – Κύπρου : Διάσωση και ανάδειξη της Μεσαιωνικής Πολιτισμικής Κληρονομιάς στην νησιωτική περιοχή του Αιγαίου και της Κύπρου	INTERREG V-A «Ελλάδα Κύπρος 2014-2020»	2019	Παν. Αιγαίου, Τ.Π.Τ.Ε, / Διοίκηση Έργου	
Re-CULT: Ανάδειξη και διάδοση της πολιτιστικής και φυσικής κληρονομιάς μέσα από την ανάπτυξη και θεσμική ενίσχυση του Θρησκευτικού Τουρισμού στη νησιωτική περιοχή της Ελλάδας και της Κύπρου	INTERREG V-A «Ελλάδα Κύπρος 2014-2020»	2019	Παν. Αιγαίου, Τ.Π.Τ.Ε, / Ανάπτυξη Εργαλείων ICT, Ψηφιοποίηση και τεκμηρίωση	
Ψηφιακές Διαδρομές Σαμιακού Οίνου: Το κρασί σαν μέσο προβολής και προώθησης του πολιτιστικού αποθέματος της Σάμου	Επιχειρησιακό Πρόγραμμα «Βόρειο Αιγαίο 2014-2020	2019	Τμήμα Πληροφορικής ΠΕ Σάμου/ Προετοιμασία και υποβολή πρότασης	5032640
Ενίσχυση της αντίληψης χρωμάτων σε ψηφιοποιημένους πίνακες τέχνης για άτομα με Ανεπάρκεια Χρωματικής Όρασης	Ε.Π. «Ανάπτυξη Ανθρώπινου Δυναμικού, Εκπαίδευση και Δια Βίου Μάθηση», με την συγχρηματοδότηση της Ελλάδας και της Ευρωπαϊκής Ένωσης	2019	Αναπληρωτής Επιστημονικός Υπεύθυνος	
MemoBot: «Συνομιλώντας με τον Καζαντζάκη: Έξυπνες εμπειρίες Μικτής Πραγματικότητας»	Ερευνώ-Δημιουργώ-Καινοτομώ (ΕΠΑνεΚ), Παρέμβαση Ι	2020	Υπεργολάβος, Επιστημονικός Υπεύθυνος: Παροχή υπηρεσιών έρευνας και ανάπτυξης πλατφόρμας AI chatbot βασισμένη σε	T2ΕΔΚ-03334 ΕΛΕ ΠΑ - 80331

			μεθόδους Μηχανικής Μάθησης, Επεξεργασίας Φυσικής Γλώσσας, και Γράφων Γνώσης	
IMOC: «Εξυπνη Ανοιχτή Δημιουργική Πλατφόρμα Μουσείων»	Ερευνώ-Δημιουργώ-Καινοτομώ (ΕΠΑνΕΚ), Παρέμβαση I	2020	Υπεργολάβος	T2ΕΔΚ-00047
MuBot: «Εξυπνος ξεναγός σε Μουσεία»	Επιχειρησιακό Πρόγραμμα Περιφέρειας Κρήτης, Έρευνα και ανάπτυξη από ΜΜΕ, σε τομείς της RIS3Crete	2020	Υπεργολάβος	
PaloAnalytics: Συνδρομητική πλατφόρμα ανάλυσης μεγάλου αριθμού διαδικτυακών αναφορών, εύρεσης insights και επιχειρηματικών ευκαιριών σε πολυγλωσσικό περιβάλλον	Ερευνώ-Δημιουργώ-Καινοτομώ (ΕΠΑνΕΚ), Παρέμβαση II	2020	Ερευνητής, Ε3: Ανάπτυξη μηχανισμών εξαγωγής πληροφορίας από τα πρωτογενή δεδομένα	2989

## 5. Scholarly and Scientific Activities

### 5.1 Invited Talks, Presentations, Posters

- SenZations Summer School on Internet of Things - SenZations2020, SCHOOL OF SOCIAL SCIENCES - Department of Cultural Technology and Communication, 29 Jun 2020 to 3 Jul 2020, Lesvos (topic: Semantic Web and IoT)
- Invited talk in “IoT meets AI: Technologies and Perspectives”, University of the Aegean, AI-Lab, Samos May 2016.
- Invited talk in “Sem. Interoperability in IoT”, Ontology Summit 2015 ([http://ontology-02.cim3.net/wiki/ConferenceCall\\_2015\\_03\\_05](http://ontology-02.cim3.net/wiki/ConferenceCall_2015_03_05))
- Invited talk (in Greek) in “Ontology Engineering”, University of the Aegean, Ai-Lab, Samos, Dec. 2013
- Invited talk in “Semantic Interoperability on the Internet of Things”, University of the Aegean, Ai-Lab, Samos, May 2013
- Presentation in “Ontology Alignment for IoT interoperability”, IoT project review meeting (TEKES, FI), 2012
- Presentation in “AUTOMSV2 and ASE tools for OAEI 2012”, OM Workshop, ISWC 2012, Boston, 2012
- Presentation in “Semantic Interoperability in iCore project”, IERC AC4 Semantic interoperability Workshop – 19&20th of June 2012, IoT-Week, Venice, 2012
- Invited talks in “Ontology Eng. in the Semantic Web era”, Knowledge Engineering and Semantic Web postgraduate program at University of the Aegean, Samos, 2010
- Invited talks in “Ontology Eng. in the Semantic Web era”, Knowledge Engineering Summer School, Samos, July 2008
- Invited talks in “Ontologies and Schema Languages on Semantic Web”, University

of the Aegean, Ai-Lab, Samos, 2005

- Invited talks in “Ontology Engineering: Tools and Methodologies for constructing and managing ontologies”, University of the Aegean, Ai-Lab, Samos, Dec. 2004
- Invited talks in “Knowledge Management and Organizational Memories”, University of the Aegean, Ai-Lab, Samos, June 2001

## **5.2 Reviewing/Editing responsibilities**

### **Editorials**

- Guest Editor: a special issue of Big Data and Cognitive Computing (ISSN 2504-2289) on Semantic Web Technologies and Recommender Systems, MDPI ([https://www.mdpi.com/journal/BDCC/special\\_issues/semweb\\_tech](https://www.mdpi.com/journal/BDCC/special_issues/semweb_tech))
- Editorial board: Journal of Artificial Intelligence Advances (ISSN: 2661-3220 Online)
- Executive Editor: Journal of Internet of Things and Cyber-Assurance (ISSN: 2059-7975 Online)
- Editorial board: Konstantinos Kotis and John Soldatos (eds), *UBICOMM 2019: The Thirteenth International Conference on Mobile Ubiquitous Computing, Systems, Services and Technologies*, Sept. 22 - 26 2019, Porto, Portugal, ISBN: 978-1-61208-736-8.

### **Reviewer in journals (incl.):**

Journal of Data and Knowledge Eng., The Knowledge Engineering Review (Cambridge), Expert Systems With Applications (ESWA), Multimodal Technologies and Interaction (MDPI), Sensors (MDPI), Social Network Analysis and Mining (SNAM, Springer), ACM Transactions in IoT, Artificial Intelligence Advances Journal, Knowledge Engineering Review Journal, International Journal of Metadata, Semantics and Ontologies (IJMSO), The Computer Journal, AI Review journal, IEEE Intelligent Systems, IEEE TKDE, the IEEE Transactions on Industrial Informatics, KAIS (Knowledge and Information Systems) Journal, Journal of Web Semantics (JWS), J.UCS - Special Issue in "Ontologies and their Applications", Encyclopedia of Data Warehousing and Mining - 2nd Edition.

More in Publons: <https://publons.com/researcher/2870237/konstantinos-kotis/>

### **Reviewer in conferences (incl.):**

International Conference on Artificial Intelligence Applications and Innovations (AIAI), International Joint Conference on Knowledge Discovery, Knowledge Engineering and Knowledge Management (KEOD), International Conference on Research Challenges in Information Science (RCIS), International Conference on Real-Time Intelligent Systems (RTIS), International Conference on Emerging Ubiquitous Systems and Pervasive Networks (EUSPN), International Joint Conference of AI, ANT, UBIKOM, IEEE Industrial Systems, International Conference on Knowledge Science, Engineering and Management (KSEM), AAI-15, ICTAI-2014, AI-IoT 2018, The First International Workshop on Extending Seamlessly to the Internet of Things (esIoT-2012), International Conference on Complex, Intelligent, and Software Intensive Systems (CISIS), IADIS conference on WWW/Internet, IEEE International Conference on Tools with Artificial Intelligence (ICTAI), Workshop of Ontologies And Their Applications (Brazil), AI Conference, SGAI International Conference on Innovative Techniques and Applications of Artificial Intelligence (Cambridge, UK), Workshop of Ontology Alignment and Visualization (OnAV08), World Summit on the Knowledge Society, Workshop on Community- based Evolution of Knowledge-intensive Systems

### 5.3 Thesis/Dissertation Supervision/co-Supervision

Τίτλος/Title	Φοιτητής/ Student	Έτος/ Year	Επίπεδο/ Level	Ρόλος/ Role
AI dialogue and QA softbots (AI chatbots) in the Digital Culture domain / Λογισμικά διαλόγου και ερωτο-απαντήσεων με TN (AI chatbots) στο χώρο του ψηφιακού πολιτισμού. Link(s): [thesis abstract] [Thesis] [Presentation] [System] <a href="#">[related paper A]</a> <a href="#">[related paper B]</a>	Βαριτιμιιάδης Σάββας	2019	PhD	Supervisor /Επίβλεψη
Modelling and Visual Analytics of Immigration Semantic Trajectories in local societies and cultures / Μοντελοποίηση και Οπτική Ανάλυση Μεταναστευτικών Σημασιολογικών τροχιών στις τοπικές κοινωνίες και κουλτούρες.	Καραθανάση Μαρία	2020	PhD	Supervisor /Επίβλεψη
Event Prediction based on semantic sentiment analytics of big data in social media networks / Πρόβλεψη γεγονότων μέσω σημασιολογικής συναισθηματικής αναλυτικής μεγάλων δεδομένων κοινωνικών δικτύων.	Θεοχαρόπουλος Χάρης	2020	PhD	Supervisor /Επίβλεψη
Semantic trajectory analytics and Recommendation systems / Ανάλυση Σημασιολογικών Τροχιών και Συστήματα Συστάσεων. Link(s): <a href="#">[related paper A]</a>	Αγγελής Σωτήρης	2020	PhD	Supervisor /Επίβλεψη
Revealing Common Mechanisms Between Neurodegenerative Diseases and Artistic Behaviors Using Fuzzy Knowledge Representation.	Κωλέτης Α.	2021	PhD	Supervisor /Επίβλεψη
Διαδίκτυο των Πραγμάτων και διαλειτουργικότητα μέσω σημασιολογικής αναπαράστασης γνώσης υπό τη μορφή οντολογιών για εφαρμογές έξυπνων πόλεων. Link(s): <a href="#">[related paper A]</a>	Πλιάτσιος Αντώνιος  Επιβλ.: Γκουμόπουλος Χ.	2019	PhD	Advisor/Τριμελή Επιτροπή
Εξόρυξη και ανάλυση πληροφορίας σε δημόσια έγγραφα με χρήση βαθιάς μηχανικής μάθησης και επεξεργασίας φυσικής γλώσσας	Αραμπατζής Γαβριήλ  Επιβλ.: Καρυδάκης Γ.	2020	PhD	Advisor/ Τριμελή Επιτροπή
Αναγνώριση αντικειμένων σε πίνακες τέχνης με την χρήση	Τροχίδης	2021	PhD	Advisor/ Τριμελή Επιτροπή

νευρωνικών δικτύων βαθιάς μάθησης	Επιβλ.: Τσεκούρας Γ.			
Semantic integration of cultural data from heterogeneous sources / Σημασιολογική ενοποίηση πολιτιστικών δεδομένων από ετερογενείς πηγές. Link(s): [ <a href="#">thesis abstract</a> ] [ <a href="#">Thesis</a> ] [ <a href="#">Presentation</a> ] (in Greek) [ <a href="#">System</a> ] [ <a href="#">related paper A</a> ]	Αγγελής Σωτήρης	2019	MSc	Supervisor / Επίβλεψη
Generate and publish open and linked cultural data for Android mobile apps / Δημιουργία και διάθεση ανοικτών και διασυνδεδεμένων πολιτιστικών δεδομένων για κινητές εφαρμογές Android. Link(s): [ <a href="#">Thesis</a> ] [ <a href="#">Presentation</a> ]	Μουζάκης Παναγιώτης	2019	MSc	Supervisor / Επίβλεψη
Design and development of educational AI chatbot for museums / Σχεδίαση και ανάπτυξη εκπαιδευτικού λογισμικού συζητήσεων (chatbot) με Τεχνητή Νοημοσύνη (TN) στον πολιτισμό. Link(s): [ <a href="#">System</a> ] [ <a href="#">Thesis</a> ] [ <a href="#">Presentation</a> ]	Μάγαιρα Κ.- Πιπτού Δ.	2020	MSc	Supervisor / Επίβλεψη
Creation of searchable, open, interoperable, machine-readable, reliable and reusable digital content and data. The role of cultural heritage aggregators / Δημιουργία ευρέσιμου, ανοικτού, διαλειτουργικού, μηχαναγνώσιμου, αξιόπιστου και επαναχρησιμοποιήσιμου ψηφιακού περιεχομένου και δεδομένων. Ο ρόλος των συσσωρευτών πολιτιστικής κληρονομιάς. Link(s): [ <a href="#">System (DSpace)</a> ] [ <a href="#">System (SearchCulture.gr - EKT)</a> ] [ <a href="#">Thesis</a> ]	Κωστελίδου	2020	MSc	Supervisor / Επίβλεψη
Digitizing, documenting, semantically annotating and publishing cultural content in the Semantic Web / Ψηφιοποίηση, τεκμηρίωση, σημασιολογική περιγραφή και δημοσίευση πολιτιστικού περιεχομένου στον Σημασιολογικό Ιστό. Link(s): [ <a href="#">LOD</a> ] [ <a href="#">Thesis</a> ] [ <a href="#">Presentation</a> ] [ <a href="#">related paper</a> ]	Μαρίνη - Χονδρογιάννη	2020	MSc	Supervisor / Επίβλεψη
Σημασιολογική Διαλειτουργικότητα Έξυπνων Πολιτιστικών Χώρων / Semantic Interoperability of Smart Cultural Spaces.	Ζαχίλα Κωνσταντίνα	2020	MSc	Supervisor / Επίβλεψη

Link(s): [System] [Thesis] [Presentation] <a href="#">[related paper A]</a> <a href="#">[related paper B]</a>				
Δίκαιη Αναπαράσταση Γνώσης σε εφαρμογές επιτήρησης / Fair Knowledge Representation in surveillance applications. Link(s): [System] [Thesis] [Presentation] <a href="#">[related paper A]</a> <a href="#">[related paper B]</a>	Παπαρίδης Βαγγέλης	2020	MSc	Supervisor /Επίβλεψη
e-Gov 3.0: E-gov, CP systems and IoT.	Σάμιος Θ.	2021	MSc	Supervisor /Επίβλεψη
Semantic Modeling and Simulation of cyber-security and interoperability issues in swarms of unmanned marine vehicles (UMVs).	Σταυρινός Σ.	2021	MSc	Supervisor /Επίβλεψη
Semantic trajectories' analytics and visualization in swarms of unmanned aerial vehicles (UAVs).	Σουλαρίδης Α.	2021		Supervisor /Επίβλεψη
Smart mobile app: Silence bot / Έξυπνη εφαρμογή για κινητές συσκευές: Bot σίγασης.	Ζώτος Θεodorής, Τσοχαταρίδης Σωκράτης	2020	BSc	Supervisor /Επίβλεψη
Content Management Systems (CMS) for cultural content preservation and dissemination / Συστήματα Διαχείρισης Περιεχομένου για την διάσωση και διάδοση πολιτιστικού περιεχομένου. Link(s): <a href="#">[System]</a>	Κοντελής Κων/νος, Τρούμπη Ιωάννα	2020	BSc	Supervisor /Επίβλεψη
Smart mobile FB app: Family bot / Έξυπνη εφαρμογή FB για κινητές συσκευές: Bot οικογένειας.	Ιωσηφίδης Κυριάκος	2020	BSc	Supervisor /Επίβλεψη
Creating Semantic Web of Data sites with JSON-LD / Δημιουργία Ιστόσπλων στον Σημασιολογικό Ιστό των Δεδομένων, με χρήση JSON-LD. Link(s): <a href="#">[System]</a> <a href="#">[Thesis]</a> <a href="#">[Presentation]</a> <a href="#">[related paper]</a>	Μαρκόπουλος Θανάσης	2020	BSc	Supervisor /Επίβλεψη
Beyond traditional Web Search: Semantic Web search, Dataset Search, Culture Search, IoT Search engines.	Σταύρου Άννα	2020	BSc	Supervisor /Επίβλεψη
Social Internet of Things (SIoT) and smart objects / Κοινωνικό Διαδίκτυο των Πραγμάτων και έξυπνα αντικείμενα.	Κωνσταντινίδου Στελίνα	2020	BSc	Supervisor /Επίβλεψη

#### Before 2019 (UoA, Dept. of ICSD):

- “Semantic Information System for the trading of resources and services”, MSc thesis
- “Semantic Matchmaking of WSDL Web Services”, MSc thesis
- “Automatic Multiple-Choice Questions construction using domain ontologies”, MSc thesis

- “Semantic Web Portal Technology: a case study using MScProgram.owl ontology”
- “Semantic Wikis for Web-based Collaborative Ontology engineering”

#### 5.4 Other Academic and professional activities

- Lecturing at SenZations Summer School on Internet of Things - SenZations2020, SCHOOL OF SOCIAL SCIENCES - Department of Cultural Technology and Communication, 29 Jun 2020 to 3 Jul 2020, Lesvos
- i-Lab representative in Time Machine Organization (TMO) and Time Machine H2020 CSA project (Big Data of the Past).
- Coordinator and Co-chair of UBI COMM 2019 special track on “Semantic Web and IoT”
- Coordinator and Co-chair of International Conference on Emerging Ubiquitous Systems and Pervasive Networks, “Semantic Web” track, EUSPN 2016 London
- Coordinator and co-chair of the 1st International Workshop in “Intelligent Systems for Environmental (Knowledge) Engineering and Ecoinformatics” (i-SEEK'09)
- Co-organizer of OAEI contest 2011 track ‘Oriented Matching’
- Vocational training teacher - EKEPIS Certified Trainer in IT since 2001, Greece
- High School teacher in IT, 1997-1999, Samos, Greece

## 6. List of publications

### 6.1 In Journals

1. Santipantakis, G., Kotis, K., Glenis, A., Vouros, G. A., Doukeridis, C., Vlachou, A., RDF-Gen: Generating RDF Triples from Big Data Sources, Knowledge and Information Systems (KAIS) journal, vol. 64, issue 11, 2985–3015, **2022**, Springer. <https://doi.org/10.1007/s10115-022-01729-x>  
Impact factor: 3.161 (5-year), CiteScore Scopus: NA
2. Koletis A, Markopoulos A, Kotis K. Discovering Semantic Relations between Neurodegenerative Diseases and Artistic Behaviors. *Challenges*. 2022; 13(2):36. <https://doi.org/10.3390/challe13020036>  
Impact factor: NA, CiteScore Scopus: NA
3. Mulita, F., Verras, G., Anagnostopoulos, C-N., Kotis, K., A Smarter Health through the Internet of Surgical Things, Sensors, 22(12), 4577, **2022**, MDPI. <https://doi.org/10.3390/s22124577>  
Impact factor: 3.847, CiteScore Scopus: NA. Special Issue [IoT Multi Sensors](#))
4. Mageira, K., D. Pittou, A. Papasalouros, K. Kotis, P. Zangogianni, and A. Daradoumis, "Educational AI Chatbots for Content and Language Integrated Learning", Applied Sciences, vol. 12, issue 7, **2022**. <https://doi.org/10.3390/app12073239>  
Impact factor: 2.679, CiteScore Scopus: 3.  
(Collection: [The Application and Development of E-learning](#))
5. Angelis S., Kotis K., Mouzakis P., [Interlinking and enrichment of disparate organisational data with LOD at applications run-time](#). International Journal of



Metadata, Semantics and Ontologies, 15(3), pp.204-219 **2021**.

Impact factor: N/A, CiteScore Scopus: 1

6. Angelis, S.; Kotis, K.; Spiliotopoulos, D. Semantic Trajectory Analytics and Recommender Systems in Cultural Spaces. *Big Data Cogn. Comput.* **2021**, *5*, 80. <https://doi.org/10.3390/bdcc5040080>

Impact factor: NA, CiteScore Scopus: 5.3.

(Special Issue: [Semantic Web Technology and Recommender Systems](#))

7. Zachila, K.; Kotis, K.; Papparis, E.; Ladikou, S.; Spiliotopoulos, D. Facilitating Semantic Interoperability of Trustworthy IoT Entities in Cultural Spaces: The Smart Museum Ontology. *IoT* **2021**, *2*(4), pp.741-760. <https://doi.org/10.3390/iot1010000>

New Journal (first Issue)

8. Varitimidis, S.; Kotis, K.; Pittou, D.; Konstantakis, G. Graph-Based Conversational AI: Towards a Distributed and Collaborative Multi-Chatbot Approach for Museums. *Appl. Sci.* **2021**, *11*(19), 9160. <https://doi.org/10.3390/app11199160>

Impact factor: 2.679, CiteScore Scopus: 3.0.

(Special Issue [Advanced Technologies in Digitizing Cultural Heritage](#))

9. Kotis K., Angelis S., Chondrogianni M., Marini E., "Children's art museum collections as Linked Open Data", *International Journal of Metadata, Semantics and Ontologies*, 15(1), pp. 60-70, 08/2021 <http://doi.org/10.1504/IJMSO.2021.10040249>

Impact factor: N/A, CiteScore Scopus: 1

10. Sikelis K, Tsekouras GE, Kotis K. Ontology-Based Feature Selection: A Survey. *Future Internet.* **2021**; *13*(6):158. <https://doi.org/10.3390/fi13060158>

Impact factor: N/A, CiteScore Scopus: 4.1

(Special Issue [Software Engineering and Data Science](#))

11. Kotis K., Zachila K., Papparis E., "Machine Learning meets the Semantic Web", *Artificial Intelligence Advances*, *3*(1), **2021** <https://doi.org/10.30564/aia.v3i1.3178>.

Impact factor: N/A, CiteScore Scopus: N/A.

12. Tsekouras, G.; Rigos, A.; Chatzistamatis, S.; Tsimikas, J.; Kotis, K.; Caridakis, G.; Anagnostopoulos, C. A Novel Approach to Image Recoloring for Color Vision Deficiency. *Sensors* **2021**, *21*(8), 2740; <https://doi.org/10.3390/s21082740>.

Impact factor: 3.576, CiteScore Scopus: N/A.

(Special Issue [Machine Learning and AI for Sensors](#))

13. Kalloniatis, Ch., Diamantopoulou, V., Kotis, K., Lyvas, Ch., Maliatsos, K., Gay M., Kanatas, A. and Lambrinouidakis, C., "Towards the design of an assurance framework for increasing security and privacy in Connected Vehicles", *Int. J. of*

Internet of Things and Cyber-Assurance, vol. 1, issue 3, pp. 244-266, **2020**.  
<https://doi.org/10.1504/IJITCA.2020.10034103>.

Impact factor: N/A, CiteScore Scopus: N/A.

14. Pliatsios A., Goumopoulos C., Kotis K., “A Review on IoT Frameworks Supporting Multi-Level Interoperability–The Semantic Social Network of Things Framework”, *International Journal on Advances in Internet Technology*, ISSN 1942-2652, vol.13, no.1&2, **2020**, pp. 46-64.

Impact factor: N/A, CiteScore Scopus: N/A.

15. Kotis, K.; Spiliotopoulos, D.; Papasalouros, A. Intelligent Collaborative Authoring of Place-Based, Cross-Cultural and Media-Rich Experiences. *Challenges* **2020**, *11*, *1*, pp. 10. <https://doi.org/10.3390/challe11010010>

Impact factor: N/A, CiteScore Scopus: N/A.

16. Vassilakis, C.; Kotis, K.; Spiliotopoulos, D.; Margaris, D.; Kasapakis, V.; Anagnostopoulos, C.-N.; Santipantakis, G.; Vouros, G.A.; Kotsilieris, T.; Petukhova, V.; Malchanau, A.; Lykourantzou, I.; Helin, K.M.; Revenko, A.; Gligoric, N.; Pokric, B. A Semantic Mixed Reality Framework for Shared Cultural Experiences Ecosystems. *Big Data Cogn. Comput.* **2020**, *4*, *6*.  
<https://doi.org/10.3390/bdcc4020006>

Impact factor: N/A, CiteScore Scopus: 5.3.

(This article belongs to the Special Issue [Big Data Analytics for Cultural Heritage](#))

17. Kotis, K., Vouros, G., & Spiliotopoulos, D. (2020). Ontology engineering methodologies for the evolution of living and reused ontologies: Status, trends, findings and recommendations. *The Knowledge Engineering Review*, *35*, E4. **2020**. <https://doi.org/10.1017/S0269888920000065>

Impact factor: 1.115, CiteScore Scopus: N/A.

18. Kotis, K., “ARTIST - A reAl-time low-effoRt mulTi-entity Interaction System for creaTing reusable and optimized MR experiences”, *Research Ideas and Outcomes*, *5*: e36128. **2019** <https://doi.org/10.3897/rio.5.e36128>

Impact factor: N/A, CiteScore Scopus: N/A.

19. Kotis, K., I. Athanasakis, and G. A. Vouros, “Semantically Enabling IoT Trust to Ensure and Secure Deployment of IoT Entities,” *Int. J. of Internet of Things and Cyber-Assurance*, vol. 1, issue 1: Inderscience, pp. 3-21, **2018**

Impact factor: N/A, CiteScore Scopus: N/A

20. Santipantakis, G., K. Kotis, and G. A. Vouros, "OBDAIR: Ontology-Based Distributed framework for Accessing, Integrating and Reasoning with data in disparate data sources", *Expert Systems with Applications*, vol. 90, pp. 464 - 483, **2017**, <https://doi.org/10.1016/j.eswa.2017.08.031>

Impact factor: 6.954, CiteScore Scopus: 12.7

21. Kotis, K., and A. Katasonov, “Semantic Interoperability on the Internet of Things: The Semantic Smart Gateway Framework,” *International Journal of*

Distributed Systems and Technologies (IJST), vol. 4, issue 3, pp. 47-69, **2013**, <https://doi.org/10.4018/jdst.2013070104>

Impact factor: 0.92, CiteScore Scopus: N/A

22. Kotis, K., A. Papasalouros, G. A. Vouros, N. Pappas, and K. Zoumpatianos, "Enhancing the Collective Knowledge for the Engineering of Ontologies in Open and Socially Constructed Learning Spaces," *Journal of Universal Computer Science*, vol. 17, issue 12, pp. 1710—1742, **2012**, <http://dx.doi.org/10.3217/jucs-017-12-1710>

Impact factor: 0.91, CiteScore Scopus: N/A

23. K. Kotis, A. Papasalouros, E. Maragkoudakis, "Mining Query Logs for Learning Useful Ontologies: an Incentive to SW Content Creation," *International Journal for Knowledge Engineering and Data Mining (IJKEDM)*, vol. 1, issue 4, pp. 303-330, **2011**

Impact factor: N/A, CiteScore Scopus: N/A

24. S. Karetsos, D. Charalampopoulos, K. Kotis, "An Ontology-based framework for Authoring Tools in the Domain of Sustainable Energy Education," *International Journal of Agricultural and Environmental Information Systems (IJAEIS)*, Special issue on Intelligent Systems for Engineering Environmental Knowledge, vol. 2, issue 1, **2011**

Impact factor: N/A, CiteScore Scopus: N/A

25. A. Papasalouros, K. Kotis, K. Kanaris, "Automatic generation of tests from domain and multimedia ontologies," *Interactive Learning Environments journal*, Special issue on "Semantic Technologies for Multimedia-enhanced Learning Environments", vol. 19, issue 1: Taylor & Francis, pp. 5-23, **2011**, <https://doi.org/10.1080/10494820.2011.528704>

Impact factor: 3.928, CiteScore Scopus: 5.1

26. G. Vouros, A. Papasalouros, K. Tzonas, A. Valarakos, K. Kotis, P. Valduriez, P. Lamarre, H. Quiané-Ruiz, "A Semantic Information System for Services and Traded Resources in Grid e-Markets," *Future Generation Computer Systems*, Elsevier, Vol. on-line, **2010**, <https://doi.org/10.1016/j.future.2010.03.004>

Impact factor: 7.187, CiteScore Scopus: 13.3

27. A. Papasalouros, K. Kotis, N. Nikitakos, "Towards an Intelligent tutoring system for Environmental Decision Makers," *Environmental Engineering and Management Journal (EEMJ)*, Special Issue on Artificial Intelligence Applications in Environmental Protection, Technical University of Iasi, Vol. 9, No. 2, pp. 197-204, **2010**

Impact factor: N/A, CiteScore Scopus: N/A

28. M. Lanzemberger, J. Sampson, H. Kargl, M. Wimmer, C. Conroy, D. O'Sullivan, D. Lewis, R. Brennan, J. Ángel R. Gargantilla, A. Gómez-Pérez, F. Fürst, F. Trichet, J. Euzenat, A. Polleres, F. Scharffe, K. Kotis, "Making Ontologies Talk: Knowledge Interoperability in the Semantic Web," *IEEE Intelligent Systems* vol. 23, no. 6, pp. 72-85, 2008, <https://doi.org/10.1109/MIS.2008.108>

Impact factor: 3.405, CiteScore Scopus: 9

29. G. A. Vouros, A. Papasalouros, K. Kotis, A. Valarakos, K. Tzonas, X. Vilajosana, R. Krishnaswamy, N. Amara-Hachmi, "The Grid4All ontology for the retrieval of traded resources in a market-oriented Grid," Special issue on Web/Grid Information and Services Discovery and Management, Int. J. Web and Grid Services, vol. 4, no. 4, pp. 418-439, 2008, <https://doi.org/10.1504/IJWGS.2008.022545>

Impact factor: 7.135, CiteScore Scopus: 7.8

30. V. Spiliopoulos, K. Kotis, G. A. Vouros, "Semantic retrieval and ranking of SW documents using free-form queries," Int. J. Metadata, Semantics and Ontologies, vol. 3, no. 2, pp. 95-108, 2008, <https://doi.org/10.1504/IJMSO.2008.021888>

Impact factor: N/A, CiteScore Scopus: 1

31. K. Kotis, G. A. Vouros, K. Stergiou, "Towards Automatic Merging of Domain Ontologies: The HCONE-merge approach," Journal of Web Semantics (JWS), Elsevier, vol. 4, no.1, pp. 60-79, 2006 (Published Online First: 19 Okt. 2005) <https://doi.org/10.1016/j.websem.2005.09.004>

Impact factor: 1.897, CiteScore Scopus: 6.9

32. K. Kotis and G. A. Vouros, "Human-Centered Ontology Engineering: the HCOME Methodology," International Journal of Knowledge and Information Systems (KAIS), vol. 10, no. 1, pp.109-131, 2006 (Published Online First: 9 Sept. 2005), <https://doi.org/10.1007/s10115-005-0227-4>

Impact factor: 3.161, CiteScore Scopus: N/A

33. G. A. Vouros, E. Eumeridou, P. Tselios, K. Kotis, "Multilingual, Ontology-driven, Content-based Search and Retrieval of Information Items," Journal of Applied A.I., vol.19, no. 7, pp. 691-719, 2007, <https://doi.org/10.1080/08839510590967325>

Impact factor: 1.606, CiteScore Scopus: 2.8

## 6.2 In Books

1. K. Kotis and A. Papasalouros, "Automated Learning of Social Ontologies," Ontology Learning and Knowledge Discovery Using the Web: Challenges and Recent Advances, Wilson Wong; Wei Liu; Mohammed Bennamoun: IGI-Global, pp. 227-246 pp., 2011
2. K. Kotis and A. Papasalouros, "Learning of Social Ontologies in WWW: Key Issues, Experiences, Lessons Learned, and Future Directions," Applied Semantic Technologies: Using Semantics in Intelligent Information Processing, Vijayan Sugumaran and Jon Atle Gulla: Taylor & Francis, 2010
3. K. Kotis and G. A. Vouros, "Ontological tools: Requirements, Design Issues and Perspectives," Theory and Applications of Ontology (TAO), vol. Volume 2: Computer Applications: Springer, 2010
4. G. A. Vouros, A. Papasalouros, K. Kotis, A. Valarakos, K. Tzonas, S. Retalis, and R. Krishnaswamy, "Semantic discovery of resources and services in democratized grids," Handbook of Research on Social Dimensions of Semantic Technologies and Web Services, M. Manuela Cunha, Eva Oliveira,

Antonio Tavares & Luis Ferreira (Eds.), Information Science Reference, ISBN: 978-1-60566-650-1, 2009

5. K. Kotis, "Semantic Web Search: perspectives and key technologies," Encyclopaedia of Data Warehousing and Mining, 2nd Edition. John Wang (Ed.) Idea Group, 2008
6. K. Kotis and G. A. Vouros, "Semantic Integration and Interoperability among Portals," Encyclopaedia of Portal Technology and Applications. Arthur Tatnall (Ed.) Hershey, PA: Idea Group, 2007

### **6.3 In Conferences**

1. Eleftheriou, O., A. Dimara, K. Kotis, and C. - N. Anagnostopoulos, "Saving Energy with Comfort: A Semantic Digital Twin approach for Smart Buildings", Third International Workshop on Semantic Digital Twins (SeDiT 2022), co-located with the 19th European Semantic Web Conference (ESWC 2022), , Crete, 05/2022.
2. Soularidis, A., and K. Kotis, "Semantic modeling and reconstruction of drones' trajectories", 19th European Semantic Web Conference (ESWC 2022), Crete, 05/2022.
3. Moraitou, E., S. Angelis, K. Kotis, G. Caridakis, E. E. Papadopoulou, and N. Soulakellis, "Towards Engineering Drones' Semantic Trajectories as Knowledge Graphs", 5th International Workshop on Geospatial Linked Data (GeoLD 2022), co-located with the 19th European Semantic Web Conference (ESWC 2022), Crete, 05/2022.
4. Stavrinou, S., K. Kotis, and C. Kalloniatis, "Towards Semantic Modeling and Simulation of Cybersecurity on the Internet of Underwater Things", 18th International Conference on Artificial Intelligence Applications and Innovations (AIAI 2022), Crete, 05/2022.
5. Paparidis E. and Kotis K. (2021) Towards Engineering Fair Ontologies: Unbiasing a Surveillance Ontology, 2021 IEEE International Conference on Progress in Informatics and Computing (PIC), 2021, pp. 226-231, doi: 10.1109/PIC53636.2021.9687030.
6. Dimara A., Anagnostopoulos CN., Kotis K., Krinidis S., Tzouvaras D. (2021) BEMS in the Era of Internet of Energy: A Review. In: Maglogiannis I., Macintyre J., Iliadis L. (eds) Artificial Intelligence Applications and Innovations. AIAI 2021. IFIP Advances in Information and Communication Technology, vol 627. Springer, Cham. [https://doi.org/10.1007/978-3-030-79150-6\\_37](https://doi.org/10.1007/978-3-030-79150-6_37).
7. Zachila K., Kotis K., Dimara A., Ladikou S., Anagnostopoulos CN. (2021) Semantic Modeling of Trustworthy IoT Entities in Energy-Efficient Cultural Spaces. In: Maglogiannis I., Macintyre J., Iliadis L. (eds) Artificial Intelligence Applications and Innovations. AIAI 2021 IFIP WG 12.5 International Workshops. AIAI 2021. IFIP Advances in Information and Communication Technology, vol 628. Springer, Cham. [https://doi.org/10.1007/978-3-030-79157-5\\_30](https://doi.org/10.1007/978-3-030-79157-5_30).
8. Angelis S., Kotis K. (2021) Generating and Exploiting Semantically Enriched, Integrated, Linked and Open Museum Data. In: Garoufallou E., Ovalle-Perandones MA. (eds) Metadata and Semantic Research. MTSR 2020. Communications in Computer and Information Science, vol 1355. Springer, Cham. [https://doi.org/10.1007/978-3-030-71903-6\\_34](https://doi.org/10.1007/978-3-030-71903-6_34).
9. D. Spiliotopoulos, K. Kotis, C. Vassilakis, D. Margaris (2020), Semantics-Driven Conversational Interfaces for Museum Chatbots. In: Rauterberg M. (eds) Culture and Computing. HCII 2020. Lecture Notes in Computer Science, vol 12215. Springer, Cham. [https://doi.org/10.1007/978-3-030-50267-6\\_20](https://doi.org/10.1007/978-3-030-50267-6_20).
10. S. Varitimadis, K. Kotis, D. Spiliotopoulos, C. Vassilakis, D. Margaris (2020), "Talking" Triples to Museum Chatbots. In: Rauterberg M. (eds) Culture and Computing. HCII 2020. Lecture Notes in Computer Science, vol 12215. Springer, Cham. [https://doi.org/10.1007/978-3-030-50267-6\\_22](https://doi.org/10.1007/978-3-030-50267-6_22).

11. S. Varitimiadis, K. Kotis, A. Skamagis, A. Tzortzakakis, G. Tsekouras, D. Spiliotopoulos, "Towards implementing an AI chatbot platform for museums", International Conference on Cultural Informatics, Communication & Media Studies, C. Kalloniatis, C-N. Anagnostopoulos, D. Papageorgiou, A. Kitsiou, M. Sideri (eds), eProceedings, Vol 1., No. 1, National Documentation Center, ISSN: 2654-1866, 2020. DOI: <http://dx.doi.org/10.12681/cicms.2732>
12. A. Pliatsios, C. Goumopoulos, and K. Kotis, "Interoperability in IoT: A vital key factor to create the "Social Network" of Things", Thirteenth International Conference on Mobile Ubiquitous Computing, Systems, Services and Technologies, UBIComm 2019, Porto, IARA, 09/2019. (*Best Paper Award*)
13. K. Kotis, "Automating the Semantic Labeling of Stream Data", Thirteenth International Conference on Mobile Ubiquitous Computing, Systems, Services and Technologies (UBIComm 2019), Porto, IARA, 09/2019.
14. D. Spiliotopoulos, D. Margaris, C. Vassilakis, V. Petukhova and K. Kotis, "A Mixed-reality Interaction-driven Game-based Learning Framework", The 11th International Conference on Management of Digital EcoSystems (MEDES'19), Cyprus, ACM Digital Library, 11/2019.
15. D. Spiliotopoulos, C. Vassilakis, D. Margaris, and K. Kotis, "A Methodology for Generated Text Annotation for High Quality Speech Synthesis", 10th International Conference on Information, Intelligence, Systems and Applications (IISA2019), Rion-Patra, 07/2019.
16. K. Kotis, and G. A. Vouros, "Trust Semantics in IoT Entities' Deployment," in Proc. Workshop on Artificial Intelligence and Internet of Things (AI-IoT), 9th Hellenic Conference on Artificial Intelligence (SETN 2016), 05/2016.
17. G. Santipantakis, K. Kotis, and G. A. Vouros, "Accessing and Reasoning with Data from Disparate Data Sources Using Modular Ontologies and OBDA," in Proc. SEMANTICS, 2015.
18. G. Santipantakis, K. Kotis, and G. A. Vouros, "Ontology-Based Data Integration for Event Recognition in the Maritime Domain", in Proc. The 5th International Conference on Web Intelligence, Mining and Semantics (WIMS'15): ACM, 2015.
19. G. Santipantakis, K. Kotis, and G. A. Vouros, "Ontology-based Data Sources' Integration for Maritime Event Recognition," in Proc. 1st Workshop on Modeling, Computing and Data Handling for Marine Transportation (MCDMT 2015), The 6th International Conference on Information, Intelligence, Systems and Applications (IISA2015), Corfu, Greece, 2015
20. K. Kotis, A. Katasonov, and J. Leino, "ASE results for OAEI 2012," in Proc. Seventh International Workshop on Ontology Matching, ISWC 2012, Boston, CEUR-WS, 11/2012.
21. K. Kotis, A. Katasonov, and J. Leino, "AUTOMSV2 results for OAEI 2012," in Proc. Seventh International Workshop on Ontology Matching, ISWC 2012, Boston, CEUR-WS, 11/2012
22. K. Kotis, A. Katasonov, and J. Leino, "Aligning Smart and Control Entities in IoT," in Proc. 12th International Conference, NEW2AN 2012 and 5th Conference on Internet of Things and Smart Spaces, ruSMART 2012, LNCS 7469, Springer, pp. 39-50, St. Petersburg, 2012
23. K. Kotis & A. Katasonov, "Semantic Interoperability in the Web of Things: The Smart Gateway Framework," in Proc. 5th International Workshop on Frontiers in Complex, Intelligent and Software Intensive Systems, CISIS 2012, Palermo, Italy, 2012
24. K. Zoumpatianos, A. Papasalouros, and K. Kotis, "Semantic Web Rules for Automated Assessment in Intelligent Tutoring Systems," in Proc. The 24th Florida Artificial Intelligence Research Society Conference (FLAIRS-24), Special Track on Ontologies and Social Semantic Web for Intelligent Educational Systems (SWEL), Florida, USA, 2011

25. K. Kotis, P. Alexopoulos, and A. Papasalouros "Towards a Framework for Trusting the Automated Learning of Social ontologies," in Proc. Knowledge Science, Engineering and Management (KSEM), Belfast, 2010
26. G. Anadiotis, P. Alexopoulos, K. Mpaslis, A. Zosakis, K. Kafentzis, and K. Kotis, "Facilitating Dialogue - Using Semantic Web Technology for eParticipation," in Proc. Extended Semantic Web Conference (ESWC), Crete, 2010
27. K. Kotis, A. Papasalouros, "Learning useful kick-off ontologies from Query Logs," in Proc. 4th international conference CISIS, Krakow, 2010
28. K. Kotis, A. Papasalouros, M. Maragoudakis, "Mining Web queries to boost semantic content creation," in Proc. IADIS conference WWW/Internet, Rome 2009
29. K. Kotis, A. Papasalouros, G. A. Vouros, et al, "e-Class in Ontology Engineering: integrating Ontologies to Argumentation and Semantic Wiki technology," in Proc. Workshop on Intelligent and Innovative Support for Collaborative Learning Activities (WIISCOLA), 8th International Conference on Computer Supported Collaborative Learning, Rhodes, 2009
30. K. Kotis, A. Papasalouros, N. Nikitakos, "Supporting Decision Making in Maritime Environmental Protection with a Knowledge-based Education and Awareness Approach," in Proc. Artificial Intelligence Applications in Environmental Protection Workshop, collocated with 5th IFIP Conference on Artificial Intelligence Applications and Innovations (AIAI) 23-25 April, Thessaloniki, Greece, 2009
31. G. A. Vouros, A. Valarakos, and K. Kotis, "Uncovering WSDL Specifications' Data Semantics," in Proc. 2nd International Workshop on Service Matchmaking and Resource Retrieval (SMR2), International Semantic Web Conference (ISWC 2008), Germany, 2008
32. G. A. Vouros, F. Dimitrokalis, and K. Kotis, "Look Ma, No Hands: Supporting the semantic discovery of services without ontologies," in Proc. 2nd International Workshop on Service Matchmaking and Resource Retrieval (SMR2), International Semantic Web Conference (ISWC 2008), Germany, 2008
33. K. Kotis, "On Supporting HCOME-3O Ontology Argumentation using Semantic Wiki Technology," in Proc. OTM 2008 Workshops, Springer-Verlag Berlin Heidelber, LNCS 5333, pp. 193–199, 2008
34. A. Papasalouros, K. Kotis, K. Kanaris, "Automatic generation of multiple-choice questions from domain ontologies," in Proc. IADIS e-Learning 2008 (eL 2008) conference, Amsterdam, 2008
35. K. Kotis and Monika Lanzenberger, "Ontology Matching: current status, dilemmas and future challenges," in Proc. Ontology Alignment and Visualization Workshop (OnAV08), CISIS 2008 Conference, IEEE Computer Society, 2008
36. K. Kotis, G. A. Vouros, A. Valarakos, A. Papasalouros, K. Tzonas, X. Vilajosana, R. Krishnaswamy, N. Amara-Hachmi, "The Grid4All ontology for the retrieval of traded resources in a market-oriented Grid," in Proc. Web/Grid Information and Services Discovery Workshop, CISIS 2008 Conference, IEEE Computer Society, 2008
37. G. A. Vouros, K. Kotis, C. Chalkiopoulos, N. Lelli, "The HCOME-3O Framework for Supporting the Collaborative Engineering of Evolving Ontologies," in Proc. ESOE 2007 International Workshop on Emergent Semantics and Ontology Evolution, International Semantic Web Conference (ISWC 2007), November 12th, Busan, Korea, 2007
38. A. Valarakos, V. Spiliopoulos, K. Kotis, G. Vouros, "AUTOMS-F: A Java Framework for Synthesizing Ontology Mapping Methods," in Proc. I-KNOW 2007 Conference, Special Track on Knowledge Organization and Semantic Technologies 2007 (KOST '07), Graz, September 2007
39. K. Kotis, A. Valarakos, G. Vouros, "AUTOMS: Automating Ontology Mapping through Synthesis of Methods," in Proc. OAEI (Ontology Alignment Evaluation Initiative) 2006 contest, Ontology Matching International Workshop,

- International Semantic Web Conference (ISWC'06), Atlanta USA. Also in CEUR-WS.org/Vol. 225, ISSN 1613-0073, 2006
40. K. Kotis, G. Vouros, "Towards Semantic Web Documents Retrieval through Ontology Mapping: Preliminary Results," in Proc. 1st Asian Semantic Web Conference (ASWC 2006), Workshop on Web Search Technology - from Search to Semantic Search, Beijing, 2006
  41. K. Kotis, "Using simple ontologies to build personal Webs of knowledge," in Proc. 25th International Conference of the British Computer Society, SGAI, Cambridge, 2005
  42. G. Vouros and K. Kotis, "Extending HCONE-merge by approximating the intended interpretations of concepts iteratively," in Proc. 2nd European Semantic Web Conference, Heraklion, Crete May 29 – June 2005
  43. K. Kotis, G. A. Vouros, Jerónimo Padilla Alonso, "HCOME: tool-supported methodology for collaboratively devising living ontologies," in Proc. 2nd International Workshop in Semantic Web and Databases Workshop (SWDB), VLDB'04, Toronto Canada, August 29-30, 2004.
  44. K. Kotis, G. Vouros, K. Stergiou, "Capturing Semantics towards Automatic Coordination of Domain Ontologies," in Proc. Artificial Intelligence: Methodology, Systems, and Applications, 11th International Conference, AIMSA 2004, Varna, Bulgaria, September 2-4, 2004
  45. K. Kotis, G. Vouros, "HCONE approach to Ontology Merging," in Proc. The Semantic Web: Research and Applications, First European Semantic Web Symposium, ESWS'04, Heraklion, Crete, Greece, May 10-12, 2004
  46. K. Kotis, G. Vouros, "Human Centered Ontology Management with HCONE," in Proc. Ontologies and Distributed Systems Workshop (ODS'03) in IJCAI'03 conference, Acapulco, 2003
  47. G. Vouros, K. Kotis, P. Tselios, "Retrieval and Exploration of Terminological Knowledge over the World Wide Web," in Proc. Computational Lexicography and Multimedia Dictionaries (COMLEX), Achaia, Greece, in 2000

#### **6.4 Research monographs (from the list of publications)**

1. Kotis, K. (2021). D-h-index: a linked data quality metric. Academia Letters, Article 2903. <https://doi.org/10.20935/AL2903>
2. Kotis, K. (2021). Artificial General Intelligence and Creative Economy. Academia Letters, <https://doi.org/10.20935/AL260>.
3. Kotis, K., ARTIST - A real-time low-effort mulita-entity Interaction System for creating reusable and optimized MR experiences, Research Ideas and Outcomes, 5: e36128, 2019, <https://doi.org/10.3897/rio.5.e36128>
4. Kotis, K., Automating the Semantic Labeling of Stream Data, Thirteenth International Conference on Mobile Ubiquitous Computing, Systems, Services and Technologies (UBICOMM 2019), Porto, IARA, 09/2019
5. Kotis, K., On Supporting HCOME-3O Ontology Argumentation using Semantic Wiki Technology, in Proc. OTM 2008 Workshops, Springer-Verlag Berlin Heidelberg, LNCS 5333, pp. 193–199, 2008
6. Kotis, K., Using simple ontologies to build personal Webs of knowledge, in Proc. 25th International Conference of the British Computer Society, SGAI, Cambridge, 2005

#### **6.5 Other publications**

1. Paparidis E. and Kotis K., Knowledge Graphs and Machine Learning in biased C4I applications, arXiv:2106.09258, 2021.
2. Sikelis K., Tsekouras G., Kotis K. Ontology-based Feature Selection: A Survey, arXiv: 2104.07720, 2021



3. Chondrogianni Maria, Marini Efstathia, Angelis Sotiris, & Kotis Konstantinos. (2021). Greek Children Art Museum dataset (Version 1) [Data set]. Zenodo. <http://doi.org/10.5281/zenodo.4425440>.
4. ENISA: Kalloniatis Christos (University of the Aegean), Costas Lambrinouidakis (University of Piraeus), Konstantinos Kotis (University of Piraeus), Prokopios Drogkaris (ENISA), Towards a framework for policy development in cybersecurity, March 14, 2019, ISBN 978-92-9204-282-0, DOI 10.2824/453043.
5. Kotis, K., I. Athanasakis, and G. A. Vouros, Semantic Integration & Single-Site Opening of Multiple Governmental Data Sources, : arXiv:1407.0481, 2014.

## **6.6 Books**

1. Semantic Web for the Working Ontologist, G.A Vouros, K. Kotis, G. Santipantakis. <https://www.disigma.gr/simasiologikos-istos.html> Greek version of the book "[Semantic Web for the Working Ontologist: Effective Modeling in RDFS and OWL](#)", by Dean Allemang, James Hendler.