Michel Dumontier

List of Publications by Year
in descending order

163 papers	13,678 citations	87888 38 h-index	27406 106 g-index
189 all docs	189 docs citations	189 times ranked	24767 citing authors

#	Article	IF	Citations
1	Prediction of illness remission in patients with Obsessive-Compulsive Disorder with supervised machine learning. Journal of Affective Disorders, 2022, 296, 117-125.	4.1	2
2	A formalization of one of the main claims of â€œThe FAIR Guiding Principles for scientific data management and stewardshipâ€•by Wilkinson et al. 20161. Data Science, 2022, , 1-4.	0.9	0
3	Semantic modelling of common data elements for rare disease registries, and a prototype workflow for their deployment over registry data. Journal of Biomedical Semantics, 2022, 13, 9.	1.6	11
4	BioSimulators: a central registry of simulation engines and services for recommending specific tools. Nucleic Acids Research, 2022, 50, W108-W114.	14.5	11
5	Progress toward a universal biomedical data translator. Clinical and Translational Science, 2022, 15, 1838-1847.	3.1	17
6	Biolink Model: A universal schema for knowledge graphs in clinical, biomedical, and translational science. Clinical and Translational Science, 2022, 15, 1848-1855.	3.1	38
7	Authorsâ€™ Response to Peer Reviews of â€œRepresenting Physician Suicide Claims as Nanopublications: Proof-of-Concept Study Creating Claim Networksâ€• Jmirx Med, 2022, 3, e40158.	0.4	0
8	Representing Physician Suicide Claims as Nanopublications: Proof-of-Concept Study Creating Claim Networks. Jmirx Med, 2022, 3, e34979.	0.4	7
9	Finding the Evidence Base Using Citation Networks: Do 300 to 400 US Physicians Die by Suicide Annually?. Journal of General Internal Medicine, 2021, 36, 1129-1131.	2.6	6
10	Knowledge Graph Completeness: A Systematic Literature Review. IEEE Access, 2021, 9, 31322-31339.	4.2	26
11	A qualitative-computational cataloguing of the EU-level public research and innovation portfolio of clean energy technologies (2014â€“2020). Current Research in Environmental Sustainability, 2021, 3, 100084.	3.5	1
12	InContext: curation of medical context for drug indications. Journal of Biomedical Semantics, 2021, 12, 2.	1.6	1
13	Semantic micro-contributions with decentralized nanopublication services. PeerJ Computer Science, 2021, 7, e387.	4.5	13
14	Privacy preserving distributed learning classifiers â€“ Sequential learning with small sets of data. Computers in Biology and Medicine, 2021, 136, 104716.	7.0	12
15	Relation extraction from DailyMed structured product labels by optimally combining crowd, experts and machines. Journal of Biomedical Informatics, 2021, 122, 103902.	4.3	2
16	Experience: Automated Prediction of Experimental Metadata from Scientific Publications. Journal of Data and Information Quality, 2021, 13, 1-11.	2.1	1
17	A systematic review on privacy-preserving distributed data mining. Data Science, 2021, 4, 121-150.	0.9	4
18	User-friendly Composition of FAIR Workflows in a Notebook Environment. , 2021, , .		3

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19	Distributed Analytics on Sensitive Medical Data: The Personal Health Train. Data Intelligence, 2020, 2, 96-107.	1.5	62
20	Blockchain for Privacy Preserving and Trustworthy Distributed Machine Learning in Multicentric Medical Imaging (C-DistriM). IEEE Access, 2020, 8, 183939-183951.	4.2	44
21	Introduction â€“ FAIR data, systems andÂanalysis. Data Science, 2020, 3, 1-2.	0.9	2
22	FAIR Principles: Interpretations and Implementation Considerations. Data Intelligence, 2020, 2, 10-29.	1.5	149
23	The Case for a Linked Data Research Engine for Legal Scholars. European Journal of Risk Regulation, 2020, 11, 70-93.	1.2	1
24	Considerations for the Conduction and Interpretation of FAIRness Evaluations. Data Intelligence, 2020, 2, 285-292.	1.5	14
25	A Minimal Information Model for Potential Drug-Drug Interactions. Frontiers in Pharmacology, 2020, 11, 608068.	3.5	8
26	BioHackathon 2015: Semantics of data for life sciences and reproducible research. F1000Research, 2020, 9, 136.	1.6	5
27	Ten simple rules for making training materials FAIR. PLoS Computational Biology, 2020, 16, e1007854.	3.2	24
28	Accelerating Discovery Science with an Internet of FAIR Data and Services. , 2020, , .		1
29	Towards FAIR protocols and workflows: the OpenPREDICT use case. PeerJ Computer Science, 2020, 6, e281.	4.5	10
30	A Novel Ensemble-Based Machine Learning Algorithm to Predict the Conversion From Mild Cognitive Impairment to Alzheimer's Disease Using Socio-Demographic Characteristics, Clinical Information, and Neuropsychological Measures. Frontiers in Neurology, 2019, 10, 756.	2.4	68
31	In-silico Prediction of Synergistic Anti-Cancer Drug Combinations Using Multi-omics Data. Scientific Reports, 2019, 9, 8949.	3.3	66
32	Evaluating FAIR maturity through a scalable, automated, community-governed framework. Scientific Data, 2019, 6, 174.	5.3	82
33	Putting FAIR Evidence into Practice. Journal of General Internal Medicine, 2019, 34, 1369-1369.	2.6	1
34	Evaluation of knowledge graph embedding approaches for drug-drug interaction prediction in realistic settings. BMC Bioinformatics, 2019, 20, 726.	2.6	58
35	A Privacy-Preserving Infrastructure for Analyzing Personal Health Data in a Vertically Partitioned Scenario. Studies in Health Technology and Informatics, 2019, 264, 373-377.	0.3	12
36	Adding Cognition to the Semanticscience Integrated Ontology. Edelweiss Psychiatry Open Access, 2019, , 4-13.	0.7	1

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37	Adding Cognition to the Semanticscience Integrated Ontology. Journal of Obesity and Diabetes, 2019, , 4-13.	0.8	0
38	Nanopublications: A Growing Resource of Provenance-Centric Scientific Linked Data. , 2018, , .		21
39	Predicting the need for a reduced drug dose, at first prescription. Scientific Reports, 2018, 8, 15558.	3.3	8
40	A design framework and exemplar metrics for FAIRness. Scientific Data, 2018, 5, 180118.	5.3	145
41	Advancing Discovery Science with FAIR Data Stewardship: Findable, Accessible, Interoperable, Reusable. Serials Librarian, 2018, 74, 39-48.	0.4	3
42	A Web API Ecosystem through Feature-Based Reuse. IEEE Internet Computing, 2018, 22, 29-37.	3.3	15
43	Columbia Open Health Data, clinical concept prevalence and co-occurrence from electronic health records. Scientific Data, 2018, 5, 180273.	5.3	41
44	Biotea: semantics for Pubmed Central. PeerJ, 2018, 6, e4201.	2.0	5
45	Developing a framework for digital objects in the Big Data to Knowledge (BD2K) commons: Report from the Commons Framework Pilots workshop. Journal of Biomedical Informatics, 2017, 71, 49-57.	4.3	24
46	smartAPI: Towards a More Intelligent Network of Web APIs. Lecture Notes in Computer Science, 2017, , 154-169.	1.3	26
47	Predicting biomedical metadata in CEDAR: A study of Gene Expression Omnibus (GEO). Journal of Biomedical Informatics, 2017, 72, 132-139.	4.3	11
48	Drug-drug interaction discovery and demystification using Semantic Web technologies. Journal of the American Medical Informatics Association: JAMIA, 2017, 24, 556-564.	4.4	28
49	Formalizing drug indications on the road to therapeutic intent. Journal of the American Medical Informatics Association: JAMIA, 2017, 24, 1169-1172.	4.4	8
50	Cloudy, increasingly FAIR; revisiting the FAIR Data guiding principles for the European Open Science Cloud. Information Services and Use, 2017, 37, 49-56.	0.2	232
51	Semantics-Powered Healthcare Engineering and Data Analytics. Journal of Healthcare Engineering, 2017, 2017, 1-3.	1.9	14
52	Data ScienceÂâ€“ Methods, infrastructure, and applications. Data Science, 2017, 1, 1-5.	0.9	8
53	Genuine semantic publishing. Data Science, 2017, 1, 139-154.	0.9	14
54	BioSearch: a semantic search engine for Bio2RDF. Database: the Journal of Biological Databases and Curation, 2017, 2017, .	3.0	21

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55	Is Crowdsourcing Patient-Reported Outcomes the Future of Evidence-Based Medicine? A Case Study of Back Pain. Lecture Notes in Computer Science, 2017, , 245-255.	1.3	5
56	Identifiers for the 21st century: How to design, provision, and reuse persistent identifiers to maximize utility and impact of life science data. PLoS Biology, 2017, 15, e2001414.	5.6	97
57	The emergence and evolution of the research fronts in HIV/AIDS research. PLoS ONE, 2017, 12, e0178293.	2.5	27
58	Publishing DisGeNET as nanopublications. Semantic Web, 2016, 7, 519-528.	1.9	18
59	The Ontology for Biomedical Investigations. PLoS ONE, 2016, 11, e0154556.	2.5	217
60	Predicting structured metadata from unstructured metadata. Database: the Journal of Biological Databases and Curation, 2016, 2016, baw080.	3.0	9
61	The FAIR Guiding Principles for scientific data management and stewardship. Scientific Data, 2016, 3, 160018.	5.3	8,670
62	Network Ranking Assisted Semantic Data Mining. Lecture Notes in Computer Science, 2016, , 752-764.	1.3	0
63	The digital revolution in phenotyping. Briefings in Bioinformatics, 2016, 17, 819-830.	6.5	41
64	Crowdsourced assessment of common genetic contribution to predicting anti-TNF treatment response in rheumatoid arthritis. Nature Communications, 2016, 7, 12460.	12.8	73
65	FALDO: a semantic standard for describing the location of nucleotide and protein feature annotation. Journal of Biomedical Semantics, 2016, 7, 39.	1.6	22
66	Overlap in drug-disease associations between clinical practice guidelines and drug structured product label indications. Journal of Biomedical Semantics, 2016, 7, 37.	1.6	5
67	Thematic issue of the Second combined Bio-ontologies and Phenotypes Workshop. Journal of Biomedical Semantics, 2016, 7, 66.	1.6	0
68	Is the crowd better as an assistant or a replacement in ontology engineering? An exploration through the lens of the Gene Ontology. Journal of Biomedical Informatics, 2016, 60, 199-209.	4.3	10
69	Feasibility of Prioritizing Drugâ€“Drug-Event Associations Found in Electronic Health Records. Drug Safety, 2016, 39, 45-57.	3.2	31
70	The health care and life sciences community profile for dataset descriptions. PeerJ, 2016, 4, e2331.	2.0	18
71	Using LASSO Regression to Predict Rheumatoid Arthritis Treatment Efficacy. AMIA Summits on Translational Science Proceedings, 2016, 2016, 176-83.	0.4	6
72	Special issue on bio-ontologies and phenotypes. Journal of Biomedical Semantics, 2015, 6, 40.	1.6	1

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73	An Ebola virus-centered knowledge base. Database: the Journal of Biological Databases and Curation, 2015, 2015, bav049.	3.0	13
74	PubChemRDF: towards the semantic annotation of PubChem compound and substance databases. Journal of Cheminformatics, 2015, 7, 34.	6.1	77
75	Toward a complete dataset of drugâ€“drug interaction information from publicly available sources. Journal of Biomedical Informatics, 2015, 55, 206-217.	4.3	97
76	SPARQL-enabled identifier conversion with Identifiers.org. Bioinformatics, 2015, 31, 1875-1877.	4.1	14
77	An evidence-based approach to identify aging-related genes in Caenorhabditis elegans. BMC Bioinformatics, 2015, 16, 40.	2.6	8
78	Finding Our Way through Phenotypes. PLoS Biology, 2015, 13, e1002033.	5.6	178
79	Making Digital Artifacts on the Web Verifiable and Reliable. IEEE Transactions on Knowledge and Data Engineering, 2015, 27, 2390-2400.	5.7	24
80	The center for expanded data annotation and retrieval. Journal of the American Medical Informatics Association: JAMIA, 2015, 22, 1148-1152.	4.4	74
81	Pharmacogenomic knowledge representation, reasoning and genome-based clinical decision support based on OWL 2 DL ontologies. BMC Medical Informatics and Decision Making, 2015, 15, 12.	3.0	24
82	Analysis of In Vitro Aptamer Selection Parameters. Journal of Molecular Evolution, 2015, 81, 150-161.	1.8	119
83	Provenance-Centered Dataset of Drug-Drug Interactions. Lecture Notes in Computer Science, 2015, , 293-300.	1.3	7
84	Link Analysis of Life Science Linked Data. Lecture Notes in Computer Science, 2015, , 446-462.	1.3	9
85	Ranking Adverse Drug Reactions With Crowdsourcing. Journal of Medical Internet Research, 2015, 17, e80.	4.3	35
86	Achieving human and machine accessibility of cited data in scholarly publications. PeerJ Computer Science, 2015, 1, e1.	4.5	89
87	GFVO: the Genomic Feature and Variation Ontology. PeerJ, 2015, 3, e933.	2.0	3
88	Publishing Without Publishers: A Decentralized Approach to Dissemination, Retrieval, and Archiving of Data. Lecture Notes in Computer Science, 2015, , 656-672.	1.3	7
89	Automating Identification of Multiple Chronic Conditions in Clinical Practice Guidelines. AMIA Summits on Translational Science Proceedings, 2015, 2015, 456-60.	0.4	2
90	Mining Electronic Health Records using Linked Data. AMIA Summits on Translational Science Proceedings, 2015, 2015, 217-21.	0.4	5

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91	Comparing Drug-Disease Associations in Clinical Practice Guideline Recommendations and Drug Product Label Indications. Studies in Health Technology and Informatics, 2015, 216, 1039.	0.3	0
92	Special issue on Linked Data for Health Care and the Life Sciences. Semantic Web, 2014, 5, 99-100.	1.9	7
93	Mouse model phenotypes provide information about human drug targets. Bioinformatics, 2014, 30, 719-725.	4.1	38
94	The Semanticscience Integrated Ontology (SIO) for biomedical research and knowledge discovery. Journal of Biomedical Semantics, 2014, 5, 14.	1.6	138
95	Automatically exposing OpenLifeData via SADI semantic Web Services. Journal of Biomedical Semantics, 2014, 5, 46.	1.6	10
96	BioHackathon series in 2011 and 2012: penetration of ontology and linked data in life science domains. Journal of Biomedical Semantics, 2014, 5, 5.	1.6	47
97	Bridging Islands of Information to Establish an Integrated Knowledge Base of Drugs and Health Outcomes of Interest. Drug Safety, 2014, 37, 557-567.	3.2	49
98	Selected papers from the 16th Annual Bio-Ontologies Special Interest Group Meeting. Journal of Biomedical Semantics, 2014, 5, I1.	1.6	4
99	Trusty URIs: Verifiable, Immutable, and Permanent Digital Artifacts for Linked Data. Lecture Notes in Computer Science, 2014, , 395-410.	1.3	17
100	Selected papers from the 15th Annual Bio-Ontologies Special Interest Group Meeting. Journal of Biomedical Semantics, 2013, 4, I1.	1.6	0
101	Ontology-Based Querying with Bio2RDFâ€™s Linked Open Data. Journal of Biomedical Semantics, 2013, 4, S1.	1.6	44
102	State of the art and open challenges in community-driven knowledge curation. Journal of Biomedical Informatics, 2013, 46, 1-4.	4.3	23
103	Evaluation of research in biomedical ontologies. Briefings in Bioinformatics, 2013, 14, 696-712.	6.5	60
104	Evaluation of the OQuaRE framework for ontology quality. Expert Systems With Applications, 2013, 40, 2696-2703.	7.6	45
105	Bio2RDF Release 2: Improved Coverage, Interoperability and Provenance of Life Science Linked Data. Lecture Notes in Computer Science, 2013, , 200-212.	1.3	77
106	The SADI Personal Health Lens: A Web Browser-Based System for Identifying Personally Relevant Drug Interactions. JMIR Research Protocols, 2013, 2, e14.	1.0	10
107	An RDF/OWL knowledge base for query answering and decision support in clinical pharmacogenetics. Studies in Health Technology and Informatics, 2013, 192, 539-42.	0.3	6
108	Aptamer base: a collaborative knowledge base to describe aptamers and SELEX experiments. Database: the Journal of Biological Databases and Curation, 2012, 2012, bas006.	3.0	59

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109	Semantically enabling pharmacogenomic data for the realization of personalized medicine. Pharmacogenomics, 2012, 13, 201-212.	1.3	18
110	Building an HIV data mashup using Bio2RDF. Briefings in Bioinformatics, 2012, 13, 98-106.	6.5	15
111	Identifying aberrant pathways through integrated analysis of knowledge in pharmacogenomics. Bioinformatics, 2012, 28, 2169-2175.	4.1	39
112	Self-organizing ontology of biochemically relevant small molecules. BMC Bioinformatics, 2012, 13, 3.	2.6	20
113	Linked Data in Drug Discovery. IEEE Internet Computing, 2012, 16, 68-71.	3.3	2
114	Selected papers from the 14th Annual Bio-Ontologies Special Interest Group Meeting. Journal of Biomedical Semantics, 2012, 3, I1.	1.6	0
115	Evaluating Scientific Hypotheses Using the SPARQL Inferencing Notation. Lecture Notes in Computer Science, 2012, , 647-658.	1.3	8
116	Taking flight with OWL2. Semantic Web, 2011, 2, 67-70.	1.9	0
117	Interoperability between Biomedical Ontologies through Relation Expansion, Upper-Level Ontologies and Automatic Reasoning. PLoS ONE, 2011, 6, e22006.	2.5	38
118	The Translational Medicine Ontology and Knowledge Base: driving personalized medicine by bridging the gap between bench and bedside. Journal of Biomedical Semantics, 2011, 2, S1.	1.6	68
119	Integration and publication of heterogeneous text-mined relationships on the Semantic Web. Journal of Biomedical Semantics, 2011, 2, S10.	1.6	31
120	HyQue: evaluating hypotheses using Semantic Web technologies. Journal of Biomedical Semantics, 2011, 2, S3.	1.6	28
121	MoSuMo: A Semantic Web service to generate electrostatic potentials across solvent excluded protein surfaces and binding pockets. Computers and Graphics, 2011, 35, 823-830.	2.5	4
122	Integrating systems biology models and biomedical ontologies. BMC Systems Biology, 2011, 5, 124.	3.0	44
123	Semantic Web integration of Cheminformatics resources with the SADI framework. Journal of Cheminformatics, 2011, 3, 16.	6.1	26
124	Chemical Entity Semantic Specification: Knowledge representation for efficient semantic cheminformatics and facile data integration. Journal of Cheminformatics, 2011, 3, 20.	6.1	24
125	Prototype semantic infrastructure for automated small molecule classification and annotation in lipidomics. BMC Bioinformatics, 2011, 12, 303.	2.6	19
126	The RNA Ontology (RNAO): An ontology for integrating RNA sequence and structure data. Applied Ontology, 2011, 6, 53-89.	2.0	23

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127	A common layer of interoperability for biomedical ontologies based on OWL EL. Bioinformatics, 2011, 27, 1001-1008.	4.1	35
128	Controlled vocabularies and semantics in systems biology. Molecular Systems Biology, 2011, 7, 543.	7.2	246
129	The Chemical Information Ontology: Provenance and Disambiguation for Chemical Data on the Biological Semantic Web. PLoS ONE, 2011, 6, e25513.	2.5	86
130	Towards an interoperable information infrastructure providing decision support for genomic medicine. Studies in Health Technology and Informatics, 2011, 169, 165-9.	0.3	6
131	Relations as patterns: bridging the gap between OBO and OWL. BMC Bioinformatics, 2010, 11, 441.	2.6	44
132	RKB: a Semantic Web knowledge base for RNA. Journal of Biomedical Semantics, 2010, 1, S2.	1.6	5
133	Modeling and querying graphical representations of statistical data. Web Semantics, 2010, 8, 241-254.	2.9	8
134	Integrating findings of traditional medicine with modern pharmaceutical research: the potential role of linked open data. Chinese Medicine, 2010, 5, 43.	4.0	11
135	Building an effective Semantic Web for health care and the life sciences. Semantic Web, 2010, 1, 131-135.	1.9	8
136	Computational approaches toward the design of pools for the in vitro selection of complex aptamers. Rna, 2010, 16, 2252-2262.	3.5	66
137	Disruption of fungal cell wall by antifungalEchinaceaextracts. Medical Mycology, 2010, 48, 949-958.	0.7	18
138	Modeling tryptic digestion on the Cell BE processor. , 2009, , .		0
139	Towards pharmacogenomics knowledge discovery with the semantic web. Briefings in Bioinformatics, 2009, 10, 153-163.	6.5	47
140	GridCell: a stochastic particle-based biological system simulator. BMC Systems Biology, 2008, 2, 66.	3.0	33
141	yOWL: An ontology-driven knowledge base for yeast biologists. Journal of Biomedical Informatics, 2008, 41, 779-789.	4.3	37
142	Computational Methods For Predicting Proteinâ€“Protein Interactions. Advances in Biochemical Engineering/Biotechnology, 2008, 110, 247-267.	1.1	49
143	Global investigation of proteinâ€“protein interactions in yeast Saccharomyces cerevisiae using re-occurring short polypeptide sequences. Nucleic Acids Research, 2008, 36, 4286-4294.	14.5	57
144	Report on semantic web for health care and life sciences workshop. , 2008, , .		0

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145	Performance of the Charniak-Lease parser on biological text using different training corpora. Nature Precedings, 2008, , .	0.1	0
146	Yeast Features: Identifying Significant Features Shared Among Yeast Proteins for Functional Genomics. Nature Precedings, 2008, , .	0.1	0
147	Chemical Knowledge for the Semantic Web. Lecture Notes in Computer Science, 2008, , 169-176.	1.3	8
148	Semantic Query Answering with Time-Series Graphs. , 2007, , .		3
149	Domain-based small molecule binding site annotation. BMC Bioinformatics, 2006, 7, 152.	2.6	25
150	Hardware-accelerated protein identification for mass spectrometry. Rapid Communications in Mass Spectrometry, 2005, 19, 833-837.	1.5	16
151	Armadillo: Domain Boundary Prediction by Amino Acid Composition. Journal of Molecular Biology, 2005, 350, 1061-1073.	4.2	62
152	CO: A chemical ontology for identification of functional groups and semantic comparison of small molecules. FEBS Letters, 2005, 579, 4685-4691.	2.8	69
153	NBLAST: a cluster variant of BLAST for NxN comparisons. BMC Bioinformatics, 2002, 3, 13.	2.6	25
154	SeqHound: biological sequence and structure database as a platform for bioinformatics research. BMC Bioinformatics, 2002, 3, 32.	2.6	40
155	Species-specific protein sequence and fold optimizations. BMC Bioinformatics, 2002, 3, 39.	2.6	13
156	3D topography of noncompact zone Golgi tubules in rat spermatids: A computer-assisted serial section reconstruction study. , 1998, 250, 381-396.		11
157	Target Profiling of Small Molecules. , 0, , 11-38.		1
158	Development of Small-Molecule Ligands and Inhibitors. , 0, , 115-147.		0
159	Finding melanoma drugs through a probabilistic knowledge graph. PeerJ Computer Science, 0, 3, e106.	4.5	16
160	Interoperability and FAIRness through a novel combination of Web technologies. PeerJ Computer Science, 0, 3, e110.	4.5	58
161	Decentralized provenance-aware publishing with nanopublications. PeerJ Computer Science, 0, 2, e78.	4.5	45
162	Modeling and Querying Graphical Representations of Statistical Data. SSRN Electronic Journal, 0, , .	0.4	0

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163	BioHackathon series in 2013 and 2014: improvements of semantic interoperability in life science data and services. F1000Research, 0, 8, 1677.	1.6	0