Literature search

Keyword search

Database	Keywords	Query	Most cited paper (PoP)	Best ranked (1st result)	Results*	* as of Feb 2023
DBLP	"web3", "ontology"	web3$|web3.0 ontology		NA	0	
	"web3", "semantic web"	web3$|web3.0 "semantic web"		Bevacqua, A., Carnuccio, N	1	
	"distributed ledger", "ontology"	"distributed ledger" ontology		NA	0	
	"distributed ledger", "semantic web"	"distributed ledger" "semantic web"		Janowicz, K., Regalia, B., H	1	
	"blockchain", "ontology"	blockchain ontology		Besançon, L., Da Silva, C.	14	
	"blockchain", "semantic web"	blockchain "semantic web"		Lin, Y., Gao, Z., Du, H., Niy	10	
	"polkadot", "ontology"	polkadot ontology		NA	0	
	"polkadot", "semantic web"	polkadot "semantic web"		NA	0	
	sub-total				**26**	
CORE	"web3", "ontology"	web3 ontology		Palma, R., Haase, P., & Gó	256	* second most cited, first one is a false-positive about unrelated topic
	"web3", "semantic web"	web3 "semantic web"		Palma, R., Haase, P., & Gó	184	
	"distributed ledger", "ontology"	"distributed ledger" ontology		Laurier, W., Schwaiger, W.	790	
	"distributed ledger", "semantic web"	"distributed ledger" "semantic web"		Third, A., & Domingue, J. (2	333	
	"blockchain", "ontology"	blockchain ontology		Sfetcu, N. (2019). Blockcha	2953	
	"blockchain", "semantic web"	blockchain "semantic web"		Sfetcu, N. (2019). Blockcha	1106	
	"polkadot", "ontology"	polkadot ontology		Besançon, L., Da Silva, C.	32	
	"polkadot", "semantic web"	polkadot "semantic web"		Besançon, L., Da Silva, C.	9	
	sub-total				**5663**	
Google Scholar	"web3", "ontology"	("web3.0" OR "web3") AND "ontology"	Kim, H. M., & Laskowski,	W. Ding et al., "DeSci Base	1020	
	"web3", "semantic web"	("web3.0" OR "web3") AND "semantic web"	O'Reilly, T., & Battelle, J. (	Jacksi, K., & Abass, S. M. (	1240	* book
	"distributed ledger", "ontology"	"distributed ledger" "ontology"	Kim, H. M., & Laskowski,	Velasco, P. R. (2017). Com	4130	
	"distributed ledger", "semantic web"	"distributed ledger" "semantic web"	Kuo, T. T., Kim, H. E., & O	Janowicz, K., Regalia, B., H	1390	
	"blockchain", "ontology"	"blockchain" "ontology"	Kim, H. M., & Laskowski,	De Kruijff, J., & Weigand, H	14900	
	"blockchain", "semantic web"	"blockchain" "semantic web"	Sikorski, J. J., Haughton,	Cano-Benito, J., Cimmino,	5630	
	"polkadot", "ontology"	"polkadot" "ontology"	* Chang, Y., Iakovou, E., &	Besançon, L., Da Silva, C.	120	* second most cited, first one is a false-positive about unrelated topic
	"polkadot", "semantic web"	"polkadot" "semantic web"	Yang, W., Aghasian, E., G	Abebe, E., Behl, D., Govind	51	
	sub-total				**28481**	
arXiv	"web3", "ontology"	https://arxiv.org/search/advanced?terms-0-operator=AN		Goldston, J., Chaffer, T. J.,	26	* second most cited, first one is a false-positive about unrelated topic
	"web3", "semantic web"	https://arxiv.org/search/advanced?terms-0-operator=AN		Goldston, J., Chaffer, T. J.,	27	* second most cited, first one is a false-positive about unrelated topic
	"distributed ledger", "ontology"	https://arxiv.org/search/advanced?terms-0-operator=AN		NA	0	
	"distributed ledger", "semantic web"	https://arxiv.org/search/advanced?terms-0-operator=AN		NA	0	
	"blockchain", "ontology"	https://arxiv.org/search/advanced?terms-0-operator=AN		Scrocca, M., Comerio, M.,	13	
	"blockchain", "semantic web"	https://arxiv.org/search/advanced?terms-0-operator=AN		Sheridan, D., Harris, J., We	3	
	"polkadot", "ontology"	https://arxiv.org/search/advanced?terms-0-operator=AN		NA	0	
	"polkadot", "semantic web"	https://arxiv.org/search/advanced?terms-0-operator=AN		NA	0	
	sub-total				**69**	

Google Scholar

Keywords	Most cited	Best ranked	Year	Results
"blockchain", "ontology"	Kim et al., 2018	De Kruijff & Weigand, 2017	2017	14900
"blockchain", "semantic web"	Sikorski et al., 2017	Cano-Benito, et al., 2019	2019	5630
"distributed ledger", "ontology"	Kim et al., 2018	Velasco, 2017	2017	4130
"distributed ledger", "semantic web"	Kuo et al., 2017	Janowicz et al., 2018	2018	1390
"web3", "semantic web"	O'Reilly & Battelle, 2009	Jacksi & Abass, 2019	2019	1240
"web3", "ontology"	Kim et al., 2018	Ding et al., 2022	2022	1020
"polkadot", "ontology"	Chang et al., 2020*	Besançon et al., 2020	2020	120
"polkadot", "semantic web"	Yang et al., 2019	Abebe et al., 2019	2019	51

Most cited (Google Scholar, PoP)

Rank	Title	Author	Year	Type	Publication Venue	Available online?	Citations (Google Scholar)	Comment	Category	Domain
1	Blockchain distributed ledger technolo	Kuo et al., 2017	2017	Journal article	Journal of the American Medical Informatics Association	Yes	972	Benefits of blockchain	Blockchain for domain applications	Biomedical/Healthcare
2	Web Squared: Web 2.0 Five Years O	O'Reilly & Battelle, 2009	2009	Book chapter / Special report	O'Reilly Media	Yes	929	Special report back in	Out-of-scope	Web2/Web3
3	Blockchain technology in the chemica	Sikorski et al., 2017	2017	Journal article	Applied Energy	Yes	742	Explores application o	Blockchain for domain applications	Energy
4	Toward an ontology-driven blockchai	Kim et al., 2018	2018	Journal article	Intelligent Systems in Accounting, Finance and Manag	Yes	733	Kim et al. focuses on	Blockchain and semantic web	Supply chain
5	Blockchain in global supply chains an	Chang et al., 2020	2020	Journal article	International Journal of Production Research	Yes	375	Explores challenges i	Blockchain for domain applications	Supply chain
6	A survey on blockchain-based interne	Yang et al., 2019	2019	Journal article	IEEE Access	Yes	96	Explores blockchain-b	Blockchain for domain applications	Web2/Web3

Best ranked (overall)

Rank	Title	Author	Year	Database	Type	Publication Venue	Available online?	Citations (Google Scholar)	Comment	Category	Domain
1	Understanding the blockchain using	De Kruijff & Weigand, 2017	2017	Google Scholar	Conference proceedings	Advanced Information Systems	Yes	131	Proposes using EO to provide a clear c	Blockchain and semantic web	Supply chain
2	Towards blockchain and semantic we	Cano-Benito et al., 2019	2019	Google Scholar	Conference proceedings	Business Information Systems W	Yes	63	Proposes a framework for integrating b	Blockchain and semantic web	Supply chain
3	Oyster: sharing and re-using ontologi	Palma et al., 2006	2006	CORE	Conference proceedings	International Conference on Wor	Yes	62	Presents a decentralized platform for o	Blockchain for domain applications	Ontology
4	Computing ledgers and the political o	Velasco, 2017	2017	Google Scholar	Journal article	Metaphilosophy	Unavailable/restricted access	48	Challenges the notion of the blockchain	Out-of-scope	Political/Social
5	On the prospects of blockchain and d	Janowicz et al., 2018	2018	Google Scholar	Journal article	Semantic Web	Yes	40	Discusses potential benefits and limitat	Blockchain and semantic web	DeSci
6	LinkChains: Exploring the space of d	Third & Domingue, 2017	2017	CORE	Conference proceedings	Semantic Web	Yes	23	Proposes a new approach called LinkC	Blockchain and semantic web	Supply chain
7	Development history of the world wid	Jacksi & Abass, 2019	2019	Google Scholar	Journal article	International Journal of Scientific	Yes	18	Discusses key technological innovation	Web2/Web3	Web2/Web3
8	DeSci Based on Web3 and DAO: A C	Ding et al., 2022	2022	Google Scholar	Journal article	IEEE Transactions on Computati	Unavailable/restricted access	10	Presents a comprehensive reference m	Blockchain for domain applications	DeSci
9	Web3 Challenges and Opportunities	Sheridan et al., 2022	2022	arXiv	e-Print	Unpublished / CC BY 4.0	Yes	7	Comprehensive overview of Web3 and	Blockchain for domain applications	Finance
10	A unified blockchain-semantic framew	Lin et al., 2023	2023	DBLP	Journal article	IEEE Wireless Communications	Yes	3	Overview of the state of the art in block	Blockchain and semantic web	Biomedical/Healthcare
11	A Blockchain Ontology for DApps De	Besançon et al., 2022	2022	Google Scholar, DBLP, CORE	Journal article	IEEE Access	Yes	2	Proposes a blockchain ontology (exten	Blockchain for domain applications	Ontology
13	Traditional accounting with decentrali	Laurier et al., 2020	2020	CORE	Conference proceedings	CEUR Workshop Proceedings	Yes	1	Discusses limitations of traditional acco	Blockchain for domain applications	Accounting
14	A Semantic-based Framework for Su	Bevacqua et al., 2013	2013	DBLP	Conference proceedings	Symposium on Advanced Databa	Unavailable/restricted access	0	Proposes a semantic-based framework	Blockchain and semantic web	Content creation
15	Blockchain Enterprise Ontologies: TO	Sfetcu, 2019	2019	CORE	e-Print	Unpublished / CC BY-ND 4.0	Yes	0	Presents two ontologies, OMG's Theory	Blockchain and semantic web	Ontology
16	Digital Inheritance in Web3: A Case S	Goldston et al., 2023	2023	arXiv	e-Print	Unpublished / CC BY 4.0	Yes	0	Describes the Soulbound tokens and S	Blockchain for domain applications	Digital inheritance
17	Modelling Business Agreements in th	Scrocca et al., 2022	2022	arXiv	Conference proceedings / e-Print	International Conference on Sem	Yes	0	Combines Semantic Web technologies	Blockchain and semantic web	Transportation

Cites Polkadot

Title	Author	Citations (Google Scholar)	Comment	Category	Domain
Blockchain in global supply chains an	Chang et al., 2020	375	Explores challenges in global su	Blockchain for domain applications	Supply chain
A Blockchain Ontology for DApps De	Besançon et al., 2022	2	Proposes a blockchain ontology	Blockchain and semantic web	Ontology
Digital Inheritance in Web3: A Case S	Goldston et al., 2023	0	Describes the Soulbound tokens	Blockchain for domain applicatio	Digital inheritance

DBLP

Google Scholar

CORE

arXiv

Publication categories

10 (45.5%)
3 (13.6%)
9 (40.9%)

- Blockchain for domain applications
- Out-of-scope
- Blockchain and semantic web

Publication domains

Transportation 4.5%
Digital inheritance 4.5%
Content creation 4.5%
Accounting 4.5%
Finance 4.5%
DeSci 9.1%
Political/Social 4.5%
Ontology 13.6%

Biomedical/Healthcare 9.1%
Web2/Web3 13.6%
Energy 4.5%
Supply chain 22.7%