New Areas of Contributions and New Addition of Security

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ABSTRACT

Open Journal of Big Data (OJBD) (www.ronpub.com/ojbd) is an open access journal, which addresses the aspects of Big Data, including new methodologies, processes, case studies, poofs-of-concept, scientific demonstrations, industrial applications and adoption. This editorial presents two articles published in the first issue of the second volume of OJBD. The first article is about the investigation of social media for the public engagement. The second article looks into large-scale semantic web indices for six RDF collation orders. OJBD has an increasingly improved reputation thanks to the support of research communities. We will set up the Second International Conference on Internet of Things, Big Data and Security (IoTBDS 2017), in Porto, Portugal, between 24 and 26 April 2017. OJBD is published by RonPub (www.ronpub.com), which is an academic publisher of online, open access, peer-reviewed journals.

TYPE OF PAPER AND KEYWORDS

Editorial: Open Journal of Big Data, OJBD, RonPub, open access, volume two, first issue

1 INTRODUCTION

Open Journal of Big Data (OJBD) [5] is an open-access journal published by RonPub [7]. The journal covers a wide range of topics including big data science, frameworks, analytics, visualizations, recommendations and data-intensive research. OJBD [5] publishes high-quality scholarly papers, which present new methodologies, processes, case studies, poofs-of-concept, scientific demonstrations, industrial applications and adoption relating to big data. The second volume of OJBD was published in 2016.

Security has always been an important area for Big Data. The improvements for providing robust and reliable services, platforms and user experiences are the upmost factors for Big Data security. Integration with other services, data processing and data security are critical. Different research contributions have been fully demonstrated, including homomorphic indexing [6], location privacy [8], vehicular ad hoc security [10], authentication for IoT [1] and attribute-based encryption (ABE) [9]. Hence, it is not only the Big Data as the subject focus but the assistance from IoT and Security can further enhance the usefulness and effectiveness of Big Data services.

2 CONTENT OF ISSUE ONE, VOLUME TWO

This is the first issue of the second volume of Open Journal of Big Data (OJBD) [5], which contains two articles. This first article, "Conformance of Social Media as Barometer of Public Engagement", provides evidences that social media can be critical aspects of public engagement by providing in-depth evaluation and analysis. Since more people can express their true thoughts and have exchanged opinions with each other,

social media can be strong forces for updates, improvements and interactions for any governments and companies in the world. The impacts of social media has been fully investigated which can further enhance the importance of influences, case studies and understanding of complex human relationships as demonstrated in [2].

The second article, "Constructing Large-Scale Semantic Web Indices for the Six RDF Collation Orders", illustrates that Semantic Web indices can make use of the simple data model of RDF. Having six collation orders indexed, fast merge joins (consuming the sorted input of the indices) can be applied as much as possible during query processing. Authors discuss how they can resolve challenges and improve the current status. With the step-by-step approach, their results from the experiments can help validate their work. Indeed, the lessons learned from the authors' cases can be useful for Big Data communities, particularly those with RDF backgrounds at the early stage of Data Science. Challenges such as data quality and disaster recovery [4] are still yet to be resolved.

3 LOOKING FORWARD

Open Journal of Big Data (OJBD) [5] has been managed and reviewed by a board of international experts in Big Data and related areas, such as Cloud Computing, Internet of Things, Machine Learning, Artificial Intelligence, Software Engineering, Security and Privacy. The quality of the papers, the management of the vigorous reviews and the impact to the international research communities have been and will be one of the best in Big Data. The Editor-in-Chief of OJBD is Dr. Victor Chang, who has successfully blended international workshops and conferences with OJBD and other leading journals. OJBD has an increasingly improved reputation and ranking thanks to the support of research communities.

We have successfully hosted the third international workshop on Enterprise Security in Suzhou, China, on 28 October, 2016. Our First International Conference on Internet of Things and Big Data (IoTBD 2016) in Rome, Italy, between the 23rd and 25th of April, 2016, was very successful. We will have the Second International Conference on Internet of Things, Big Data and Security in Porto, Portugal, between 24-26 April, 2017 [4]. Revised and extended versions of selected papers will be published in forthcoming special issues of OJBD. We always seek the best papers in different areas of Big Data and the best practices, recommendation, innovation, prototype, algorithms, large scale experiments and simulations and proofs-ofconcept for Big Data. Please follow our Facebook page for the scholarly activities [3]. We look forward to meeting you in Porto!

REFERENCES

[1] R. Amin, N. Kumar, G. P. Biswas, R. Iqbal, V. Chang: "A Light Weight Authentication Protocol for IoT-enabled Devices in Distributed Cloud Computing Environment. *Future Generation Computer Systems*, 2016.

[2] V. Chang: "A Cybernetics Social Cloud. *Journal of Systems and Software,* Vol. 124, pp. 195-211, 2017.

[3] Facebook for Scholarly Activities: ES 2016, IoTBDS 2017 and COMPLEXIS 2017, https://www.facebook.com/ES2014ECs2015/.

[4] IoTBDS, Second International Conference on Internet of Things, Big Data and Security, http://www.iotbds.org, Porto, Portugal, 24-26 April, 2017.

[5] OJBD, Open Journal of Big Data, RonPub, www.ronpub.com/ojbd, 2015.

[6] S. Q. Ren, B. H. M. Tan, S. Sundaram, T. Wang, Y. Ng, V. Chang, K. M. M. Aung: "Secure Searching on Cloud Storage Enhanced by Homomorphic Indexing", *Future Generation Computer Systems*, Vol 65, pp. 102-110, 2016.

[7] RonPub, "Research Online Publishing", www.ronpub.com, 2013.

[8] G. Sun, V. Chang, M. Ramachandran, Z. Sun, G. Li, H. Yu, D. Liao: "Efficient Location Privacy Algorithm for Internet of Things (IoT) Services and Applications", *Journal of Network and Computer Applications*, 2016

[9] Z. Wang, C. Cao, N. Yang, V. Chang: "ABE with Improved Auxiliary Input for Big Data Security. *Journal of Computer and System Sciences*, 2016

[10] P. Vijayakumar, V. Chang, L. J. Deborah, B. Balusamy, P. G. Shynu: "Computationally Efficient Privacy Preserving Anonymous Mutual and Batch Authentication Schemes for Vehicular Ad Hoc Networks", *Future Generation Computer Systems*, 2016.

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Dr. Victor Chang received his research MPhil from the University of Cambridge, UK and his PhD from University of Southampton, UK. He is an Associate Professor and Director of PhD at IBSS, Xi'an Jiaotong-Liverpool University, Suzhou, China. He is the founding chair of two international workshops and two conferences including IoTBDS 2017 and COMPLEXIS 2017. He has over 130 peer-reviewed publications. He is the Editor-in-Chief of two journals, including Open Journal of Big Data (OJBD). He is an Editor of Future Generation Computer Systems (FGCS). He has successfully delivered many projects and services and has won several awards. He gave several keynote talks including CLOSER/WEBIST/ICTforAgeingWell 2015, Math-CEng 2016, SPNCE 2016 and eight more in Year 2017. He is the European Winner of Year 2016, Best Project in Research. He is a leading expert in Cloud Computing, Big Data, Internet of Things and Security.