CSE201 Coursework 2018-19

Linked Open Data – Overview and Future Research Directions

Release date: 7th Nov 2018
Deadline: 16:00, 28th Nov 2018

Submission

(1) Softcopy via ICE coursework link
(2) One hardcopy to module leader's mailbox (beside the lift of 4th floor, SD building)

Requirements

Part 1 (10% of final assessment)

- Write a literature review on linked open data based on your understanding of the lectures on semantic Web and linked data, and your research on the recent development on linked data applications. You are suggested to focus on the following items in your report.
    - Overview of the linked data, background information, and any enabling technologies.
    - Survey the existing linked open data applications. You need to search for papers by yourselves and expand your reading (not only the references provided).

Part 2 (10% of final assessment)

- Propose a "novel" idea(s) to develop an interesting application using the linked open data related to your own interests. Based on the literature survey, justify why your ideas are novel.
- Develop an application by choosing a specific area. You can define the scope of the study by yourself, e.g, search engine deign, information systems for academic communities, healthcare, social media, smart cities, or bioinformatics. You don't need to implement a system, however, you need discuss the technical soundness in detail, e.g., how the techniques can be used to implement such an application.

Note

- Use the provided IEEE template for formatting; no more than THREE pages including everything (e.g., tables, diagrams and references). The number of references should NOT exceed 30.
- All standard processes related to XJTLU coursework submission are followed.
- Plagiarism results in award of ZERO mark; all submissions will be checked by TurnItIn.

Marking Scheme

Part 1

Marking Criteria	Item	Marks Awarded
Literature review (70)	Understanding of the topic, i.e., background study and enabling technologies (30)	
	Survey of related work (40)	
Quality of report (30)	Technical writing (10)	
	Level of detail (10)	
	References (5)	
	Formatting (5)	
Total		

Comments:

Part 2

Marking Criteria	Item	Marks Awarded
Novel ideas and applications (70)	Novel ideas and justification (30)	
	Feasibility study (40)	
Quality of report (30)	Technical writing (10)	
	Level of detail (10)	
	References (5)	
	Formatting (5)	
Total		

Comments:

References

1. Berners-Lee, T.; Hendler, J.; Lassila, O. (2001). "The Semantic Web". Scientific American. 2841 (5): 34.
2. Nigel Shadbolt; Wendy Hall; Tim Berners-Lee (2006). "The Semantic Web Revisited". IEEE Intelligent Systems. Retrieved April 13, 2007.
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5. Gruber, T. R. (1993). A Translation Approach to Portable Ontology Specifications. Knowledge Acquisition, 5(2), 199-220.
6. Linked data, https://www.w3.org/standards/semanticweb/data
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8. Linked data design issues, https://www.w3.org/DesignIssues/LinkedData.html
9. Tom Heath and Christian Bizer, Linked Data: Evolving the Web into a Global Data Space, http://linkeddatabook.com/
10. Chris Bizer, Richard Cyganiak, How to Publish Linked Data on the Web (Tutorial), http://wifo5-03.informatik.uni-mannheim.de/bizer/pub/LinkedDataTutorial/
11. SPARQL, https://www.w3.org/2001/sw/wiki/SPARQL
12. Querying Semantic Data, http://www.linkeddatatools.com/querying-semantic-data