Exercise Sheet 1: Finding Literature

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Please prepare exercise 1.5 for the exercise session on 2019-04-23.

Exercise 1.1. Read the introduction section of the following papers. What do the authors claim as their contributions? Assuming that the paper fulfills these claims, how would you rate relevance, originality, and significance of the contributions? Now read the reviews (see bottom of the page). How did the reviewers assess the paper with respect to these qualities?

- 1. http://www.semantic-web-journal.net/content/characterizing-web-things-interactions-exis tential-reasoning
- 2. http://www.semantic-web-journal.net/content/automated-ontology-driven-managementheterogeneous-devices-iot
- 3. http://www.semantic-web-journal.net/content/querying-knowledge-graphs-extended-prop erty-paths

Exercise 1.2. Each of the following news articles references a research paper, but does not cite it. Find the respective papers.

- 1. https://www.theregister.co.uk/2011/06/09/psych_grads_knacked/
- 2. https://www.bbc.com/news/education-33047927
- 3. https://www.bbc.co.uk/news/amp/health-47238070

Exercise 1.3.

1. Which papers cite the following article? Try to find software systems supporting logic programming by forward search.

Dantsin, E., Eiter, T., Gottlob, G., & Voronkov, A. (2001). Complexity and expressive power of logic programming. ACM Computing Surveys (CSUR), 33(3), 374-425.

- 2. Find topics that Bernhard Ganter has recently published on.
- 3. Look up a list of papers published at the first installment of the International Conference on Artificial Intelligence (IJCAI).

Exercise 1.4. Consider the claim "All currently available solutions are lacking in scalability." Without any further context, which of these citations would you trust to support this statement? Why/Why not?

- 1. A. Author and C. Coauthor. 1980. REASON: System Description. J. Symb. Log. 45.
- 2. B. Bookwriter. 2010. A Beginner's Guide to Logic. 3rd ed. Oxford University Press.

3. D. Dummy and A. Nother. 2018. Benchmarks: A Survey on the State of the Art. Proc. 34th Int. Conf. on Logic Programming (ICLP'18).

Exercise 1.5. (Homework)

For each of the following concepts, find the paper that introduced (i) the concept itself, and (ii) the name:

- 1. Turing machine
- 2. NP-completeness
- 3. Datalog $^{\pm}$