

Ryerson's LS³ launches Research on eCommerce Product Knowledge Management Framework

Toronto, September 3, 2013. [Ryerson's Laboratory for Systems, Software and Semantics \(LS³\)](#) announced today the launch of a research project funded by [the Natural Sciences and Engineering Research Council of Canada \(NSERC\)](#). The awarded of close to \$1M includes the industry partner investment of over \$400, 000 made by [Warranty Life Inc.](#)

The initiative aims at developing an ecosystem framework to support the aggregation, maintenance, and evolution of large-scale eCommerce product knowledge bases that exist on the Web. The intelligent aggregation and semantic interpretation of eCommerce product information that is scattered over the Web will provide the basis for efficient product recommendation leading to higher sales and revenue.

The possibilities offered by the Linked Data initiative in recent years have resulted in the accumulation of great quantities of data (currently over 31 billion triples). While data accumulation on the Web of Data has been more concerned with publishing the data rather than their semantics, accessing the right information has become an ever-greater challenge. For ordinary people who interact with the Web for the sake of buying or selling products, for instance, this creates no easy conundrum. The luxury of selecting from numerous products available on the global market has made it increasingly difficult to choose the "right" product. Dr. Bagheri and his team bring Semantic Web technologies to this knowledge management challenge in a multi-university project spearheaded by Ryerson's Department of Electrical and Computer Engineering.

As one of its goals, this research project will involve the training of several Masters and PhD students and open 3-year research positions for research support staff, programmers, and a Postdoctoral fellow.

Areas of research activity & knowledge/technology breakthrough:

- 1) Automated semantic knowledge base aggregation and evolution capable of annotating extracted information with concepts from the Linked Open Data.
- 2) Semantics-based recommendations enabled through algorithms that consider the semantic information represented in the knowledge base.

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About LS³

LS³ is home to industry-sponsored and government-funded R&D projects in software engineering, quality engineering, semantic Web, linked open data, and knowledge engineering. The research in our lab provides learning opportunities for Ryerson's undergraduate and graduate students as well as visiting scientists in an exciting and dynamic environment. We assist in linking industrial research projects with expert teams within

academia to find solutions to industry challenges. We also help manage these research projects and work together to secure matching funding from government programs. Industrial partners are encouraged to contact us and explore opportunities for collaboration. Our current projects have resulted in high impact patent, publication and products for our partners. For more information, please visit <http://ls3.rnet.ryerson.ca/>