
Editorial

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The International Conference on Product Lifecycle Management (PLM) is the leading international forum bringing together both researchers and practitioners to share the developments in PLM. The 9th edition of this conference (PLM'12) was held at Ecole de technologie supérieure (ETS), of the University of Quebec, in Montreal, Canada, in July 2012. Fifty-nine scientific papers were accepted after review by the PLM'12 International Scientific Committee, and presented to 140 participants from 22 countries.

These papers covered varied topics such as collaboration in PLM, tools and methodologies for PLM, and PLM implementation issues. We observed strong interest in knowledge management, sharing and reuse. It has become clear to both researchers and industry representatives that knowledge-related issues, such as the ability to locate knowledge within large organisations, to capture knowledge from retiring workers, or to structure knowledge so as to be able to share and capitalise on past experiences are key to an organisation's survival, and that PLM is a key to achieving these goals.

This special issue of the *International Journal of PLM* contains extended versions of selected papers from that conference. These papers were substantially revised and expanded for this special issue, and each one was subject to a double-blind peer review process by a least two reviewers. This special issue contains six articles, all related to the central theme.

The paper from Milicic, El Kadiri, Perdikakis, Ivanov and Kiritsis looks at the issue of identifying and representing knowledge and proposes an approach based on the user story mapping method from agile software development. This approach leads to a list of relevant concepts that cover an entire domain, while the domain's dynamics are represented using ontology relations.

Bricogne, Rivest, Troussier and Eynard contribute their research into information sharing from the perspective of the tools typically used in software development, presenting the possible transposition of the branch and merge concepts to PLM platforms. PLM is thus envisioned as a common platform accessible to both software and hardware engineers, fostering collaboration and integration.

Krima, Feeney and Foufou examine product-related information exchange and make the case for dynamic PLM-related information models. They discuss using semantic web technology to improve PLM data integration with Linked Data.

The article by Assouroko, Ducellier, Boutinaud and Eynard received the best paper award as a conference paper. It promotes an ontology-based approach for semantic relationship management as a means to improve knowledge management and reuse in

collaborative product development. The approach is implemented through Semantic Web and visualisation graph techniques.

The paper by Fortineau, Fiorentini, Paviot, Louis-Sidney and Lamouri explores the ability of semantic web languages to express business rules within an ontology-based product model. The Web Ontology Language and the Semantic Web Rule Language are studied and tested on a use case from the nuclear industry.

Finally, the paper by Herlem, Adragna, Ducellier and Durupt focuses on the development of a knowledge-based reverse engineering approach to identify differences between a real product, as used and maintained, and its virtual representation in a digital mock-up. They propose an extension to the core product model for handling shape and knowledge abstractions.

As a concluding remark, one can observe that these six papers – even though they explore widely different research avenues – clearly share a common goal for efficient information and knowledge extraction, sharing and reuse, and thus contribute to achieving knowledge-rich organisations.

The guest editor is very grateful to all those who have made this special issue possible. Thanks are due to all of the authors for their contributions and to the reviewers for their valuable comments and suggestions.