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Letter from the Editor-in-Chief

I welcome the readers to the first issue of volume 15 of the *Journal of the Brazilian Computer Society*, which brings us four contributions.

The initial paper is by Giampaolo Luiz Libralon, André Carlos Ponce de Leon Ferreira de Carvalho and Ana Carolina Lorena, who address a bioinformatics problem, namely gene expression analysis in a scenario of redundant and noisy data. Arguing that, albeit many machine learning algorithms can handle noisy data, induction of the target hypothesis will be facilitated if noisy instances are removed from the training data prior to classification, they investigate distance-based techniques to detect such instances. Effectiveness of the approach is analyzed by measuring the accuracy obtained by different classifiers over the pre-processed data, as compared to their accuracy over the original noisy data, for several data sets. Their experiments show that eliminating noisy instances results in simplification of the classifiers and in reduced classification error rates.

The second paper, by Gilberto Zonta Pastorello Jr., Rodrigo Dias Arruda Senra and Claudia Bauzer Medeiros, deals with the key issue of interoperability in geospatial data and processes. They present a framework that analyzes the management of geospatial data from a life cycle perspective. By isolating each layer in the cycle, with clear interfaces and tasks, the framework induces a methodology to design and develop interoperable geographic applications. Rather than providing standards or services for a particular data transformation stage, their discussion targets on how such efforts can be seamlessly interconnected so that users may shift their focus from the underlying technology to the underlying models. They also describe the impacts of such solutions on the design and development of multiple geospatial applications.

The paper by Fernanda Aparecida Lachtim, Ana Maria de Carvalho Moura and Maria Cláudia Cavalcanti also addresses a problem on data interoperability, now in the context of information integration in semantic portals. Such portals are characterized by storing and structuring content according to specific domain ontologies. The authors first extend the functionalities of a known algorithm for automatic ontology matching. Their extended algorithm showed improved results on a benchmark proposed to evaluate ontology alignment. Then, they provide a detailed illustration on how the extended algorithm was implemented on a system devised to generate content for semantic portals within a specific domain.

Finally, Luis Valente, Clarisse Sieckenius de Souza and Bruno Feijó report a compelling work that explores the new interactive possibilities for games made possible by recent mobile phone technology. They study the design of non-visual interfaces for mobile games, pointing out that such interfaces may greatly contribute to include visually-impaired persons into the game market, while also offering alternative gaming experiences to sighted users. Their study is based on Semiotic Engineering principles, emphasizing communication through aural, tactile and gestural signs. In designing and testing a game that completely excludes visual information, they identified several challenges, raising a number of issues that may be incorporated into a wider research agenda on mobile gaming accessibility.

Once again, I highlight the long term commitment of JBCS to publishing high quality original results on computer science research. As such, I encourage the Brazilian computer science community to contribute their results and play an active role in strengthening their most traditional journal.

Wishing us all a very productive 2009.

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