

Editorial

This new issue of JIDM includes two special sections. The first section is dedicated to research groups and features six Brazilian groups that work on data management and information retrieval related topics. It begins with an article from the information retrieval group at the Universidade Federal de Minas Gerais (UFMG). One of the most traditional research groups in Brazil, with almost thirty years of activity, this group is known worldwide for its contributions to information retrieval and for its successful start-ups. The following three articles also describe traditional groups, but which share an interesting fact: they are all led by female researchers. The first of them presents LIS, the Laboratory of Information Systems at the Universidade Estadual de Campinas (UNICAMP). LIS has an outstanding record of projects and contributions for data-driven applications within a multidisciplinary context. Research at LIS has been motivated by real-world applications, always involving the cooperation with researchers from other fields in life sciences, agricultural sciences and engineering. The second addresses the group from the Universidade Federal de Pernambuco (UFPE), which works on data integration over heterogeneous, distributed and autonomous data sources. This group has made several contributions for mediation-based data integration and P2P data management. Then, the last of these articles presents the Distributed Database Group from the Universidade Federal do Rio de Janeiro (UFRJ). This group works with different aspects of distributed and parallel processing of databases in the realm of the relational, object-oriented and XML data models, including some of the most exciting topics in core databases. Last but not least, the final articles of this section describe two groups of the new generation, whose researchers are predominately graduated from Brazilian universities. The first of these younger teams is the Database and Information Retrieval group from the Universidade Federal do Amazonas (UFAM). In their article, the authors describe the contributions made by the group to the fields of data management, information retrieval and data mining in the context of the World Wide Web. Then, the database group of the Universidade Federal de Santa Catarina (UFSC) describes some of their most interesting projects, which exploit data modeling, data matching, information retrieval, and spatial and spatio-temporal data analysis.

The call for contributions for the research groups section triggered a strong answer from the Brazilian database community, which lead us to realize that just a single number of JIDM would not be enough to cover all the received material. Therefore, we have split the contributions, presenting six articles in the first edition of this section and leaving the others to next issues of JIDM. Together, all received articles show a wide coverage of the Brazilian database community, revealing a dynamic, resourceful and innovative community working on almost every current database research topic.

The second section of this issue includes four articles that are extended and revised versions of selected papers presented at GeoInfo 2010, the XI Brazilian Symposium on GeoInformatics. GeoInfo is a series of scientific meetings that provide an annual forum for exploring research, development and innovation in geographic information science and related fields. Many contributions to GeoInfo have a strong connection to databases and data management in general, therefore addressing research topics usually covered by JIDM. The four articles in this section are a good sample of this kind of work presented at GeoInfo 2010. Semantics for data management is a concern in two of the contributions. The first of them, “GeoNote: A Web Service for Geographic Data Annotation in Biodiversity Information Systems” by Gil, Kozevich and Torres, describes a semantic annotation service directed

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at biodiversity research work. The second, “Using Semantic Similarity to Improve Information Discovery in Spatial Data Infrastructures” by de Andrade and Baptista, proposes resources to improve the retrieval of useful information from spatial metadata. The third article, “Multiscale Analysis and Modeling of *Aedes aegyti* Population Spatial Dynamics” by Lana et al., deals with the complexities of understanding and controlling the mosquitoes that transmit the dengue fever virus among humans, using a spatial point of view. The last article, “Applying the Model Driven Architecture Approach for Geographic Database Design using a UML Profile and ISO Standards” by Nalon et al., proposes evolutions for geographic database modeling in which the special characteristics of spatial data are handled using extensions of conventional architectures and UML profiles.

Finally, this issue brings the first regular article accepted for publication in JIDM. The article, “Using Pivots to Speed-Up k-Medoids Clustering” by Paterlini, Nascimento and Traina Jr., proposes a technique that, given a set of elements, quickly finds a very small number of elements as medoid candidates for this set, thus allowing to improve both the efficiency and effectiveness of existing k-medoids based clustering algorithms. This article will be presented in the upcoming edition of the Brazilian Symposium on Databases, to be held on October 3-6 in the beautiful city of Florianopolis, Santa Catarina.

We would like to thank everybody who got involved with this edition of JIDM, particularly reviewers for their valuable comments and authors for the hard work in preparing their final manuscripts.

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