

Appendix A

Research Dissemination

One of the high-level goals of this thesis is to promote dissemination of its research results and the technologies discussed so far, in order to contribute to the body of knowledge both in academia *and* industry.

With respect to dissemination amongst the scientific community, to date, this thesis has generated +30 publications, most of which have been presented in top-tier venues¹. To sum up, these contributions include:

- 23 conference papers,
- 3 journal papers,
- 3 workshop papers,
- 3 book chapters, and
- 2 research awards plus 1 mention.

Regarding dissemination amongst the industry, the contributions of this thesis include:

- 4 technology transfer projects, and
- 3 issued patents².

Moreover, most of our results have been disseminated through videos, demonstrations, informational brochures, and informative articles in the news and press. Some of the prototypes have been awarded in national and international competitions, and others have raised the interest of some ICT companies. This

¹Conference rankings and acceptance rates are reported for the year of publication.

²Not listed here because of pending status.

shows a clear awareness from the society to start embracing these novel technologies. Furthermore, almost all developed prototypes are now part of the catalogue of technology supply at our university: the CARTA programme³.

Finally, a number of follow-up activities should be performed, among which we highlight: technology watch, search for additional funding sources, deploy R&D management activities, and establish strategic alliances. It is expected that, in the medium term, these strategies will lead to novel emerging technologies and more tech transfer projects related to a greater or a lesser extent to this thesis.

List of Publications

- V. ALABAU, J. M. BENEDÍ, F. CASACUBERTA, L. A. LEIVA, D. ORTIZ-MARTÍNEZ, V. ROMERO, J. A. SÁNCHEZ, R. SÁNCHEZ-SAEZ, A. TOSELLI, AND E. VIDAL. CAT-API framework prototypes. In *Workshops on Database and Expert Systems Applications (DEXA)*, pp. 264–265, 2010a.
- V. ALABAU, F. CASACUBERTA, L. A. LEIVA, D. ORTIZ-MARTÍNEZ, AND G. SANCHIS-TRILLES. Sistema web para la traducción automática interactiva. In *Actas del XI Congreso Internacional de Interacción Persona Ordenador (INTERACCION)*, pp. 47–56, 2010b. 37% acceptance.
- V. ALABAU, L. A. LEIVA, D. ORTIZ-MARTÍNEZ, AND F. CASACUBERTA. User evaluation of interactive machine translation systems. In *Proceedings of the European Association for Machine Translation (EAMT)*, pp. 20–23, 2012. **CORE: B.** 54% acceptance.
- L. A. LEIVA. MouseHints: Easing task switching in parallel browsing. In *Proceedings of the 2011 annual conference extended abstracts on Human factors in computing systems (CHI EA)*, pp. 1957–1962, 2011a. **CORE: A.** 42% acceptance.
- L. A. LEIVA. Mining the browsing context: Discovering interaction profiles via behavioral clustering. In *Adjunct Proceedings of the 19th conference on User Modeling, Adaptation, and Personalization (UMAP)*, pp. 31–33, 2011b. **CORE: B.** 20% acceptance.
- L. A. LEIVA. Restyling website design via touch-based interactions. In *Proceedings of the 13th International Conference on Human-Computer Interaction with Mobile Devices and Services (MobileHCI)*, pp. 599–604, 2011c. **CORE: A.** 23% acceptance.
- L. A. LEIVA. Interaction-based user interface redesign. In *Proceedings of the 17th international conference on Intelligent User Interfaces (IUI)*, pp. 311–312, 2012a. **CORE: A.** 23% acceptance.
- L. A. LEIVA. ACE: An adaptive CSS engine for web pages and web-based applications. In *Proceedings of the WWW Dev Track*, 2012b. **CORE: A.** 45% acceptance.
- L. A. LEIVA. Automatic web design refinements based on collective user behavior. In *Proceedings of the 2012 annual conference extended abstracts on Human factors in computing systems (CHI EA)*, pp. 1607–1612, 2012c. **CORE: A.** 45% acceptance.
- L. A. LEIVA AND V. ALABAU. *Multimodal Interactive Handwritten Text Transcription*, chap. A Web-based Demonstrator of Interactive Multimodal Transcription. World Scientific Publishing, 2012.

³<http://www.upv.es/carta/>

- L. A. LEIVA AND E. VIDAL. Assessing user's interactions for clustering web documents: a pragmatic approach. In *Proceedings of the 21st ACM conference on Hypertext and hypermedia*, pp. 277–278, 2010. **CORE: A.** 35% acceptance.
- L. A. LEIVA AND E. VIDAL. Revisiting the K-means algorithm for fast trajectory segmentation. In *Proceedings of the 38th International Conference on Computer Graphics and Interactive Techniques (SIGGRAPH)*, p. 86, 2011. **CORE: A.** 19% acceptance. [ACM SRC semi-finalist award].
- L. A. LEIVA AND E. VIDAL. Simple, fast, and accurate clustering of data sequences. In *Proceedings of the 17th international conference on Intelligent User Interfaces (IUI)*, pp. 309–310, 2012. **CORE: A.** 23% acceptance.
- L. A. LEIVA AND R. VIVÓ. (smt) Real time mouse tracking registration and visualization tool for usability evaluation on websites. In *Proceedings of the IADIS International Conference on WWW/Internet*, pp. 187–192, 2007a.
- L. A. LEIVA AND R. VIVÓ. (smt) Herramienta de registro y visualización de mouse tracking en tiempo real para evaluación de usabilidad en sitios web. *Novática*, 189(1):53–60, 2007b.
- L. A. LEIVA AND R. VIVÓ. A gesture inference methodology for user evaluation based on mouse activity tracking. In *Proceedings of Interfaces and Human Computer Interaction (IHCI)*, pp. 58–67, 2008.
- L. A. LEIVA AND R. VIVÓ. Interactive hypervideo visualization for browsing behavior analysis. In *Proceedings of the 21st international conference companion on World Wide Web (WWW)*, pp. 381–384, 2012. **CORE: A.** 45% acceptance.
- L. A. LEIVA, D. ORTIZ-MARTÍNEZ, E. CUBEL, G. SANCHIS, V. ROMERO, R. SÁNCHEZ-SAEZ, V. ALABAU, A. H. TOSELLI, J. A. SÁNCHEZ, J. M. BENEDÍ, E. VIDAL, AND F. CASACUBERTA. Nuevas tecnologías interactivo-predictivas multimodales para el procesamiento de lenguaje natural sobre internet. Valencia IDEA research competition, ICT category, 2010. [Accesit award].
- L. A. LEIVA, V. ALABAU, V. ROMERO, F. M. SEGARRA, R. SÁNCHEZ-SÁEZ, D. ORTIZ-MARTÍNEZ, L. RODRÍGUEZ, AND N. SERRANO. *Multimodal Interactive Pattern Recognition and Applications*, chap. Prototypes and Demonstrators. Springer, 2011a.
- L. A. LEIVA, V. ROMERO, A. H. TOSELLI, AND E. VIDAL. Evaluating an interactive-predictive paradigm on handwriting transcription: A case study and lessons learned. In *Proceedings of the 35th Annual IEEE Computer Software and Applications Conference (COMPSAC)*, pp. 610–617, 2011b. **CORE: B.** 20% acceptance.
- L. A. LEIVA, M. VILLEGAS, AND R. PAREDES. Query refinement suggestion in multimodal interactive image retrieval. In *Proceedings of the 13th International Conference on Multimodal Interaction (ICMI)*, pp. 311–314, 2011c. **CORE: B.** 39% acceptance.
- L. A. LEIVA, M. BÖHMER, S. GEHRING, AND A. KRÜGER. Back to the app: The costs of mobile application interruptions. In *Proceedings of the 14th International Conference on Human-Computer Interaction with Mobile Devices and Services (MobileHCI)*, pp. 291–294, 2012. **CORE: A.** 25% acceptance.
- D. ORTIZ-MARTÍNEZ, L. A. LEIVA, V. ALABAU, AND F. CASACUBERTA. Interactive machine translation using a web-based architecture. In *Proceedings of the 16th International Conference on Intelligent User Interfaces (IUI)*, pp. 423–425, 2010. **CORE: A.** 30% acceptance.

- D. ORTIZ-MARTÍNEZ, L. A. LEIVA, V. ALABAU, I. GARCÍA-VAREA, AND F. CASACUBERTA. An interactive machine translation system with online learning. In *Proceedings of the 49th Annual Meeting of the Association for Computational Linguistics: Human Language Technologies (ACL-HLT)*, pp. 68–73, 2011. **CORE: A.** 52% acceptance.
- V. ROMERO, L. A. LEIVA, V. ALABAU, A. H. TOSELLI, AND E. VIDAL. A web-based demo to interactive multimodal transcription of historic text images. In *Proceedings of the 13th European Conference on Digital Libraries (ECDL)*, volume 5714 of *LNCS*, pp. 459–460. Springer-Verlag, 2009a. **CORE: A.** 21.7% acceptance. [**Best demo award**].
- V. ROMERO, L. A. LEIVA, A. H. TOSELLI, AND E. VIDAL. Interactive multimodal transcription of text images using a web-based demo system. In *Proceedings of the 15th International Conference on Intelligent User Interfaces (IUI)*, pp. 477–478, 2009b. **CORE: A.** 29% acceptance.
- R. SÁNCHEZ-SÁEZ, L. A. LEIVA, J. A. SÁNCHEZ, AND J. M. BENEDÍ. Interactive predictive parsing using a web-based architecture. In *Proceedings of the 11th Annual Conference of the North American Chapter of the Association for Computational Linguistics (NAACL)*, pp. 37–40, 2010a. **CORE: A.** 35% acceptance.
- R. SÁNCHEZ-SÁEZ, L. A. LEIVA, J. A. SÁNCHEZ, AND J. M. BENEDÍ. IPP-Ann: An interactive tool for probabilistic parsing. In *Workshops on Database and Expert Systems Applications (DEXA)*, pp. 255–259, 2010b.
- R. SÁNCHEZ-SÁEZ, L. A. LEIVA, J. A. SÁNCHEZ, AND J. M. BENEDÍ. Seamless tree binarization for interactive predictive parsing. In *Proceedings of VI Jornadas en Tecnología del Habla (FALA)*, pp. 47–50, 2010c.
- R. SÁNCHEZ-SÁEZ, L. A. LEIVA, J. A. SÁNCHEZ, AND J. M. BENEDÍ. Interactive predictive parsing framework for the spanish language. *Sociedad Española para el Procesamiento del Lenguaje Natural*, 45(1):121–128, 2010d.
- F. M. SEGARRA, L. A. LEIVA, AND R. PAREDES. A relevant image search engine with late fusion: Mixing the roles of textual and visual descriptors. In *Proceedings of the 16th International Conference on Intelligent User Interfaces (IUI)*, pp. 455–456, 2011. **CORE: A.** 44% acceptance.
- M. VILLEGAS, L. A. LEIVA, AND R. PAREDES. *Multimodal Interaction in Image and Video Applications*, chap. Interactive Image Retrieval based on Relevance Feedback. Springer, 2012. In press.