

Host Report Short Term Scientific Mission IS1305-21159

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The goal of this *Scientific mission* was the definition of a roadmap to enhance existing electronic dictionaries to help authors (speakers/writers) overcome the tip-of-the-tongue problem. Put differently, our ultimate goal is to help authors to find an elusive word.

Whenever we need a word, we look it up in the place where it is stored, the dictionary or the mental lexicon. Since it is unreasonable to perform search in the entire lexicon, I suggest to reduce this space in two steps. Given some input (seeds, i.e. words others than the target coming to the author's mind) the system considers all directly related words (step-1), which it organizes into a *categorical tree* to present then the potential target words in a clustered and labeled form (step-2). Put differently, I suggest to build automatically a *categorical tree* to support navigation. Rather than looking in a huge flat list, the user searches now only in the relevant part of the tree. This reduces not only the number of candidates among which to choose, but also the time needed to carry out search.

Next to specifying the roadmap we have discussed which of the known resources (WordNet, Roget's Thesaurus, BabelNet, ConceptNet, ...) could be used to carry out the two steps mentioned above, or what other alternatives one could come up with. For example, one could create automatically an association thesaurus by mining a well balanced corpus. Remains the problem of clustering and labeling, a very difficult task.

While the long-term *result* of this scientific mission will be the enhancement of an existing lexical database in order to support navigation, the short-term result will be the working out of a project to get the funding allowing us to do the work.