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Trends and Topics: How visual approaches foster synergetic effects by combining linguistic analyses and interactive exploration

Information Visualization and, more recently, the emerging field of Visual Analytics offer new possibilities for the visual abstraction of language, documents, and text characteristics. This visual abstraction can be a valuable support to explore text collections interactively and to detect and understand patterns such as trends or emerging topics which were previously extracted from textual models/features and bibliographic information. Apart from presentation and interactive exploration, Visual Analytics aims at the seamless integration of linguistic processing including statistical analyses, language models, and Machine Learning, so users can adapt these methods according to their needs and domains. Two example approaches from the area of social media analysis and trend detection in scientific literature will be discussed to demonstrate the benefits of such visual approaches.