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An Online Service for Topics and Trends Analysis in Medical Literature

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Title:	An Online Service for Topics and Trends Analysis in Medical Literature
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Author:	Spyridon Kavvadias, George Drosatos, Eleni Kaldoudi
Abstract:	<p>Topic modeling refers to a suite of probabilistic algorithms for extracting word patterns from a collection of documents aiming for data clustering and detection of research trends. We developed an online service that implements different variations of Latent Dirichlet Allocation (LDA) algorithm. Scientific literature origin from targeted search queries in PubMed, works as input while output files are available for every step of the process. Researchers can compare the results of different corpora, preprocessing texts and topic modeling parameters in a quick and organized way. Information regarding topics help users assign labels and group them to categories. Visualization of data is a contribution of our service with graphs generated on the fly providing information about the corpora, the topics, groups of topics and categories as well. We rely in modern technologies and follow the principles of agile software development to achieve scalability and discreet design.</p>