Semantic Theme Analysis of Pilot Incident Reports

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Pilots report accidents or incidents during take-off, on flight and landing to airline authorities and Federal aviation authority as well. The description of pilot reports for an incident contains technical terms related to Flight instruments and operations. Normal text mining approaches collect keywords from text documents and relate them among documents that are stored in database. Present approach will extract specific theme analysis of incident reports and semantically relate hierarchy of terms assigning weights of themes. Once the theme extraction has been performed for a given document, a unique key can be assigned to that document to cross linking the documents. Semantic linking will be used to categorize the documents based on specific rules that can help an end-user to analyze certain types of accidents. This presentation outlines the architecture of text mining for pilot incident reports for autonomous categorization of pilot incident reports using semantic theme analysis.