**AVAILABLE TECHNIQUES AND THEIR LIMITATIONS**

The techniques that are available in the present scenario for converting unstructured data to the structured data are

1. Data Mining Technique

* Pattern Matching
* Information Retrieval
* Natural Language Processing

1. Text Analytics
2. Big data analytics
3. Sentiment analysis also known as opinion mining

Keywords used:

* Model to Model Transformation
* Data mining techniques
* Text analytics
* Big data analytics
* Sentiment analysis
* Opinion Mining

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| Existing Techniques | Limitations | Reference | Model to Model Transformation Approach | Reference |
| Pattern Matching | * Low Flexibility | Gabriele Bavota, Mining Unstructured Data in Software Repositories: Current and Future Trends, Software Analysis, Evolution, and Reengineering (SANER), 2016 IEEE 23rd International Conference on 14-18 March 2016 | Model to model transformations are easy to use | Nora Koch, Santiago Meliá-Beigbeder, Nathalie Moreno-Vergara, Vicente Pelechano-Ferragud, Fernando Sánchez-Figueroa, and Juan-Manuel Vara-Mesa, Model Driven Web Engineering |
| Information Retrieval | * Drawback in exact string matching. * Difficulty in getting a conclusion from the words used in the data. | Gabriele Bavota, Mining Unstructured Data in Software Repositories: Current and Future Trends, Software Analysis, Evolution, and Reengineering (SANER), 2016 IEEE 23rd International Conference on 14-18 March 2016 | Model to model transformation can be used to convert the data with the well-defined rules | Sven Fortuin, Model Driven Engineering: the decomposition of environments, 2016 |
| Natural Language Processing | * Difficulty in extracting the meaningful data from the source data as most of the source data will be on their natural language or by using a short form for the words. | Adam Fourney, Michael Terry, Mining online software tutorials: challenges and open problems, CHI EA’ 14 Extended Abstracts on Human Factors in Computing Systems, Toronto, Ontario, Canada — April 26 - May 01, 2014 | Model to model transformation can be implemented with the help of some model transformation languages for instance ATL, QVT, etc. | Literature Study on Model Transformations Matthias Biehl Embedded Control Systems Royal Institute of Technology Stockholm, Sweden, July 2010 |
| Text Analytics | * Difficulty in identifying the meaning of the messages or the words. | Xia Hu, Huan Liu, Text Analytics in Social media, Arizona State University |  |  |
| Big data analytics | * Privacy & Security Issues * Capital Investment | Wullianallur Raghupathi and Viju Raghupathi, Big data analytics in healthcare: promise and potential, 2013, DOI**:** 10.1186/2047-2501-2-3 |  |  |
| Sentiment analysis | Difficult to extract the information or their opinion from the words used. | Bing Liu , Sentiment Analysis and Opinion Mining April 22, 2012 |  |  |
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