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| Title:                  | Tracking the Evolution of Technology and Science using Patent and Publication Data   |
| Authors:                | Singh, Gariman (/jspui/browse?type=author&value=Singh%2C+Gariman)  |
| Keywords:               | Technology<br>Science  |
| Issue Date:             | May-2023   |
| Publisher:              | IISER Mohali   |
| Abstract:               | Abstract Today, much effort is being put into tracking the changes in Technology and Science. This is because the results produced are not only informative but also useful, as is in the case with figuring out Emerging Technologies. In this work, we approach the problem from the perspective of Graph Theory or Network Science. We design a way to construct key- word networks and identifying groups of communities within them using the techniques of Graph Convolutional Neural Network, Random Walks and Louvain Method for Community Detection. Each major community identified represents a hot topic of research or sub-field in the field for which data has been taken. These sub-fields have been identified using the modern approaches of Large Language Models - BERT and GPT-3.5. |
| Description:            | Yet to obtain consent  |
| URI:                    | <a href="http://hdl.handle.net/123456789/5370">http://hdl.handle.net/123456789/5370</a> ( <a href="http://hdl.handle.net/123456789/5370">http://hdl.handle.net/123456789/5370</a> )  |
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