

LDA2Net: Digging under the surface of COVID-19 topics in literature

Topic 36 companion sheet

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This file contains the following supplementary information for Topic 36 of the manuscript “*LDA2Net: Digging under the surface of COVID-19 topics in scientific literature*”:

- Human label and automatic n-gram label proposals (Table 1)
- Summary measures (Table 2)
- Network of top 25 bigrams (Figure 1)
- Wordclouds of top 25 words by node relevance measure (Figure 2)
- Wordclouds of top 25 bigrams by edge relevance measure (Figure 3)
- Filtered (0.99 percentile) topic network (Figure 4)

Table 1: Human and automatic label proposals. Automatic label candidate for largest word community of the topic. In parenthesis: absolute frequency of the walk out of a sample of size 1000.

Human label	2-gram label	3-gram label	4-gram label
economic impact	tourism->development (10.6%)	tourism->development->business (4.7%)	tourism->development->business->market (2.7%)

Here follows the set of topic-specific measures that have been used to classify the topic and to analyse its structural properties (see manuscript for details):

Table 2: Summary measures

	JSD	Mean propensity	Variance propensity	Modularity	Barrat Clustering Coeff.
value	0.531358	0.009100	0.000545	0.159524	0.472035
rank	13	97	95	98	3

Based on the aforementioned measures, Topic 36 has been classified as a SPECIALIZED topic.

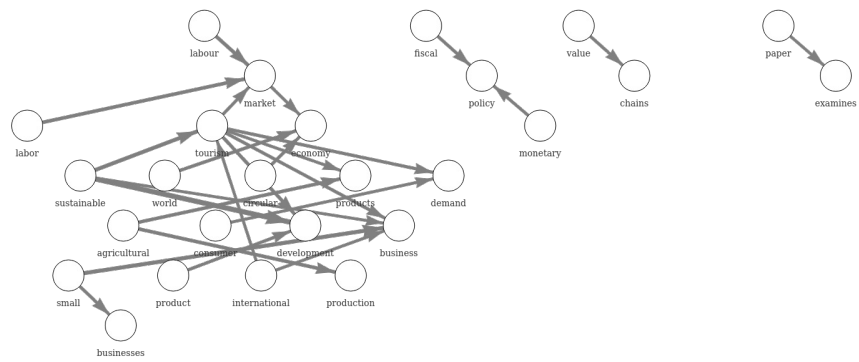


Figure 1: Network of top 25 bigrams (i.e., edges) by weight.

A word cloud featuring various terms related to sustainable business and development. The most prominent words are 'business', 'development', 'tourism', 'economy', 'sustainable', and 'policy'. Other visible words include 'manufacturing', 'international', 'companies', 'impact', 'firms', 'market', 'production', 'products', 'demand', 'agricultural', 'consumer', 'research', 'businesses', 'recovery', 'crisis', 'product', 'paper', 'value', and 'smaller'. The words are arranged in a circular pattern, with some overlapping.

A word cloud visualization of the abstract text. The words are arranged in a circular pattern, with 'tourism' and 'impact' being the largest and most central words. Other prominent words include 'development', 'article', 'provides', 'relief', 'market', 'policy', 'economy', 'recovery', 'product', 'examines', 'increase', 'hospitality', 'aid', 'paper', 'consumer', 'business', 'crisis', 'value', 'demand', 'products', 'enterprises', 'production', and 'companies'. The font size of each word corresponds to its frequency or importance in the text.

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Figure 3: Top 25 bigrams (i.e., edges) by measure.

