Topic 7 companion sheet

Digging under the surface of COVID-19 topics in scientific literature

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This file contains the following supplementary information for Topic 7 of the manuscript *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 25bigrams (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 (99 percentile) topic network (Figure 4)
- Automatic n-gram label proposals of subtopics, if multiple subtopics of large size exist (Table 4)
- Network of top 25bigrams (Figure 5)

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.

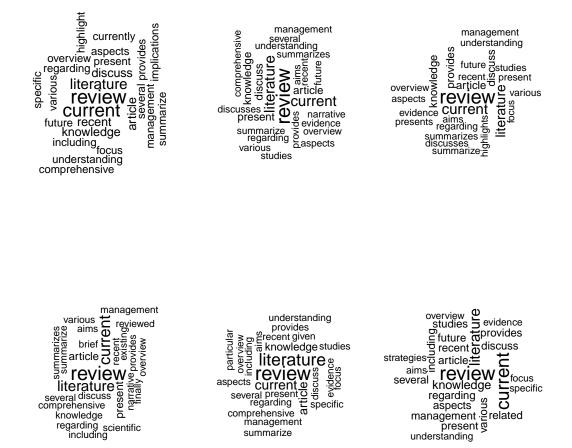
Human label	2-gram label	3-gram label	4-gram label
literature review	various->aspects (10.9%)	several->specific->aspects (1.6%)	aspects->human->papillomavirus->related (0.5%)

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	0.729031	0.008548	0.000164	0.018322	0.564478
rank	91	78	21	63	46

Based on the aforementioned measures, Topic 7 has been classified as a CROSS-CUTTING topic.



Out-degree **Betweenness PageRank**

summarize

Figure 1: Top 25 unigrams (i.e., nodes) by measure.

severe-COVID-19
severe-COVID-1

knowledge-review
freview-posent
discuss-review
discuss-review
discuss-review
discuss-review
discuss-review
discuss-review
discuss-review
discuss-review
discuss-review
review-regarding
guiterature-review
literature-review
review-literature
discuss-current
review-literature
discuss-current
review-discuss
literature
review-discuss
literature
review-strowledge
review-snowledge
review-sapects

current-understanding comprehensive-review comprehensive-review group-summarizes (propersummarizes) (propersummarizes) (propersummarize) (propersummarize-undersummarize-un

Figure 2: Top 25 bigrams (i.e., edges) by measure.

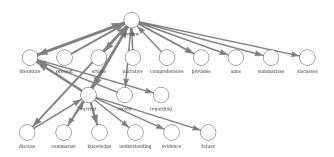


Figure 3: Network of top 25 bigrams (i.e., edges) by weight.