Topic 4 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 4 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
mortality rate related to infection	number->cases (17.9%)	number->cases->deaths (3.3%)	number->cases->deaths->per (1.4%)

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	0.785059	0.009139	0.000319	0.000000	0.584476
rank	100	100	64	22	72

Based on the aforementioned measures, Topic 4 has been classified as a CROSS-CUTTING topic.

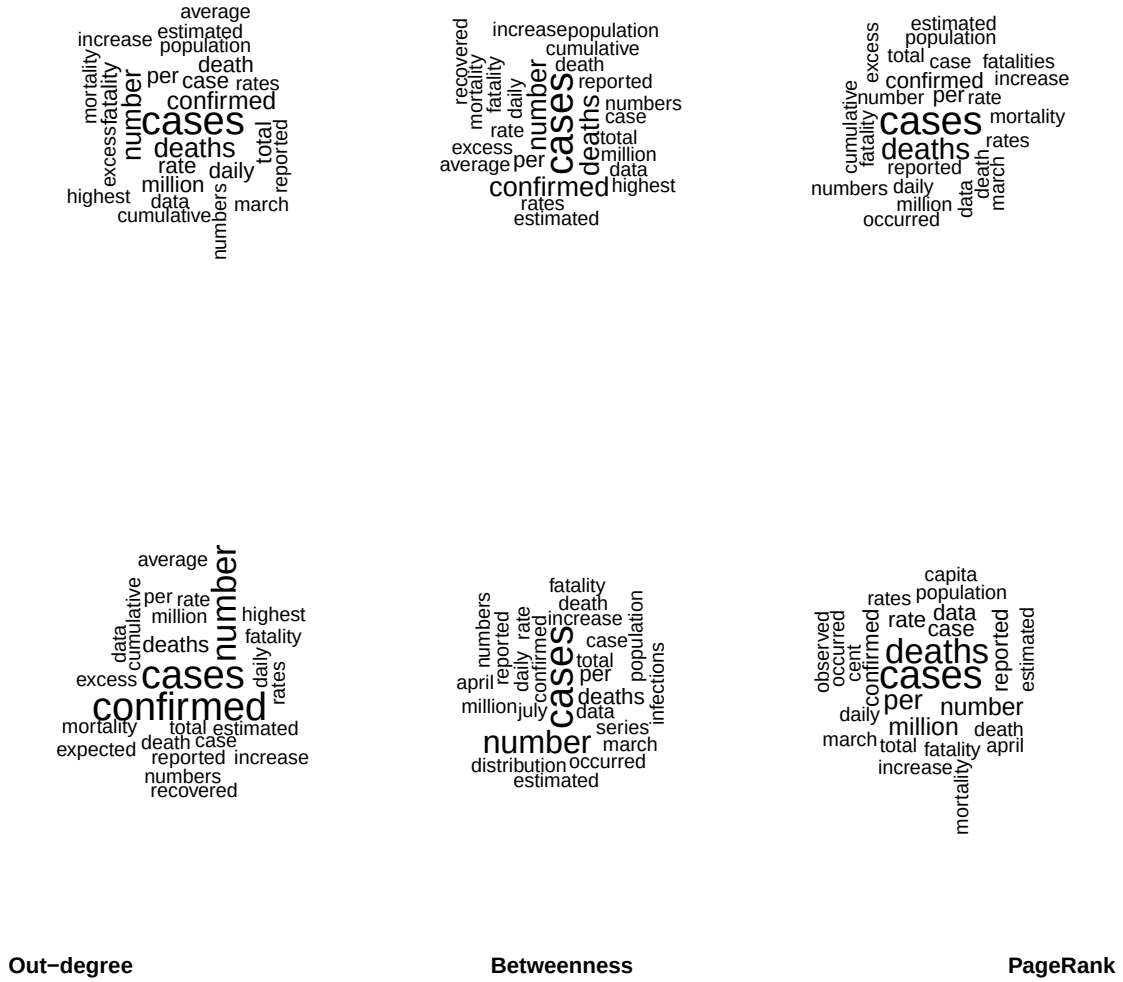

Figure 1: Top 25 unigrams (i.e., nodes) by measure.

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

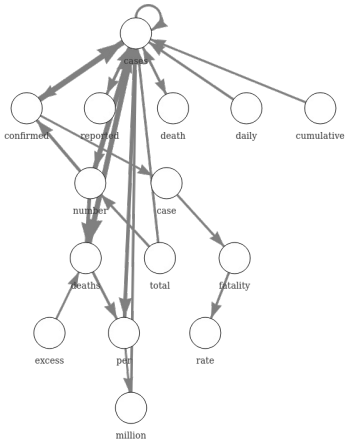

Figure 3: Network of top 25 bigrams (i.e., edges) by weight.