**COVID-19 Twitter Communication of Major Societal Stakeholders: Health Institutions,**

**the Government, and the News Media**

**A picture containing text, map, outdoor

Description automatically generatedSupplementary data**

**Supplementary Figure S1. Selection of the optimal number of topics (k=19; corpus: government health agencies Twitter accounts – all Tweets).**

**A picture containing chart

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**Supplementary Figure S2. Structural topic modeling of twitter communication (corpus: government health agencies Twitter accounts – all Tweets).**

**Diagram

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**Supplementary Figure S3. Selection of the optimal number of topics (k=23; corpus: hospital Twitter accounts – all Tweets).**

**Chart

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**Supplementary Figure S4. Structural topic modeling of twitter communication (corpus: hospital Twitter accounts – all Tweets).**

**Diagram

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**Supplementary Figure S5. Selection of the optimal number of topics (k=22; corpus: journals Twitter accounts – all Tweets).**

**Diagram

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**Supplementary Figure S6. Structural topic modeling of twitter communication (corpus: hospital Twitter accounts – all Tweets).**

**Diagram

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**Supplementary Figure S7. Selection of the optimal number of topics (k=24; corpus: print media Twitter accounts – all Tweets).**

**Scatter chart

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**Supplementary Figure S8. Structural topic modeling of twitter communication (corpus: print media Twitter accounts – all Tweets).**

**Diagram

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**Supplementary Figure S9. Selection of the optimal number of topics (k=22; corpus: broadcast media Twitter accounts – all Tweets).**

**Chart, scatter chart

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**Supplementary Figure S10. Structural topic modeling of twitter communication (corpus: broadcast media Twitter accounts – all Tweets).**

**Diagram

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**Supplementary Figure S11. Selection of the optimal number of topics (k=12; corpus: government health agencies Twitter accounts – COVID-19 related Tweets).**

**Diagram, engineering drawing

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**Supplementary Figure S12. Selection of the optimal number of topics (k=16; corpus: hospital Twitter accounts – COVID-19 related Tweets).**

**Diagram

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**Supplementary Figure S13. Selection of the optimal number of topics (k=6; corpus: journal Twitter accounts – COVID-19 related Tweets).**

**Diagram

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**Supplementary Figure S14. Selection of the optimal number of topics (k=23; corpus: print media Twitter accounts – COVID-19 related Tweets).**

**Diagram, engineering drawing

Description automatically generated**

**Supplementary Figure S15. Selection of the optimal number of topics (k=19; corpus: broadcast media Twitter accounts – COVID-19 related Tweets).**

**Table

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**Supplementary Figure S16. Prediction of user engagement (A-favoring a tweet, and B-retweeting) by post features on CDC, Mayo clinic, New England Journal of Medicine (NEJM), New York Times (NYT), CNN, and Fox News Twitter accounts.**