Flattening the Curve of the COVID-19 Infodemic: These Evaluation Campaigns Can Help!

Preslav Nakov
Qatar Computing Research Institute, HBKU
pnakov@hbku.edu.qa

The World Health Organization acknowledged that "*The 2019-nCoV outbreak and response has been accompanied by a massive 'infodemic' ... that makes it hard for people to find trustworthy sources and reliable guidance when they need it*." While fighting this infodemic is typically thought of in terms of factuality, the problem is much broader as malicious content includes not only "fake news", rumors, and conspiracy theories, but also promotion of fake cures, panic, racism, xenophobia, and mistrust in the authorities, among others. Thus, we argue for the need of a holistic approach combining the perspectives of journalists, fact-checkers, policymakers, social media platforms, and society as a whole, and we present our initial work in this direction.

We further discuss evaluation campaigns at CLEF and SemEval that feature relevant tasks (not necessarily focusing on COVID-19). One relevant evaluation campaign is the CLEF CheckThat! Lab, which has focused on tasks that make human fact-checkers more productive: spotting check-worthy claims (in tweets, political debates, and speeches), determining whether these claims have been previously fact-checked, retrieving relevant pages and passages, and finally, making a prediction about the factuality of the claims. There have been also a number of relevant SemEval tasks related to factuality, e.g., on rumor detection and verification in social media, on fact-checking in community question answering forums, and on stance detection. Other relevant SemEval tasks have looked beyond factuality, focusing on intent, e.g., on offensive language detection in social media, as well as on spotting the use of propaganda techniques (e.g., appeal to emotions, fear, prejudices, logical fallacies, etc.) in the news and in memes (text + image). Of course, relevant tasks can be also found beyond CLEF and SemEval; most notably, this includes FEVER and the Fake News Challenge.

Finally, we demonstrate two systems developed at the Qatar Computing Research Institute, HBKU, to address some of the above challenges: one reflecting the proposed holistic approach, and one on fine-grained propagada detection. The latter system, Prta (https://www.tanbih.org/prta), was featured at ACL-2020 with a Best Demo Award (Honorable Mention).

Short Bio. Dr. Preslav Nakov is a Principal Scientist at the Qatar Computing Research Institute (QCRI), HBKU. His research interests include computational linguistics, disinformation, propaganda and bias detection, fact-checking, machine translation, question answering, sentiment analysis, lexical semantics, and biomedical text processing. He received his PhD degree in Computer Science from the University of California at Berkeley (supported by a Fulbright grant), and he was a Research Fellow in the National University of Singapore, a honorary lecturer in the Sofia University, and research staff at the Bulgarian Academy of Sciences. At QCRI, he leads the Tanbih mega-project, developed in collaboration with MIT, which aims to limit the effect of "fake news", propaganda and media bias by making users aware of what they are reading, thus promoting media literacy and critical thinking. Dr. Nakov is President of ACL SIGLEX, Secretary of ACL SIGSLAV, and a member of the EACL advisory board. He is member of the editorial board of a number of journals including Computational Linguistics, TACL, CS&L, NLE, AI Communications, and Frontiers in AI. He is also on the Editorial Board of the Language Science Press Book Series on Phraseology and Multiword Expressions. He co-authored a Morgan & Claypool book on Semantic Relations between Nominals, two books on computer algorithms, and many research papers in top-tier conferences and journals. Dr. Nakov received a Best Long Paper Award at CIKM-2020, a Best Demo Award (Honorable Mention) at ACL-2020, and the Young Researcher Award at RANLP-2011. He was also the first to receive the Bulgarian President's John Atanasoff award, named after the inventor of the first automatic electronic digital computer. Dr. Nakov's research was featured by over 100 news outlets, including Forbes, Boston Globe, Aljazeera, DefenseOne, Business Insider, MIT Technology Review, Science Daily, Popular Science, Fast Company, The Register, WIRED, and Engadget, among others.