FAKE NEWS AND THE MANIPULATION OF PUBLIC OPINION

CHRISTIAN REUTER

Christian Reuter is professor for Science and Technology for Peace and Security (PEASEC) at the Department of Computer Science and is also a faculty member of the Department of History and Social Sciences at Technische Universität Darmstadt. His research focuses on interactive and collaborative technologies in the context of crises, security, safety, and peace. He has published more than 160 scientific articles on Computer Science, Information Systems (IS), Human-Computer Interaction (HCI), Computer-Supported Collaborative Work (CSCW), as well as on Crisis, Security, Safety and Peace Research and Social Media.

Per a recent study, a majority of Germans wants to see strict action taken against the targeted spread of disinformation in the news. Researchers in the Science and Technology for Peace and Security (PEASEC) research group at Technische Universität Darmstadt investigated how German citizens perceive and react to fake news and asked them what countermeasures they would consider to be most appropriate.

What phenomena have brought digitalisation to the fore in recent years? What is "Fake News"?

Information technology plays a major role in managing peace and security due to advances in digitalisation (Reuter, 2019) and especially in the ever-expanding roll-out of interactive systems (Reuter, 2018).

At the very latest, the Fake News phenomenon made its mark in public and scientific debate during the 2016 US presidential elections. Debates over Fake News were also ongoing during the 2017 German parliamentary elections. Investigations into the effect of Fake News on the German elections were conducted and showed that Fake News did not impact the outcome of the elections (Sängerlaub, 2017). In the US, there are also claims that Fake News had no influence on election results, despite its multiple occurrences (Allcott and Gentzkow, 2017). The investigations point towards a difference between the perception of Fake News, which influences a person's attitude, and the actual impact that Fake News has. Fake News is visible online and has the potential to influence important social dynamics by affecting user experiences on social media in different ways (Kaufhold and Reuter, 2015; Reuter, Pätsch and Runft, 2017; Reuter and Kaufhold, 2018).

Researchers of the Science and Technology for Peace and Security (PEASEC) research group at Technische Universität Darmstadt carried out a nation-wide representative study in Germany to probe deeper (Reuter et al. 2019). They addressed three key questions: how Fake News is assessed, individuals' experience and handling of such disinformation, and individuals' evaluation of countermeasures targeted at Fake News items. In this study, Fake News is defined as all forms of false, inaccurate, or misleading information that is framed, presented and promoted for monetary gain or to intentionally cause public harm (Kaufhold and Reuter, 2015; Reuter, Pätsch and Runft, 2017; Reuter and Kaufhold, 2018).

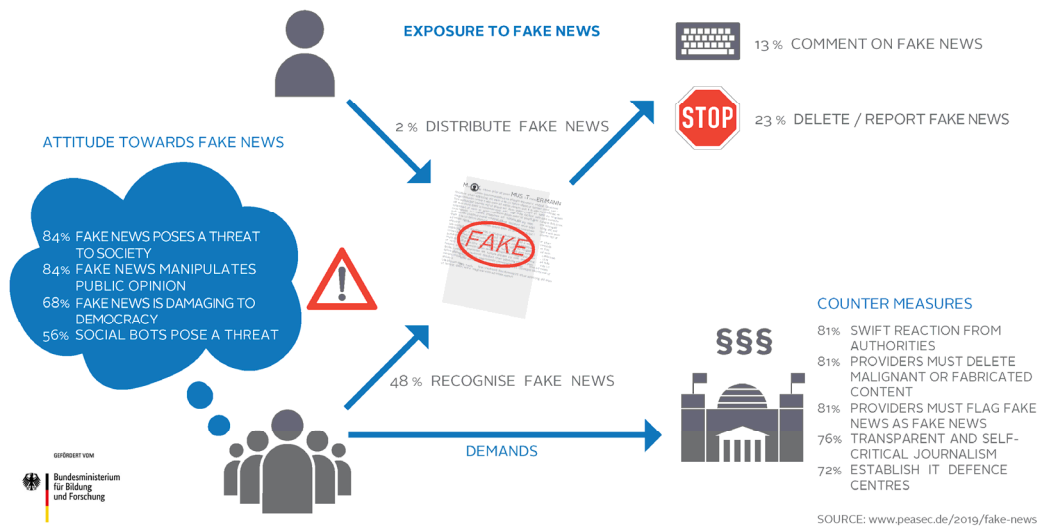## Results: The effects of Fake News on society and politics

84 per cent of the participants in the study considered Fake News to be dangerous, because it manipulates public opinion. Furthermore, 68 per cent of participants believed that Fake News was damaging democracy. Many German citizens are fearful of disinformation being used to influence public debates and elections. However, the good news is that Fake News's influence has been rather small to date; the German 2017 elections did not see a flood of Fake News. Moreover, the study's results show that, in Germany, Fake News is less likely to occur via traditional media than, for example, in the USA. About half of the participants (48 per cent) indicated that they had come across Fake News on social networks, and only 23 per cent had deleted or reported the Fake News they discovered.

The percentage of participants who had had a concrete experience with Fake News lies between 23 per cent (deleted or reported Fake News) and 2 per cent (created or disseminated Fake News). These numbers may have been skewed by the negative connotation that Fake News has; that is, how undesirable it is in the public eye. With respect to ideological motives, empirical evidence suggests that the spread of disinformation is particularly pronounced within the context of right-wing populism and extremism. Left-leaning or liberal participants were more discerning of Fake News when encountering it. Socio-demographic factors such as age and education levels also have a significant impact on how Fake News is handled: the results proved that younger and more educated individuals are better informed about Fake News.

How should Fake News be handled? What are some of the practical recommendations for action for policy makers?

The majority of the study's participants supported relevant authorities react-

ing swiftly to Fake News. 81 per cent of participants supported social media platform providers deleting malignant or fabricated content and flagging Fake News as such. 76 per cent supported the practice of transparent and self-critical journalism and 72 per cent supported establishing public IT defence centres.

EXPOSURE TO FAKE NEWS

13 % COMMENT ON FAKE NEWS

2 % DISTRIBUTE FAKE NEWS

23 % DELETE / REPORT FAKE NEWS

ATTITUDE TOWARDS FAKE NEWS

84% FAKE NEWS POSES A THREAT TO SOCIETY
84% FAKE NEWS MANIPULATES PUBLIC OPINION
68% FAKE NEWS IS DAMAGING TO DEMOCRACY
56% SOCIAL BOTS POSE A THREAT

48 % RECOGNISE FAKE NEWS

DEMANDS

COUNTER MEASURES

81% SWIFT REACTION FROM AUTHORITIES
81% PROVIDERS MUST DELETE MALIGNANT OR FABRICATED CONTENT
81% PROVIDERS MUST FLAG FAKE NEWS AS FAKE NEWS
76% TRANSPARENT AND SELF-CRITICAL JOURNALISM
72% ESTABLISH IT DEFENCE CENTRES

SOURCE: www.peasec.de/2019/fake-news

GEFÖRDERT VOM

Bundesministerium für Bildung und Forschung

Methodology

The data in this article are drawn from a nation-wide representative online survey, carried out in Germany in 2017 by the PEASEC research group at Technische Universität Darmstadt. The ISO certified panel provider GapFish (Berlin) was used, and the detailed survey results were published in 2019 (Reuter et al., 2019). The sample of participants (N=1,023) was adjusted according to age, religion, education and income levels in order to be representative of Germany's adult population between the ages of 18 and 64. In addition, participants from a wide range of education and income levels were selected.

This study was supported by several partners: the German Federal Ministry of Education and Research (Bundesministerium für Bildung und Forschung, BMBF) and the Hessian Ministry for Science and the Arts (Hessisches Ministerium für Wissenschaft und Kunst, HMWK) via the National Research Centre for Applied Cybersecurity (Nationales Forschungszentrum für angewandte Cybersicherheit, CRISP); the BMBF as part of the KontiKat research group (13N14351); and the German Research Foundation (Deutsche Forschungsgemeinschaft, DFG) within the CRC 1119 CROSSING.

References

Allcott, H.; Gentzkow, M. (2017). Social Media and Fake News in the 2016 Election. *Journal of Economic Perspectives*, 31(2), pp. 211-236.

European Comission (2018) *A Multi-Dimensional Approach to Disinformation*. Online available at: https://publications.europa.eu/en/publication-detail/-/publication/6ef4df8b-4cea-11e8-be1d-01aa75ed71a1

Kaufhold, M.; Reuter, C. (2017). Konzept und Evaluation einer Facebook-Applikation zur crossmedialen Selbstorganisation freiwilliger Helfer. In: *Proceedings of the International Conference on Wirtschaftsinformatik (WI)*. Osnabrück: Osnabrück University, pp. 1844-1858.

Reuter, C. (2018). *Sicherheitskritische Mensch-Computer-Interaktion: Interaktive Technologien und Soziale Medien im Krisen- und Sicherheitsmanagement*. Wiesbaden: Springer Vieweg.

Reuter, C.; Hartwig, K.; Kirchner, J.; Schlegel, N. (2019). Fake News Perception in Germany: A Representative Study of People's Attitudes and Approaches to Counteract Disinformation. In: *Proceedings of the International Conference on Wirtschaftsinformatik*. Siegen: AIS.

Reuter, C. (2019). *Information Technology for Peace and Security - IT-Applications and Infrastructures in Conflicts, Crises, War, and Peace*. Wiesbaden: Springer Vieweg.

Reuter, C.; Kaufhold, M. (2017). Fifteen years of social media in emergencies: A retrospective review and future directions for crisis Informatics. *Journal of Contingencies and Crisis Management*, 26(1), pp. 41-57.

Reuter, C.; Pätsch, K.; Runft, E. (2017). Terrorbekämpfung mithilfe sozialer Medien - ein explorativer Einblick am Beispiel von Twitter. In: *Proceedings of the International Conference on Wirtschaftsinformatik (WI)*. St. Gallen, Switzerland: University of St. Gallen, pp. 649-663.

Sängerlaub, A. (2017). *Verzerrte Realitäten: "Fake News" im Schatten der USA und der Bundestagswahl*. Berlin: Stiftung Neue Verantwortung. Online available at: https://www.stiftung-nv.de/de/publikation/verzerrte-realitaeten-fake-news-im-schatten-der-usa-und-der-bundestagswahl.