Fake news: origins, consequences for students, scholars and teachers, and recommended solutions

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Introduction

• Sir Tim Berners-Lee stated in 2017 that “misinformation, or fake news, which is surprising, shocking, or designed to appeal to our biases, can spread like wildfire.”

• The inventor of the World Wide Web considers 'fake news' as one of the three most disturbing Internet trends.

• The expression 'fake news' got selected by Collins Dictionaries as the ‘word’ of the year 2017.

• In 2016, Oxford Dictionaries selected ‘post-truth’ as the word of the year 2016 because emotion and personal belief seem to have become more “influential in shaping public opinion” than objective facts and because “truth itself has become irrelevant”.
Introduction

This presentation aims at

• shedding light on the origins of the expression 'fake news',
• evaluating its impact on higher education and the pursuit of truth and knowledge,
• looking at its consequences, and its perception among students and academics,
• and at recommending some solutions on how to tackle this new threat to Higher Education and Academia.

Keywords:

• fake news; post-truth; Higher Education; media literacy; critical thinking.
Part I. Origins of fake news

Definition

• According to the global report for 2017-2018 published by UNESCO (2018), “‘Fake news’ is not simply ‘false’ news.”

• A lie becomes ‘fake news’ when it gains the ability to travel fast and far, that is, when it is “retransmitted by hundreds of websites, cross-posted over thousands of social media accounts and read by hundreds of thousands” (Bounegru et al., 2017).

• The expression fake news is not recent: “Fake news appears to have begun seeing general use at the end of the 19th century”, according to Merriam-Webster, 2017.
Part I. Origins of fake news

• According to Attkisson (2018), a five-time Emmy Award winner and recipient of the Edward R. Murrow award for investigative reporting, a non-profit called First Draft “appears to be the first to use 'fake news' in its modern context.”

• She notes that "on September 13, 2016, First Draft announced a partnership to tackle malicious hoaxes and fake news reports” (Heine, 2018).

• Attkisson says that Google was a founding partner and donor behind First Draft (Abril, 2019) and that Eric Schmidt, the executive chairman of Alphabet Inc. (Google's parent company) from 2015 to 2017 (he resigned at the end of 2017; Heater, 2017), was a Hillary Clinton generous supporter (Heine, 2018).
Part I. Origins of fake news

• 2016 can be considered a turning point, because of the surprising election results in some Western countries, notably in America and because 'Fake news' went viral that year.

• Ironically, President Trump claimed the expression as his own and returned it against the Mainstream media and liberal politicians. He even claimed he invented the term (CNN, 2017) and used it to dismiss criticism against him or his administration.

• As a matter of fact, “Collins Dictionary’s lexicographers, who monitor the 4.5bn-word Collins corpus, said that usage of the term had increased by 365% since 2016” (Flood, 2017).

• The term got selected by Collins as the ‘word’ of the year 2017 (Collins Dictionaries, 2017).
Part II. Consequences for students and academia

- Students and teachers need to improve their critical thinking skills and to take the habit to do fact-checking. Plagiarism and fake data are at a record high and an increasing number of people mistrusts not only the media, but also experts and challenge scientific proven facts and the notion of Truth.

- Children and students have not been sufficiently educated on these threats and lack media literacy: a 2018 UK survey shows that “half of teachers (53.5%) believe that the national curriculum does not equip children with the literacy skills they need to identify fake news, and a third (35.2%) feel that the critical literacy skills taught in schools are not transferable to the real world.” (National Literacy Trust, 2018)
Part II. Consequences for students and academia

• The report notably shows that only 2% of schoolchildren in the UK are able to recognize fake news.

• Loos, Ivan & Leu (2018), in a replication of a US empirical study in the Netherlands, show that only 2 out of 27 schoolchildren (7%) are able to recognize that the [website Save The Pacific Northwest Tree Octopus](#) is a fake.

• The Stanford Graduate School of Education released in 2016 a research report with worrisome findings about students’ abilities to discern fact from fiction and opinion.

• Students tend to focus more on the content of social media posts than on their sources and are unaware of basic conventions for indicating verified digital information (Donald, 2016).
Part II. Consequences for students and academia

Trust in academia

• Not enough people seem to be aware that a disturbingly low number of scientific studies are not reproducible.

• The idea that the same experiment will always produce the same result, no matter who performs it, is one of the cornerstones of science’s claim to truth.

• However, at least half the published research is not reproducible; for example, an analysis of past studies indicates that the total prevalence of irreproducible preclinical research exceeds 50% in the United States alone (Freedman et al., 2015); 51% of economics papers cannot be replicated (Chang and Li, 2015).
Part II. Consequences for students and academia

• More than 70% of the researchers, who took part in study published in Nature have tried and failed to replicate another scientist’s experiment (Baker, 2016).

• This fact, added to the mistrust in media outlets and in social media, plus the many scandals related to retracted scientific papers (plagiarism, fake data, computer-generated nonsensical articles, fake positive peer-review), even in traditional and prestigious journals, undermines the trust of the public in academia (Montoneri, 2018).

• Interestingly, a 2017 survey found that 58% of people had less trust in social media news stories as opposed to 24% of people in mainstream media after learning about fake news.
Part III. Recommended solutions

• According to Jonathan Douglas, director of the National Literacy Trust: “In this digital age, children who can’t question and determine the reliability of the information they find online will be hamstrung – at school, at work and in life.” […] “We believe that teachers are the key to boosting children’s literacy skills, but they can’t do this without the proper training, support and resources.”

• Among the long term solutions to fighting fake news are literacy skills, the training of teachers, and the education of students so that they can spot dubious sources, fabricated data and news, and know the difference between fact and opinion.
Part III. Recommended solutions

• Assessments administered to children and students help understand the situation, notably showing that young and otherwise digital-savvy students can easily be duped and are often unable to reason about information they see on the Internet.

• Media literacy: teachers need to be trained to educate students and help them acquire digital as well as media literary skills.

• Critical thinking is more important than ever, especially the ability to check sources and to distinguish biased opinion from facts.

• Read a fact-checking article from a dedicated national fact-checking website; however, fact-checking may not effectively reach people who have encountered the false claims it debunks.
Part III. Recommended solutions

- In the US for example (Flynn, Nyhan, and Reifler, 2017), among those that are familiar with fact-checking, only 63% report having a “very” or “somewhat favorable” view of fact-checking.
- Positive views of fact-checking are less common among fake news consumers (48%), especially those who support Trump (24%).
- Research may helping educators track student understanding and to adjust instruction.
- Developing curriculum for teachers, piloting lesson plans in local high schools, producing videos showing the depth of the problem and demonstrating the link between digital literacy and informed citizenship may also help.
Conclusion

• It appears to be more and more difficult to judge the credibility of information online. There has always been false news, rumors, disinformation, but since 2016, it is out of control and children who were born in the digital age are surprisingly ill-equipped to assess if the news they read is reliable or not.

• Donald Trump and his supporters have redefined the word "fake news" to refer to mainstream media opposed to them.

• Many have decided to stop use the expression. In August 2017, Facebook began to use "false news" instead.

• In the wake of western events, China's Ren Xianling of the Cyberspace Administration of China suggested a "reward and punish" system be implemented to avoid fake news (Reuters, 2017).
References


References


Other references will be included in the article.