

Unravelling the basic concepts and intents of misbehavior in post-truth society

Desentrañando conceptos básicos e intentos de mala conducta en la sociedad de la post-verdad

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ABSTRACT

Objective: To explore the definitions and connections between the terms misinformation, disinformation, fake news, rumors, hoaxes, propaganda and related forms of misbehavior in the online environment. Another objective is to infer the intent of the authors, where relevant.

Design/Methodology/Approach: A conceptual analysis of three hundred fifty articles or monographies from all types of disciplines with a priority of the articles focused on terminological analysis was being utilized. A conceptual map of the terminology that is relevant to the post-truth era was created. In the case of the lack of agreement, the etymology of the terms, utilizing dictionaries, terminological databases and encyclopedias, was favored.

Results/Discussion: The approach made possible to delimit the borders between the core terms of post-truth society and to classify them according to the intents of the authors: power (influence), money, fun, sexual harassment, hate/discord, ignorance, passion and socialization. These features were identified to be able to differentiate the concepts: falsity (misleadingness, deceptiveness, lack of verification), accuracy, completeness, currency, medium, intent and analyzable unit. The conceptual map, summarizing and visualizing our findings is attached in the article.

Conclusions: We argued that disinformation and misinformation are different terms with different authors and intents in the online environment. Likewise, fake news was delimited as species of disinformation, which is limited by the medium and financial intent. The intent of hoaxers is rather the amusement of the authors or to spread discord between different groups

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of society. The intent and analyzable units as statement, claim, article, message, event, story and narrative that were identified in the literature, are crucial for the understanding and communication between social (human) scientists and computer scientists in order to better detect and mitigate various types of false information.

Originality/Value: The study provides a theoretical background for detecting, analyzing and mitigating false information and misbehavior.

Keywords: Post-truth; Misinformation; Disinformation; Fake news; Hoax; Rumor; Propaganda; Misbehavior; Conspiracy Theory.

RESUMEN

Objetivo: Explorar las definiciones y conexiones entre los términos desinformación, desinformación, noticias falsas, rumores, engaños, propaganda y formas relacionadas de mal comportamiento en los entornos en línea. Otro objetivo es inferir la intención de los autores, cuando sea relevante.

Diseño/Metodología/Enfoque: Se efectuó un análisis conceptual de trescientos cincuenta artículos y monografías procedentes de diferentes disciplinas, priorizando aquellos centrados en análisis terminológicos. Se creó un mapa terminológico, el cual fue relevante para la era de la post-verdad. Para el caso de la falta de acuerdo, se buscó apoyo en la etimología de los términos utilizando diccionarios, bases de datos terminológicas y enciclopedias.

Resultados/Discusión: El enfoque hizo posible delimitar las fronteras entre los términos básicos de la sociedad post-verdad y clasificarlos según los propósitos de los autores: poder (influencia), dinero, diversión, acoso sexual, odio/discordia, ignorancia, pasión y socialización. Estas características se identificaron para poder diferenciar los conceptos: falsedad (engaño, falta de verificación), precisión, integridad, moneda, medio, intención y unidad analizable. El mapa conceptual, que resume y visualiza nuestros hallazgos, se muestra en el artículo.

Conclusiones: Argumentamos que la desinformación y la mala información son términos con diferentes autores e intenciones en el entorno en línea. Del mismo modo, las noticias falsas se delimitaron como especies de desinformación, que está limitada por el medio y la intención financiera. La intención de los engañadores es más bien la diversión de los autores o difundir la discordia entre diferentes grupos de la sociedad. La intención y las unidades analizables como declaración, afirmación, artículo, mensaje, evento, historia y narrativa que se identificaron en la literatura, son cruciales para la comprensión y la comunicación entre los

científicos sociales (humanos) y los informáticos para detectar y mitigar mejor las tipologías de informaciones falsas.

Originalidad/Valor: El estudio proporciona una base teórica para detectar, analizar y mitigar información falsa y mal comportamiento.

Palabras clave: Post-verdad; Desinformación; Desinformación; Noticias falsas; Farsa; Rumor; Propaganda; Mala conducta; Teoría de la conspiración.

Introduction

The terminological inconsistency in the definition of the term information is still not solved (Floridi, 2011; Fetzer, 2004; Fox, 1983; Soe, 2018) and the new challenges of the post-truth society caused that the terms misinformation, disinformation, fake news, rumors, hoaxes etc. became another thorn in researchers' side.

The inconsistency of the terminology might have arisen because of the multidisciplinary of the problem, as this questionable information appears in the studies of various disciplines. It can be found mainly in fields like medicine, business, technology and politics, the same as in everyday life; in traditional as well as in social media (Kumar & Geethakumari, 2014). The media and sciences (social, computer sciences and humanities) have various objectives and levels of exactness in defining and using terminology, therefore, to conduct a decent conceptual analysis, a cooperation between the researchers from various fields is needed. Basically, three hundred fifty articles or monographies from all types of disciplines with a priority of the articles, focused on terminological analysis were analyzed and the terms labelled by their attributes. According to the attributes, a conceptual map of the terminology that is relevant to the post-truth era was created. In the case of the lack of agreement, the etymology of the terms, utilizing dictionaries, terminological databases and encyclopedias, was favored.

Various studies strived to define the aforementioned terms individually: disinformation was specified by Fallis (2009; 2015) and Fetzer (2004), misinformation was rigorously delineated together with information by Fox (1983), a very exhaustive definition of fake news was provided by Gelfert (2018) and the classification of fake news can be found in Edson *et al.* (2018). Some studies compare misinformation and disinformation (eg. Soe, 2018) and some differentiated the terms of information, misinformation and disinformation Karlova and

Fisher (2013). Nonetheless, an article, looking for differences and connections between disinformation, misinformation and fake news, together with the other terms, often mentioned in the literature (rumours, hoaxes, urban legends and various types of community abuse and manipulation) is lacking.

Unravelling the concepts of information, misinformation and disinformation

According to the analysis, information (misinformation and disinformation) can be seen as the widest terms. The term information designates everything from the property of matter that eliminates uncertainty, through meaningful data about the environment, its state and processes, to the content of the communicated message or the product of knowledge that can be fixed in characters (Jonák, 2003) or propositions (Fox, 1983). Thus, it can be spotted either with the medium or without the medium, having a presence in peoples' communication.

In terms of the attributes of information, misinformation and disinformation, five features were identified by Karlova and Fisher (2013) to be able to differentiate the concepts: truth, accuracy, completeness, currency and deceptiveness. We elaborate on them along with the other characteristics that were identified as differences between all of the concepts: medium, intent and analyzable unit. Although scientists cannot agree on the truthfulness of information (Floridi, 2011; Fetzer, 2004), they are united in some level of the falsity of disinformation, misinformation and their subcategories. Departing from the universal truth claims, more tentative labelling for the subcategories of disinformation and misinformation is that they are unsupported (groundless) or unverified. The incompleteness, inaccuracy or misleadingness that are characteristic for disinformation and misinformation (Soe, 2018; Karlova & Fisher, 2013; Sorgatz, 2018) make the distinction even more clear.

Inferring the intent of disinformation, propaganda and discussion manipulation

The supposed malicious intent to deliberately deceive the user is considered as one of the signals for disinformation identification (Soe, 2018; Karlova & Fisher, 2013; Fetzer, 2004; Sorgatz, 2018; Fallis, 2015) as well as for fake news identification (Edson *et al.*, 2018; Gelfert, 2018). Still, the authors do not

elaborate, which particular intents should be taken into account when researching disinformation. Although the intent of the authors or users is difficult or impossible to deduct from the information itself, some indications can be inferred from the contextual circumstances, where it appears or even from the etymology of the terms.

For example, the word disinformation was coined in Russian vocabulary as *desinformatsiya* (1923) that means "false, mistaken or misleading information in an intentional, deliberate, or purposeful effort to mislead, deceive, or confuse" (Fetzer, 2004, p. 231), and it was primarily connected with spies and intelligence services. According to Fallis (2015), the term to disinform denotes an activity very close to lying, making that a government does not lie, just disinform. Throughout history as well as today, it is the governments and politicians that are often (but not exclusively) connected with creating disinformation. Accordingly, the origin of the word govern is from Latin *gubernare* "to direct, rule, guide, govern" (Online Etymology Dictionary, n.d.) that suggests power as a driving force. Thus the notoriously known sentence "information means power", economic power, as well as social, political and human, gains with the malicious intent of the deliberate deception meaning also for disinformation.

Propaganda is characterized by the repetition of lies (Sorgatz, 2018) or disinformation as argued above. The author mentions black and white propaganda, whereas black propaganda is an endeavor to discredit a political opponent, while white propaganda presents "just" the virtues of a promoted person. The tools of propaganda are very similar to unethical propagation that undesirably appeared even in blogs, generally considered as credible. The concrete methods included forged documentaries, fake reviews, planted evidence, staged media spectacles and PR articles/ content farms (Holiday, 2013). The objective of these tactics is to influence public opinion about a product, but it is utilized in politics as well (Hrková, 2014)

Besides that, Sorgatz (2018) designates other methods, utilized especially for describing discussion manipulation in the communities with the aim to shift public opinion in politics. Flooding the discussions with numerous comments of fake accounts (sock puppets) to spread mass confusion and create the illusion of widespread support in democratic elections is called astroturfing and can be spotted in some political campaigns. Sock puppets promote their ideology, create fake reviews

and are often acting as friends. Swiftboating is the unscrupulous attack on a political rival, targeting his strengths rather than weaknesses (as was the case of John Kerry and his military valor). Virtue signaling connotes exhibitionistic expression of moral values to show the righteousness of the actor and this method is mostly weaponized by the alt-right. The money is a common motivation (and intent) for these fake community participants as these people are often employed to perform these activities (Hrčková, 2014).

Understanding fake news

Fake news, as species of disinformation (Gelfert, 2018), are understood as news articles that are intentionally and veritably false and could mislead readers (Allcott and Gentzkow, 2017). Fake news is a medially biased term, often describing any false stories spreading on social media (Edson *et al.*, 2018). It is true that social media are successful channels for getting disinformation from politicians to general people. But not everything should be called fake news. According to a conclusion of a very comprehensive analysis of Gelfert (2018), fake news is a “deliberate presentation of (typically) false or misleading claims as news, where the claims are misleading by design” (p. 84). The phrase ‘by design’ refers, according to the author to systemic features of the design of the sources and channels, where fake news is propagated and as such manipulates the audience’s cognitive processes. It is challenging to determine, which posts on social media can be considered as fake news and which is misinformation (or rumours).

Gelfert (2018) argues that:

There is the recognition that the medium of the internet (and social media, in particular) has been especially conducive to the creation and proliferation of fake news“ (Rini, 2017) adds that a “fake news story is one that purports to describe events in the real world, typically by mimicking the conventions of traditional media reportage, yet is known by its creators to be significantly false, and is transmitted with the two goals of being widely retransmitted and of deceiving at least some of its audience (p. 96).

Thus, the presence of the article in the post on social media might be appropriate to expect. Another aspect of fake news in traditional, alternative or social media is its topicality – news are de-

finied as “*information or reports about recent events*” (Cambridge dictionary, n.d.).

As traditional, alternative or social media usually benefit from the money from advertisements, the intent that might be inferred from the activity of its content creators or manipulators is a financial profit. Whether it is yellow journalism or biased news with clickbait articles or even manipulated images (photoshopping) or videos (deep fake), portals with PR articles or content farms, the intent of the creator to earn money may be expected with the presence of the medium. Whether money is the sole motivator as was the case of Macedonian students, creating fake news about the US presidential candidates or the intent was mixed (as was the case of Russian trolls), the intent of monetization might be (besides the others) also perceived as the attribute that distinguishes fake news from disinformation.

Debunking gossips, rumors, hoaxes, and urban legends

Another concept that could be perceived as interchangeable with the term disinformation, but should be rather considered as a narrower term of it, is *hoax*. Hoax is defined as something intended to deceive or defraud, probably it is a contraction of the word hocus. Hoax is firstly recorded at the end of the XVIII century (Dictionary.com, n.d., Boese, 2002). Gregor and Vejvodova (2018) characterize hoaxes as alarm (and many times useless or unauthorized) chain letters. In the online environment, it is recognized as one type of chain letters, sent mainly by e-mails, but also in social networks (McDowell and Householder, 2016). The usual attribute of hoaxes is the call to action in order to be shared by the audience even quicker. Another type of chain letters is an urban legend – a story that is believed to be true and that needs to make cultural sense to become established (Whipps, 2006) The intention of the actors, who generate hoaxes, is to trick as many recipients as possible and to have fun in the process of deceiving (Gregor & Vejvodova, 2018). As such, they share a similar intention with satirists or parodists, identified by Edson *et al.* (2018). The difference is that the recipient of satire or parody usually knows that she is tricked. Still, this is not always true and some rumors or hoaxes were created by sharing parody or satire too. The case of satirical website *loyals.com* that published an article about a Russian doctor that invented a vaccine against homosexuality and the alterna-

tive websites and partisans ingested the bait, can be mentioned as an example (Gregor & Vejvodova, 2018).

There are different types of hoaxes, but a rigorous classification is missing in the literature. Boese (2002), the author of the portal and monography Museum of hoaxes classifies among others rumors, forgeries, pranks, impostors, hate crimes, financial scams, phishing and various false information, categorized also according to the type of science among hoaxes. Some hoaxes, usually the racially motivated hate crimes are not just pure rumors to amuse the author, but use to frighten or share hate with the audience. Some creators of hoaxes have apparently financial motivations to spread hoaxes (e.g. financial scams). Interestingly, also hoaxes might become fake news as journalists were both hoaxing and being hoaxed (Boese, 2002).

Social scientists have long been concerned about defining the borders of such phenomena as gossips, rumors, hoaxes, and urban legends (Gelfert, 2018). Some agreement is that whereas a gossip is relevant only for a specific group of people and is disseminated within a fixed social network, rumors are characterized by the propagation of unauthorized messages that are of universal interest and are disseminated diffusely in social networks (Bergmann, 1993). Rumors, may sometimes divert from their origins and become consolidated in urban legends (Allport and Postman, 1947), which may be reported as factual by mass media. However, some computer scientists utilize the term rumors to denote items of information that are unverified at the time of posting (e.g. Zubiaga *et al.*, 2018). This definition is very general and overlaps with both misinformation (disinformation) and fake news on social networks and would need more specification.

A humble proposal to solve the misunderstandings about misinformation

Misinformation is the term that is most misleadingly defined in various sources, as the almost contradictory definitions make the demarcation of the term a demanding task. Some information scientists (e.g. Hernon, 1995; Soe, 2018) see misinformation and disinformation as mutually exclusive categories and some treat disinformation as a subset of misinformation (Skyrms, 2010; Floridi, 2011). The term misinformation is used to refer to inaccurate information in general (Fox, 1983, Sorgatz, 2018) and misleading and false information

(Meriam Websters n.d.). Its intent is to deceive (Oxford Living Dictionary, n.d., Cambridge dictionary, n.d.) or it is shared independently on the intent of deceiving (Fetzer, 2004; Sorgatz, 2018, Dictionary.com, n.d.). In our opinion, sharing is a crucial attribute of misinformation. Placing the term on the side of users (not authors) that share misinformation for various reasons (socialization, self-expression, ignorance, passion, etc.) (Chen *et al.*, 2015) makes all the above definitions valid: this misinformation is inaccurate information in general, containing also disinformation (that does not change, but is shared unknowingly), and they are also mutually exclusive concepts in terms of intent.

As with disinformation, the narrower terms for misinformation are fake news and chain letters that were primarily created with malicious intent but might be shared on social media with or without the malicious intent of deceiving, as the users are often unaware of misinforming. These users, also called hyperpartisan accounts (or useful idiots) share disinformation together with another (un)intentionally false information, usually without basic information literacy or interest in truth. They just pick and puzzle the (mis- and dis-) information to confirm their already established opinions and worldview. This correlates with the definition of bullshit of Princeton philosopher Harry Frankfurt (Sorgatz, 2018) that states, it is impossible for someone to lie unless he thinks he knows the truth – the eyes of the “bullshitter” are not on the facts at all.

Conceptual foundations of beliefs and misbehavior in the post-truth society

If we include a wider definition of disinformation as products of (online) communication with various malicious intents, trolling in virtual communities is in the spotlight of many studies (Blaho, 2018). Trolling represents misleading, destructive, or disruptive behavior in an online community without the obvious intent at first glance. In fact, trolls tend to look mainly for entertainment and the internet is their playground (Buckels *et al.*, 2014). The posts and comments of internet trolls use to be offensive, divisive and controversial (Techopedia, n.d.) or do not make sense at all. Flaming may be considered as a subtype of trolling, which is characterized by constant profanations and insults (Coles & West, 2016). In online computer games, such undesirable behavior is referred to as griefing, that is, a behavior with the aim of spoiling

the gaming experience (Thacker & Griffiths, 2012). Kumar *et al.* (2017b) further distinguish vandalism as destructive adjustments in the private or public online environment (e.g. Wikipedia).

The focus of psychological research in the area of online misbehavior is placed also on cyberbullying and cyberhate (behavior with the intent to spread hate or discord) and the manifestations of sexual harassment in cyberspace as sexting and cybergrooming (Blaho, 2018). Hardaker (2010) distinguishes between trolling and cyberbullying, especially in terms of the intent of the behavior itself. While in the case of cyberbullying, there is usually a relationship between the aggressor and the victim, the troll usually does not have a defined goal and the potential network of possible victims is generally wider.

There are various implications of receiving malevolent and deceitful information. Besides psychological problems, some social scientists mention disbelief and false belief. Bahna (2017) for instance refers to conspiracy theories as beliefs that various phenomena are planned by secret actions of powerful people and organizations, targeted to harm and control the public and misleading and deceiving them at the same time (Bahna, 2017). The authors of conspiracy theories usually believe in such stories that are created according to some narrative. These beliefs are also being shared rapidly on social media and as such and because of their deceptiveness, they should be also addressed and targeted by the research. Nevertheless, a lot is unclear about the origin and intent of conspiracy theories, e.g. computer science studies do not address this issue at all.

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Concluding remarks

The basic relationships between the analyzed terms are delineated in the conceptual map (Figure 1). In this article, we argued that disinformation and misinformation are different terms with different authors and intents in the online environment. Likewise, fake news was delimited as species of disinformation, which is limited by the medium and financial intent besides the intent of power or influence that is more characteristic for disinformation. The intent of hoaxers is rather the amusement of the authors or worse, to spread discord between different groups of society. Besides the others, the biggest gap was identified between defining rumors in social and computer sciences and together with hoaxes and urban legends, they lack a solid terminological demarcation. The intent and analyzable units as statement, claim, article, message, event, story and narrative that were identified in the literature, are crucial for the understanding and communication between social (human) scientists and computer scientists in order to better detect and mitigate various types of false information. Nevertheless, a lot remains undiscovered, among other things the origin, formation and intent of the conspiracy theories and urban legends were the topics of lower research interest.

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