

“Taming” information overload

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Information overload (IO) is a set of objective and subjective difficulties, caused by the amount and complexity of information available, as well as by our inability to handle such situations. IO is by no means a myth, especially if we look at the history of recorded information that showed most of the time a perception of overload (Koltay, 2020). The excessive amount of information is not the sole cause of overload, but also its diversity, complexity, and novelty can be blamed (Bawden, & Robinson, 2020).

Being overloaded by data seems to cause the same symptoms as IO, thus we can speak about data overload (Virkus, Mandrel, & Pals, 2018). Nonetheless, the similarities between information and data seem to outweigh the differences between them, therefore it is reasonable to name both phenomena *information overload*.

Information overload has been referred to by using many names, including information overabundance, infobesity, info glut, data smog, information pollution, information fatigue, social media fatigue, social media overload, communication overload, and cognitive overload.

The levels of overload

There are two levels of IO. The macro level is related to the limits of physical storage and our processing capacities for managing information properly. This type of IO is amenable to technological solutions, thus may be mitigated by appropriately applying information architecture, interface design and user experience. However, their power in this regard is generally limited, because overload is often discovered only retrospectively and by indirect means (Davis, 2011).

The micro level of IO is essentially a failure to filter out unnecessary, surplus information. Problems on this level are solved by making use of a broader repertoire of social, qualitative approaches that are not available in the case of technological solutions. The essence of the

latter strategies is making decisions about keeping and discarding information. However, choosing reliable sources makes less likely that we will suffer from overload even if we are facing a high volume of information (Koltay, 2017).

Coping strategies

There are some common strategies, when we are faced by IO. Overloaded people often avoid, forget, or destroy information and data. Deciding what to keep, is a question of establishing the credibility of their sources through critical assessment that should be coupled with making use of adequate filters to information. These processes also may lead to withdrawing from information by limiting the number of notifications received, unfollowing social media accounts, ignoring e-mails, or social media messages entirely or for a limited period.

Satisficing, also termed *bounded rationality*, is also a way of making choices, when we think that it is not feasible to compare the benefits of possible options thoroughly. In essence, satisficing is a way of efficiently getting something that is good enough for the purpose, although this solution may not be deemed necessarily optimal (Bawden, & Robinson, 2020).

A relatively widespread solution to micro level information overload is engaging in varied literacies, such as information literacy, digital literacy, media literacy, as well as and data literacy. All of them require critical approaches to information and data.

Today, it seems to be less important to demonstrate the usefulness of these literacies than to underline that these literacies have gone through a process, leading to convergences among them, the root of which is in the mergers of different information and communication technologies and varied forms of media (Livingstone, van Couvering, & Thumin, 2008).

One of the contemporary definitions of information literacy below clearly shows this convergence.

“Information literacy relates to information in all its forms: not just print, but also digital content, data, images and the spoken word. Information literacy is associated and overlaps with other literacies, including specifically digital literacy, academic literacy and media literacy. It is not a stand-alone concept, and is aligned with other areas of knowledge and understanding” (CILIP, 2018).

Due to their closeness, data literacy is in some cases treated as a component of information literacy (Calzada Prado, & Marzal, 2013). Media literacy is not constrained to specific formats any more. It is more about primary skills, such as critical thinking, and social skills, which nonetheless must be adapted to specific media developments (Pfaff-Rüdiger & Riesmeyer, 2016).

Emphasizing critical thinking has been always seen as a common denominator among

literacies, because determining the purpose of the given message and assessing how central claims are developed in it is of outmost importance. We also should make judgements about the messages' intended audience by distinguishing between the different kinds of reasoning and presentation, and examining the evidence and sources of the argument.

Metacognitive strategies, used to monitor and control our cognition and selecting the most appropriate cognitive strategy for the task that we are undertaking also offer a tool for coping with information overload (Walton, Pickard, & Dodd, 2018). Quieting our mind by making use of contemplative practices is similarly helpful, and fits well with time-related issues (Latham, Hartel, & Gorichanaz, 2020).

Slow approaches to information call for finding time-related solutions, directed towards regaining control of varied elements of the information environment by taking time for comprehending it, which is aided by following traditional forms of consumption. They stem from the Slow Movement, which expresses dissatisfaction with the pace of life in developed industrial societies and is akin to Slow Food ideals. While most models of information behavior, including the models of varied literacies treat information as something that is necessary, thus must be acquired, in a slow perspective, being informed is viewed less as a finite process, but as some experience that surrounds us. This means that the life of information does not end with acquiring, using and being stored (Poirier, & Robinson, 2014). Putting emphasis on experience is also a characteristic feature of up-to-date views on information literacy.

The prevalence of post-truth phenomena, such as fake news, misinformation, and disinformation may augment overload. This effect can be reduced by analysis taken from media literacy, which means breaking down a message into meaningful elements and judging the value of an element by comparing it to well-defined criteria can be useful (Potter, 2018)

The effect of social media

Solely navigating the web and the few minutes that people typically spend on visiting a website, gives insufficient time to gain proper understanding. Neither do quick visits to webpages stimulate digesting information properly. A strong tendency to judge the merit of information by its popularity instead of appreciating its relevance, quality and reliability often characterizes the use social networking services (SNS). The ease of producing information and the expectation of constant novelty in SNS are important source of overload, coupled with disseminating information without examining if it is true or false. Not having enough time to reflect on the quality and truthfulness of information may hamper our ability to filter out misinformation and disinformation, and fake news, which are often spread via SNS (Bawden, & Robinson, 2020).

One of the problems in this environment is that – instead of obtaining control over information and deciding about its usefulness themselves – people outsource evaluation to the algorithms of dominant digital services (Sundin, & Carlsson, 2016).

The use of social media is often accompanied by the eagerness for receiving instant gratification. This ruins our ability to wait by exercising self-control. However, exaggerated self-control may impede spontaneity and flexibility (Samuel, 2017).

In order to avoid being overloaded, many people deal with information by unwittingly applying the principle of least effort. Acquiring information through SNS involves minimal physical, technical and mental effort, especially if it fits someone’s prior beliefs. In consequence, people do not always invest their full mental capacities in the tasks of information acquisition and evaluation (Materska, 2014).

All above ways of mitigating the symptoms remind us that information overload is not unidirectional. While enormous quantities of information are pushed to us, not only the providers of information can be blamed for the difficulties and inconvenience. It is also consumers, who should take responsibility for avoiding the consequences, because they have the potential to select and pull only information, which is potentially useful. The questions obviously is whether they want to.

Conclusion

IO is one of the perhaps best known “information pathologies” (Bawden & Robinson, 2009), signaling to a certain degree the existence of a “dark side” of information. Nonetheless, the technological and social approaches to mitigating its syndromes, i.e. the “bright side” of information is also worth of attention (Koltay, 2017). Accordingly, the best way of “taming” overload, individually and socially, is using a variety of coping strategies, and seeking a mindful balance in consuming information and data (Bawden, & Robinson, 2020).

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