# Infotainment

Using infotainment for science communication is a two-edged sword: while it may help engagement, making light of a topic can reduce perceptions about its seriousness. The researchers suggest that the use of infotainment should be determined by the aims of the communicators and the nature of the target audience. If the purpose is simply to convey information, then infotainment is likely to be the most effective and it has the additional benefit of engaging recipients that lack a university education. However, if the purpose is to affect attitudes and persuade an audience, then an expository narration is likely to be most effective.

## 1. Introduction

There are facets of society that do not respond well to direct forms of science communication about such topics as human-induced climate change. In particular, education, age and gender can affect perceptions of climate change [1][2]. As one way to address this disparity in reactions to messaging, Wozniak, Lück and Wessler [3] argued for using a multimodal approach to communication that includes the use of comedic narratives that form the basis of infotainment (information combined with entertainment).

Humor can be an excellent way to facilitate engagement with science both in person [4] and online [5]. Indeed, the use of humor in online videos as part of an infotainment-style narration has been shown to improve acquisition and recall of information about science-related subjects such as climate change [6].

Viewing online videos on social media platforms such as YouTube, Facebook and TikTok has become the fastest-growing segment of media consumption in society [7], where user-generated content (UGC), especially, is consumed for infotainment [8]. The popularity of infotainment-style user-generated online videos provides a potential opportunity to communicate science, especially to the harder to reach areas of society [6].

In addition to humor (i.e., providing amusing content), infotainment in user-generated online science videos is typically defined by the use of storytelling [9] and popular personalities [10]—all of which can contribute to their popularity [7][10]. Infotainment is considered an important strategy for telling stories in popular online videos about science [11] and viewers of such online science videos are more likely to recall information because they regard it as relevant to themselves [12]. However, there are potential downsides to using infotainment in videos, in that it may reduce the perception of seriousness [13] or even give a wrong impression altogether [14].

Given the popularity of online videos and the potential positive effect that an infotainment style of narration can have on engagement, the researchers set out to test whether online videos that use an infotainment style can be a useful tool for communicating the risks of climate change and enhancing perceptions of the relevance of climate change.

## 2. Perceptions

The media play an important role in shaping public perceptions and attitudes towards climate change. Most often, media tend to focus on sensational elements: conflict and debates [15][16], uncertainty [17] and the partisan dimensions of an issue [18][19][20]. This variety of perspectives can create an impression that there is no clear scientific consensus on a topic and, ironically, viewers' perceptions about the relevance of a topic like climate change in online videos may be more affected by their personal biases than a video's actual content [21].

The way in which a message is emphasized or constructed has an effect on how a receiver interprets the message [22][23]. In this research, the researchers compare the effect of two forms of stylistic narrations in online videos on an audience's perception about climate change: the infotainment style and the expository style. The expository style of narration is that

in which a narrator addresses the viewer directly, usually through a voice-over narration that conveys the impression of objectivity and well-grounded argumentation [24]. It is the mode of representation employed in most documentaries [25], allowing it to serve both educational and propaganda purposes [26].

By contrast, an infotainment style of narration is, as the name suggests, a combination of information and entertainment [27][28][29]. Infotainment has become an increasingly popular style of narration in online videos about science [8]. In spite of that, research on the impact of infotainment on perceptions about climate change is scarce, e.g., [30][31]. Davis et al. [6] showed that viewers of an online video about climate change without a university degree had a distinct preference for a narration that used an infotainment style, whereas those with a university degree were most likely to prefer and believe narrations that were presented in an expository style. However, there is no empirical evidence about how narration styles in online videos may affect viewers' perceptions of climate change.

From the perspective of science communication, not only is an understanding of the science about climate change and a preference for its means of delivery important, but also the perceptions and awareness of its relevance are also important aspects of effective communication [32]. It is crucial, therefore, to understand not just how an infotainment style may affect information transfer about climate change, but how it impacts attitudes about climate change: does making jokes about climate change undermine its seriousness or bolster the public's appreciation of its seriousness [33]?

## 3. Infotainment

Infotainment can be regarded as part of the wider trend for entertainment that has been one of the key driving forces in television for the last few decades [13][34][35][36]. However, with the rise of the internet and videos streamed online and on-demand, infotainment has become a much more prominent feature, especially for UGC [7].

Despite its increasing prominence, conveying information in the form of infotainment has often been criticized. Some critics argue that infotainment increases the amount of irrelevant information, displacing the relevant information [37], to the point that what is trivial can overcome what is important [38]. It is also argued that infotainment is often linked to sensationalistic approaches in which the style is more important than the substance, where the entertainment factor becomes more relevant than the content itself [28].

Indeed, infotainment is sometimes described as being "cultural fast food" because when users digest relatively serious science information that way, they are most likely to be affected by sensationalism and the personalities of the information providers [39][40]. Some have even contended that when information adopts the characteristics of spectacle, as it often does when using an infotainment style of narration, this degrades actuality [41] and creates "misinformation" under the illusion of knowledge [37]; a related phenomenon to that which has become prevalent in society recently as "fake news" [42][43].

Others argue that infotainment is an open door to a more democratic public discourse [44] as it produces a type of content with wide popular appeal that makes information accessible to certain social groups that are not otherwise interested in traditional information [6][45][46]. Infotainment is also believed to be a powerful means of communicating science, irrespective of social groupings, especially when the content is complex and controversial [39]. As a consequence, it is used widely for popularizing science in online video channels [9][47].

## 4. Defining Infotainment

The most prevalent strategies used to build infotainment content based on science topics are: (i) structuring content through stories, (ii) personalization and (iii) the use of humor [6], and this is especially so when communicating issues relevant to climate change [48].

### 4.1. Storytelling

A story provides structure that helps to organize the ideas in a similar pattern to that of most fictional films: a protagonist has a well-defined objective and is immersed in a succession of events, but encounters difficulties, resulting in a conflict that finally leads to a resolution. This way of structuring scientific content can be effective, as it employs a narrative scheme that is familiar to the viewer and, at the same time, it provides a guiding thread that keeps the viewer oriented [25].

The use of storytelling, in contrast to non-narrative forms [49], can allow for more effective communication as it can increase audience engagement and memory recall [50]. Storytelling can enhance learning by connecting the causes and consequences of climate change in a sequential narrative [51].

## 4.2. Personalization

Personalization, which helps a viewer relate to characters on the screen, is regarded as an essential element of entertainment [52] and, by extension, an important narrative device to create infotainment. Characters can help present scientific facts in a way that facilitates identification in the viewer, revealing a human aspect with which the public can connect. Online science videos with a consistent personality presenting them are more popular [10].

## 4.3. Humor

Humor is a very important and prominent dimension of infotainment, and has become more prevalent in public communication about science [53]. Humorous science audio-visual content includes ingredients that are designed to increase the entertainment value, such as anecdotes, curiosities and funny expressions. Exposure to such humor (e.g., political satire), has been found to influence attitudes to the subject of the humor, especially in young adults [54]. In an examination of 826 online science videos, nearly a quarter of them (23%) used elements of humor [8].

These three dimensions of infotainment—stories, personalization and humor—were used in this research to define and produce an infotainment style of narration.

# 5. Cultural Influences

Hofstede et al. [55] make a distinction between universal human nature, which is shared by all people, and cultural influences, which are "the collective programming of the mind that distinguishes the members of one group of people from others." Different cultures may be classified according to six dimensions [56]. Another dimension, which more or less encapsulates those of Hofstede, is Hall's concept of a continuum from low-context to high-context cultures [57][58]. Although the notion of low- and high-context cultures has been criticized in principle as being too simplistic, static and outdated given the fluid global societies [59], it has nevertheless proved to be a useful and robust measure to describe and interpret patterns of communication in a number of contexts [59][60][61]. Communication in high-context cultures tends to be more indirect, reserved and understated, with an intention to maintain harmony and a preference for nonverbal cues, while communication in low-context cultures is more direct, precise and open, being based on feelings or intentions [59][62]. Low-context cultures place the emphasis on what is said, while high-context cultures emphasize the context, such as who said it, when, why, how, where and to whom was it said [63].

Expository narrations, which are designed to lay out the facts, would be expected to appeal to low-context cultures especially. Such an approach is likely to be less appealing to high-context cultures, which the researchers hypothesized would prefer the personality-driven storytelling of an infotainment approach. Spain is an example of a high-context culture, whereas, generally, countries with western European roots represent low-context cultures (e.g., much of Europe, Scandinavia, the United States, Canada, Australia and New Zealand) [58]. Although it is beyond the scope of this research to measure culture *per se*, by conducting the researchers' experiment in both Spanish and English, the researchers can use language as a proxy for high- and low-context cultures [64][65].

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