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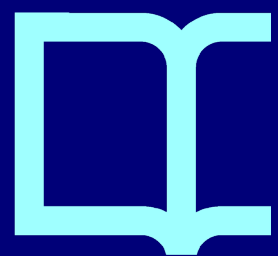
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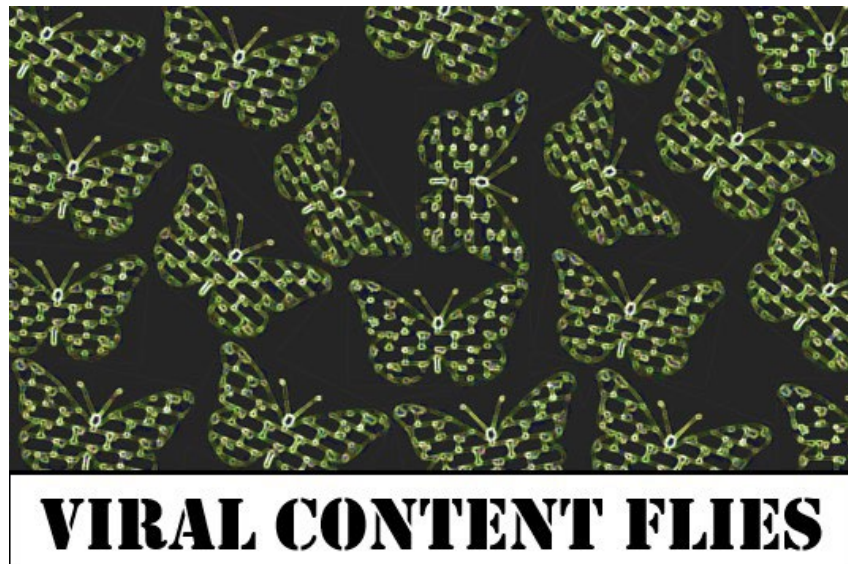
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# Can Viral Marketing Content Spread according to the Rumour Formula?

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“For the world to receive information from the world and enjoy it,  
now computers and butterflies suffice”

Italo Calvino [1]

On the social media, brands use the potential of message virality to cut their investment budgets in traditional media and increase their audience. Users share marketing messages spontaneously, helping campaigns to spread exponentially. But what type of content goes viral? In the so-called post-truth era, where fake news spreads faster than real news, it is worth analysing whether something similar happens in the field of viral marketing. In an analysis of the content from 651 viral advertising videos, ambiguity, one of the essential factors in the Allport and Postman formula for the spread of rumours, was detected in 42% of cases. According to these authors, a rumour spreads if the content is important and necessarily ambiguous. Based on their work, this study analyses key factors in a hypothetical viral advertising formula; these factors are ambiguity, but also strategic creative drivers and advertising genres (viral strains), which together form a construct that replaces the importance factor in the original formula. The results could help guide content creators and brand managers in their communication strategies.

**Keywords:** virality, advertising, viral videos, viral marketing, rumour, spread, message, creative content, fake news, ambiguity

## **Introduction**

Two decades ago, viral marketing was injected metaphorically into the professional advertising world as a definitive vaccine for perceived audience immunity to marketing messages. Getting consumers to spread adverts organically among their contacts was seen as a panacea for an advertising market that had become over-saturated with information. However, this was not a new solution; word of mouth was already spreading recommendations between peers through so-called whisper campaigns, having been documented in the 1930s [2].

Information and communication technologies facilitated an exponential leap toward viral advertising. Online devices enabled marketing conversations to flow among users over the social media, either as recommendations or by simply forwarding advertisers' messages.

It is this technology-enhanced macroscopic scaling up that fundamentally differentiates word-of-mouth advertising from viral advertising. Advertisers' messages can now reach larger audiences, more quickly, with better control and measurement, at low or virtually zero media cost and, above all, with greater reliability (as the recommended content is no longer as volatile as when spread by word of mouth and can be spread without modification).

Once digitalised, word of mouth (or word of mouse) facilitates virality at a *pandemic* dimension. However, two decades after what is considered the first viral marketing campaign – the launch of the Hotmail webmail service – professionals and academics are still asking questions about how viral advertising works: Why do some campaigns succeed online while other fail to reach a reproduction rate to ensure contagion? Where does the viral appeal of the marketing message lie? What do the most successful messages have in common? In short, is there a formula for virality?

The interest in addressing these issues is reflected in the professional and academic literature. In the first decade of research, the prevailing approach maintained that having an impact on the right opinion leaders (influencers) was more important than the viral advert content [3,4].

However, more recent research raises doubts about this approach and suggests focussing on creating viral content is more effective than activating influencers [5,6,7], although the search continues for tools to help identify the social media nodes that exert the most influence [8].

## **From word of mouth to rumour**

The academic world first showed an interest in viral marketing at the end of the twentieth century, based on the tradition of scientific study into word of mouth, which came out of the positivist school of communication research in the United States after the Second

World War [2]. This approach recognises the power of word of mouth to influence consumers and identifies three essential characteristics: 1) it is interpersonal communication, not mass communication; 2) it is communication of marketing content; and 3) it is marketing content that is not perceived as such.

There are references to word-of-mouth marketing tactics in the 1930s, led by *rumour peddlers*, but the first formal study in this field was headed by Whyte [9], who researched how the advantages of air conditioning units was spread by word of mouth in a neighbourhood in Philadelphia.

Academic literature has studied both differences and similarities between word-of-mouth advertising and rumours. Thus, Rosen [10] differentiates between word-of-mouth and rumour marketing (including buzz marketing) as viral marketing techniques. In other words, this author identifies differences between the two concepts, while Boquera [11] states that “rumour was no longer considered a harmful element for organisations and virtually became an advertising medium”. This author classifies rumour by use: planned (to promote a product, image or public figure) and instrumental (to entertain, start a conversation, attract attention or contribute to group cohesion).

Paradoxically, it is in the field of communication where rumour has been least studied. Since Stern [12] first researched message distortion, rumour has mostly been studied in psychology, from a variety of perspectives: its influence [13], its functions [14,15], its nature [16] and its categorisation [17]. More recently, due to the proliferation of fake news in the digital media, similar lines of study have started in relation to diffusion channels [18,19,20,21].

## **The rumour formula**

During the Second World War, the US Government commissioned Gordon W. Allport, a psychology professor at Harvard University, to analyse the influence of rumour on civilian morale. Together with Robert H. Knapp, he founded the so-called *Rumor Clinic*, whose aim was to produce a weekly report in a local newspaper (*Boston Sunday Herald-Traveller*) presenting rumours circulating about the war and providing convincing rebuttals.

They established the key factors for spreading rumours in the formula Rumour = Importance x Ambiguity ( $R = i \times a$ ) [13]. Thus, if the information has no importance or there is no ambiguity in the facts, there will be no rumour, because if one of the factors equals zero, then so will the final result.

Unlike psychology, which stresses each participant’s individual needs, sociology sees rumour as a collectively formed element.

According to Shibutani [22], in this collective transaction, rumours are simultaneously formed and altered. He provides a holistic explanation for the rumour formation process, integrating into his explanation both how content is deformed and how it functions. He is critical of the Allport and Postman formula, as he believes the information does not necessarily have to be important, but it must be ambiguous.

Knopf [23] simply replaces importance with a problematic situation, while Chorus [24] adds a new variable: individual critical sense. The greater the critical sense ( $c$ ), the less rumours will spread. Hence,  $R = i \times a/c$ .

Thus, the only concept questioned in the initial Allport and Postman formula is *importance*, while ambiguity is generally accepted, although more recent authors prefer the term *lack of evidence* [25].

There are diverging opinions on the factor *importance*, as different schools of thought prioritise different aspects, depending on their interests. Furthermore, it is difficult to define the importance of a message with scientific precision: where is the dividing line between an important topic and a topic of possible importance to a given public? In some cases this might be perfectly clear, but in creative advertising content it is considered a key factor (or the key factor) in triggering a viral process.

Morin [26] was one of the first sociologists to look beyond message deformation, concluding that rumours are full of cultural symbols. These contributions are particularly relevant as they make a direct connection between rumour and virus. Morin returns to the concept of rumours as disease, first mentioned by Allport and Postman in the *Rumor Clinics*, referring to them using terms such as *virus* or *germ* and describing how they can be stopped by an antidote or death. He uses the term *drivers* to describe rumour transmitters and *antibodies* to refer to rumour paralyzers, while the phases through which rumours pass are given names such as *incubation*, *spread*, *metastasis* and *traces*.

In the field of anthropology, research has looked into the extent to which rumours can cause racial conflict [27], while folklore studies examine rumour as urban legend [28] [29]. Using content analysis, Koenig [30] pioneered the study of rumours dealing exclusively with commercial products, looking beyond the three 'Cs' (catastrophe, crisis and conflict) to propose conspiracy and contamination myths as possible classification variables for rumours related to commercial products. Later on, Kapferer [31] looked into reasons why rumours spread and their particularities in different situations: business, politics, finance, the stock market and gossip press. More recently, DiFonzo and Bordia [32] continue to approach rumour from social and organisational perspectives.

From a structural analysis approach, Gritti [33] provides an important contribution on the narrative of rumour, in complete contrast to Shibutani [22] regarding deformability: independently of how elaborate the rumour is, it always preserves a constant structure that is resistant to change. According to this fixed structure, rumours have a narrative

development that features given characters, within a specific time frame (mythical time) and different narrator positions.

## **A formula for virality**

As there is little consensus regarding how the initial Allport and Postman formula might be revised, and given that its simplicity allows for its practical adaptation to the field of viral advertising, the following formula is proposed:

$$V = cc (d+s) \times a$$

Where advertising content virality (V) equals creative content (cc) produced by drivers (d) and viral strains (s), in which there needs to be a degree of ambiguity (a).

The factor *importance* in the initial formula for the spread of rumours is replaced by the sum of two variables that characterise the type of creative content used in viral video advertising.

The literature on advertising has also failed to reach a consensus on key creative aspects in advertising (especially audiovisual adverts), hence the two complementary elements discussed below are used, to provide greater depth to the analysis.

## **Creative drivers**

Authors and researchers in the field of advertising and virality have shown an interest in understanding the most strategic creative triggers, generally termed *drivers*.

Phelps et al. [34] in a study on word of mouth focussing on email marketing, suggested that messages which produce strong emotions (humour, fear, sadness or inspiration) are most likely to be shared. More recently, Berger [5] corroborated and developed upon this approach, adding another emotion to consider: awe, as a step beyond surprise.

In addition, Dobele et al. [35] stated that successful viral marketing campaigns (in general terms, without specifying those operating via video) contain a seductive message due to the drivers of imagination, humour or intrigue. Twose and Smith [36] agreed in stressing humour as a trigger for online marketing content virality, but also added the driver of involvement, which was developed in subsequent studies, such as Southgate *et al.* [37], who looked specifically at viral videos.

Gîrboveanu and Puiu [38] were categorical in stating that the effectiveness of viral marketing is based on content quality. If it is interesting, entertaining and informative (even better, if all three qualities are present at the same time), it is sure to be shared. Furthermore, the authors specifically discussed the issue of marketing perception in virality: “While it’s viral, you don’t want people to think it’s a virus” [38].

Beyond this idea of perception, Cashmore [39] considered joy as the fundamental driver for virality: people share content because it makes them happy. And at the more pragmatic end, Berger and Milkman [40] stressed utility.

In line with most of the other authors cited, Southgate *et al.* [37] also agreed on the importance of humour, but included the additional – and positive – determining factor: branding. Their work shows that the creative drivers of humour, involvement and branding are positive predictors for viral viewing. They recognised that humour and involvement are more important and recommended them as the main mechanisms to consider with online videos; however, they also stressed that the positive correlation with branding is particularly interesting. Thus they suggested a strong brand presence may help increase views, as it facilitates recall and searches for the video, should they be required.

With regard to humour, they proposed the acronym LEGS (laugh-out-loud funny, edgy, gripping, sexy) to define the nature of entertainment and concluded that this type of content correlates positively to viewing figures. Finally, with regard to involvement, they mentioned celebrity participation as another factor that tends to increase views. Notably, the authors placed greater value on the role of celebrities in the online rather than the offline context, as a source of entertainment, gossip and news.

Specific sector-based research [41,42,43,44] also considers factors such as useful information, novelty, content valence (whether it is positive or negative), emotion and exemplification (the latter should be classified as a viral strain, given that it is approached as a narrative resource in the context of story-telling).

Thus, to summarise the above contributions, creative drivers fall into seven basic categories:

1. Emotion: including content that aims to elicit feelings, both positive and negative. These may be primary or basic emotions (sadness, happiness, surprise, disgust, fear, rage), secondary or background emotions (discouragement, enthusiasm) and social emotions (embarrassment, gratitude, admiration, pride, jealousy, kindness, obfuscation, irritation).
2. Sensation: this refers to messages based on sensory stimuli, whether visual (chromatic or achromatic), auditory, olfactory/gustatory, tactile, kinetic or kinaesthetic.
3. Involvement: attracting attention or awakening the public's altruism and commitment.
4. Amusement: adverts based on humour, jokes and even comic violence [45].
5. Information: content limited to providing information on the product, service or brand, to serve as a reminder of its existence or possible uses.
6. Utility: useful content for users and added value for products/services as an excuse or trigger for communication.

7. Rumour: evoking ambiguous messages, open or vague narratives or striking content, with the aim of starting up viral communication or a conversation with the public.

### **Viral strains**

Numerous authors have identified and classified creative resources, genres or sub-genres in advertising, while failing to produce a consensus taxonomy [46,47,48,49,50,51,52,53,54,55].

To clarify the minimum common denominators in the proposals made by these ten authors, the following list of creative resources is proposed and transposed to the field of virality, termed *viral strains*:

1. Advertising strain: implying the presence – implicit or explicit – of a seller, including influencers, endorsements, presenters, satisfied users and celebrities. This is most easily recognised as an advert, due to its formal and persuasive features.
2. Journalistic strain: this refers to content that is formally the opposite of the above, as it avoids the appearance and language of conventional advertising. It uses supposedly objective and informative genres and formats from journalism, such as the report.
3. Cinematic strain: this includes content inspired by any of the cinematic sub-genres and so-called slices of life and aspirational recreations.
4. Televisual strain: these borrow formats and styles from television, especially those associated with entertainment (reality shows, quiz shows or hidden cameras).
5. Science-like strain: under the guise of scientific discourse, these recreate sociological or technological pseudo-experiments.
6. Cartoon strain: these use comics and comic strips, cartoons and digital creations.
7. Fantasy strain: science fiction, magic, special effects and even surrealism are used to create a dreamlike or fantasy discourse.
8. Performance strain: this refers to dramatized content that might occur in the street (guerrilla actions), spontaneously or otherwise, generated by brands to impress the public.
9. Rhetorical or conceptual strain: this covers items built using a rhetorical figure or conceptual resource from advertising.
10. Comparative strain: this aims to establish the superiority of the advertised product or service over the competition or compare two specific associated situations.
11. Demonstrative strain: this presents the product or service in use, usually with the classic problem-solution design.
12. Musical strain: a tune or song forms the basis for communicating the message.



13. Intrigue strain: this includes teaser adverts, with or without their subsequent resolution. This is initially the closest strain to the rumour driver.
14. Interactive strain: this refers to content that requires user action to give the message meaning, or demands explicit participation in other channels or platforms.
15. Erotic strain: this uses sensuality and eroticism as its attraction.
16. Aesthetic strain: the clearest exponent of the artistic genre, in both static and moving images. The message is recreated in artistic form, even if this is *kitsch*.
17. Imitative strain: this includes me-too advertising, messages that try to emulate the category leader, and the creative path of swapping roles among the characters in the advert.

To summarise, while viral strains refer to the type of creative content used, drivers refer to the motivation or strategic trigger used by advertisers to produce this content. Both elements of the formula are a construct related to the next factor.

### **Ambiguity**

In 1999, the first advert whose viral strategy was based on ambiguity was launched. This was the teaser trailer for the psychological horror film *The Blair Witch Project* (written and directed by Daniel Myrick and Eduardo Sánchez), which obtained 75 million views in the campaign's first week. The Campfire advertising agency designed a pre-release promotion which suggested the story was real [56]. The story in question described the mysterious disappearance of three film students while recording a documentary in the woods in the US state of Maryland. The audiovisual material had supposedly been found a year later, from which the events were reconstructed. Given that the teaser was not designed as a conventional trailer, the ambiguity in the work hinged on doubts regarding the content itself and uncertainty as to the reasons for its diffusion.

Some years later, in 2004, the agency Crispin Porter + Bogusky designed an *advergame* (a game with advertising purposes) for Burger King, as the centre of a campaign to publicise the fast-food chain's new chicken burger. The game was hosted on the website [www.subservientchicken.com](http://www.subservientchicken.com) and received over 15 million visits in the first week. Its viral appeal lay in the illusion of real-time interactivity perceived by users, who could enter a command (dance, jump, sleep, etc.) and make a character in a chicken costume perform the actions in front of a webcam in their lounge. In its design, the game covered a wide range of orders, thus creating reasonable doubt as to the simultaneity of the character and users' commands. Ambiguity was also produced by the cryptic presence of the brand on the website (a discreet link under the title 'BK Tendercrisp'). This case highlights the early influence of word of mouth on viral marketing, as the aim was to avoid videos being perceived as adverts.

In these and the previous examples, three levels of ambiguity can be detected in viral advertising videos:

1. Ambiguity of authorship: doubts are raised as to who is responsible for the work, either because the video is not signed by an advertiser or because the marketing intent is replaced by apparently user-generated content. Occasionally the brand might appear camouflaged in certain shots, thus generating conversations among users based on speculation and attempts to clear up doubts. This is the case with Ray-Ban's "Catch Glasses" viral advertising video, in which two people play with their sunglasses, but with no mention of the brand or close-up of the product. Only in one sequence could the brand slogan ("Never hide") be read, discreetly and unconventionally integrated into the scene.



**Figure 1.** Still from the Ray-Ban viral advertising video "Catch Glasses", in which the brand slogan appears written on the car window.

2. Ambiguity of content: uncertainty is generated regarding the truthfulness of the narrative. This usually involves blurring the limits between the advertising fiction and reality (with regard to the characters and/or the action involved). An example illustrating this characteristic is the video "The Epic Split Feat" by Volvo Trucks in which the actor Jean Claude Van Damme carries out a feat of acrobatics between two moving lorries.



**Figure 2.** Still from the Volvo Trucks viral advertising video "The Epic Split Feat".

3. Double ambiguity (authorship and content): this is the case of the viral video "Guys backflip into jeans", by the Levi's clothing brand, where the brand name never appears in close-up (it could be deduced that not all the jeans appearing in the action are necessarily Levi's, hence it is not an advertising message) and that the acrobatics performed to get into the jeans are plausible though not necessarily real.



**Figure 3.** Still of the Levi's viral advertising video "Guys backflip into jeans".

## Testing the formula

Having specified the elements in the formula, it can now be tested with data from a set of highly representative, homogeneous and relevant viral advertising videos that are as neutral as possible (their selection is not based on criteria established by a jury, professional or researcher). The sample was compiled over 42 months by activating a Google alert system with the key words "viral marketing" (in English and Spanish), which provided a total of 12,610 hits on the topic.

From this content, references to videos posted on YouTube (strategically designed to go viral) were extracted and the definitive study corpus was reduced to 651 viral advertising videos, thereby ensuring the homogeneity and relevance of the sample. Bearing in mind that viral advertising videos can be considered an infinite population, the sample error was  $\pm 3.8\%$  ( $p=q=.05$  at a 95% confidence interval) to ensure representivity.

Data analysis using contingency tables permitted the different bivariate qualities of the sample to be described quantitatively (as frequencies and percentages) and the independence of the variable pairs to be tested, using the  $\chi^2$  statistic.

The independence test proposes, as a null hypothesis, that the classification criteria are independent, i.e. a video belonging to one class of classification variable (such as ambiguity) does not affect its likelihood of belonging to any of the other variable types (such as drivers or strains).

The quantitative analysis was based on the frequencies at which certain indicators appear (*prevalence*, in the viral metaphorical language), but also considered the potential significance of isolated presence and even absence of certain elements. The results for each element in the formula are given below.

## Results for the drivers

The predominant creative driver in the sample was humour, matching results obtained by authors in previous research [35,36,37,38,57].

The second prevalent driver is rumour, which arises from ambiguous messages and open, vague or astonishing content. It should be remembered that only two teams of authors have discussed this concept in the literature reviewed. Dobele et al. [35,57] considered intrigue as one of the main triggers for viral creative content (together with emotion, entertainment and imagination), while Southgate et al. [37] referred to certain forms of gossip news to justify brands' use of celebrities.

The third driver detected, in order of prevalence, is sensation, which aims to create interest through sensory stimuli, and the fourth is emotion. Negative emotions were detected in 16 out of a total 92 videos identified as using this driver, thereby calling into question suggestions that only positivity will make advertising go viral [58].

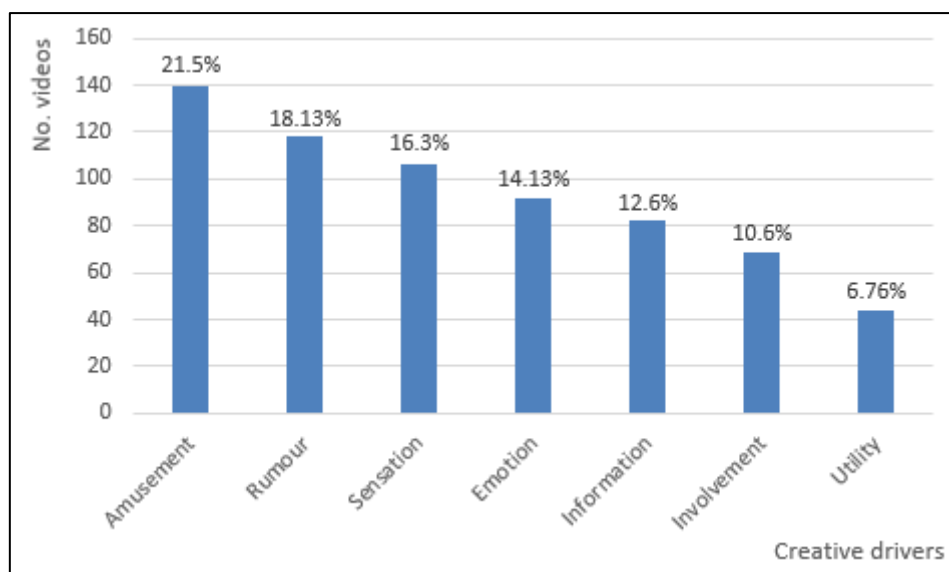
Reporting on the product, brand or service was the fifth-placed driver for launching a viral video. Gîrboveanu and Puiu [38] are the standard authors with regard to this driver, which has historically been one of the primary communication goals (together with branding and call-to-action).

The penultimate driver is involvement. Twose and Smith [36] and Southgate et al. [37] detected this creative trigger in their research, recently and eloquently expressed in the phrase "When we care, we share" [6]. As is to be expected, 68% of videos in this category are by advertisers in the service sector and institutions, as most are promoted by NGOs or non-profit foundations seeking to involve society in their cause.

In last place in terms of prevalence is the utility driver, despite Berger and Milkman [40] identifying it as a determining factor for sharing online content.

The simplified driver frequency table, extracted from the data analysis, shows the percentages in descending order.

**Table 1.** Prevalence of creative drivers in the videos analysed



## Results for viral strains

The most eloquent conclusion from the analysis of viral strains is the confirmation that viral advertising videos are, above all, adverts. In other words, they are identifiable as marketing artifacts.

This statement is based on the fact that the most commonly used strains are the ones most closely associated with persuasive marketing language: rhetoric or conceptual and classic advertising strains. In other words, viral advertising videos mainly adopt resources commonly used in televisions ads: they use rhetorical figures as the conceptual pillar for communication (10.75% of cases) or turn to different the types of influencers and advertising resources that make videos recognisable as adverts (10.29% of the cases analysed). In total, over 21% of the videos in the sample match the genre style categories most closely related to advertising.

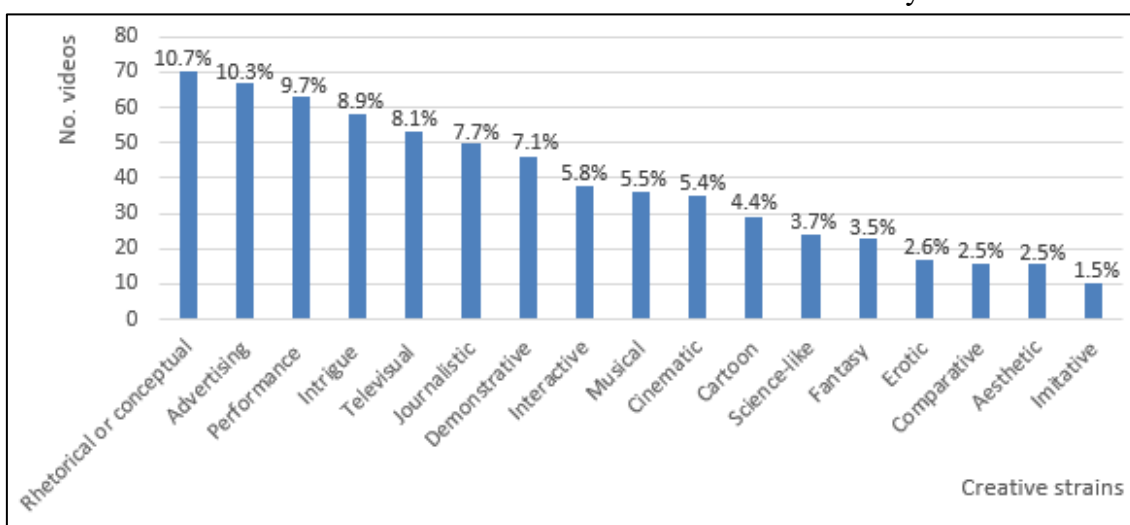
The third most prominent strain is performance. Some advertisers (such as Coca-Cola, Heineken, Levi's, Peugeot, Samsung, T-Mobile and TNT) repeatedly use this, although advertisers in the technology sector are the most frequent users of this strain.

The fourth strain is intrigue, which includes teaser messages and ones that try to persuade viewers to take further action to solve the mystery. As might be expected, this strain is most frequently related to the rumour driver (58.62% of matches).

The fifth most prevalent viral strain is the televisual strain, which borrows formats and styles from television. Specifically, use of the hidden camera format is particularly common (69.81% of the total for the televisual strain).

Data for the strains are shown in the table below.

**Table 2.** Prevalence of creative strains in the videos analysed



## Results for ambiguity

Ambiguity was analysed using a dichotomous scale, considering content to be ambiguous if, as the definition of the adjective states, it is “capable of two or more possible interpretations, and is usually intended to be so for the purpose of mystifying or confusing” [59].

Among the 651 videos analysed, a degree of ambiguity was detected in 276 (42.4%) of cases. Therefore, it may be stated that ambiguity is not strictly a necessary condition for advertising virality. Consequently, the proposed hypothetical formula should be revised by changing the factors to addends:

$$V = cc (d+s) + a$$

According to this new formulation, viral advertising content requires creative content (preferably based on specific drivers and viral strains) and a degree of ambiguity. Switching ambiguity from factor to addend shows that it is not an essential condition, otherwise a value of zero for ambiguity would mean there was no virality.

The statistical analysis of the viral advertising videos in the sample shows content to be the prevalent type of ambiguity. In total, 140 such cases were identified, representing 50.73% of the total. In second place are videos that use double ambiguity, both content and authorship. There are 71 cases in this category, representing 25.72% of the sample. Finally, close behind are videos that are ambiguous only for authorship, totalling 65, or 23.55% of the total. This latter figure contradicts the opinion of certain authors, who consider there to be a greater likelihood of sharing viral videos that do not identify the advertiser and which are therefore not associated with the aim of strengthening the brand [60]. Although there are numerous examples where brand does not, apparently, feature in the commercial content, it is worth noting that some authors stress that branding is one of the primary goals of viral advertising [37,61.62].

Data analysis was used to produce contingency tables for the advertisers’ sectors and content ambiguity. Significant correlations were found for only two sectors: 34.8% of videos in the consumer goods sector and 48.6% in technology, electronics and telecommunications are ambiguous.

## Relevant correlations

Given that a single viral message may be based on more than one creative strain, the analysis of the videos only identified the predominant one. To compensate for how this might limit the information, the data were crossed with the detection of the prominent creative drivers. By doing this, a number of significant correlations can be detected, which may be of interest to the academic and professional creative and viral advertising

community. The basic matrix offers 119 possible driver and creative strain combinations (Table 3).

Having analysed the significance of the correlations, the conclusion to be drawn from the data match is that the most relevant pairing in the set of variables analysed is: emotion driver + rhetorical or conceptual strain.

**Table 3.** Summary of the cross between creative strains and drivers

STRAINS/CREATIVE DRIVERS		Emotion	Sensation	Involvement	Amusement	Information	Utility	Rumour	TOTAL
Advertising	Count	7	7	3	25	9	4	11	67
	% in drivers	7.7%	6.6%	4.3%	17.9%	11.1%	9.1%	9.4%	10.1%
Journalistic	Count	6	3	7	6	6	12	10	50
	% in drivers	6.6%	2.8%	10.0%	4.3%	7.3%	27.3%	8.5%	7.7%
Cinematic	Count	8	6	1	5	8	2	5	35
	% in drivers	8.8%	5.7%	1.4%	3.6%	9.8%	4.5%	4.3%	5.4%
Televisual	Count	12	4	8	18	4	2	5	53
	% in drivers	13.2%	3.8%	11.4%	12.9%	4.9%	4.5%	4.3%	8.1%
Science-like	Count	2	6	1	3	4	0	8	24
	% in drivers	2.2%	5.7%	1.4%	2.1%	4.9%	0.0%	6.8%	3.7%
Cartoon	Count	0	8	3	4	11	2	1	29
	% in drivers	0.0%	7.5%	4.3%	2.9%	13.4%	4.5%	0.9%	4.5%
Fantasy	Count	0	4	0	4	5	0	10	23
	% in drivers	0.0%	3.8%	0.0%	2.9%	6.1%	0.0%	8.5%	3.5%
Performance	Count	17	14	3	12	3	1	13	63
	% in drivers	18.7%	13.2%	4.3%	8.6%	3.7%	2.3%	11.1%	9.7%
Rhetorical/ Conceptual	Count	18	6	14	21	9	1	2	70
	% in drivers	19.8%	5.7%	20.0%	15.5%	11.1%	2.3%	1.7%	10.9%
Comparative	Count	5	1	2	1	5	0	2	16
	% in drivers	5.5%	0.9%	2.9%	0.7%	6.1%	0.0%	1.7%	2.5%
Demonstrative	Count	8	6	4	9	9	7	3	46
	% in drivers	8.8%	5.7%	5.7%	6.4%	11.1%	15.9%	2.6%	7.1%
Musical	Count	4	9	1	7	3	2	10	36
	% in drivers	4.4%	8.5%	1.4%	5.0%	3.7%	4.5%	8.5%	5.5%
Intrigue	Count	2	6	3	8	2	3	33	58
	% in drivers	2.2%	5.7%	4.3%	5.7%	2.4%	6.8%	28.2%	8.9%
Interactive	Count	1	5	14	9	1	7	1	38
	% in drivers	1.1%	4.7%	20.0%	6.4%	1.2%	15.9%	0.9%	5.8%
Erotic	Count	0	11	1	4	0	0	1	17
	% in drivers	0.0%	10.4%	1.4%	2.9%	0.0%	0.0%	0.9%	2.6%
Aesthetic	Count	1	9	2	0	3	0	1	16
	% in drivers	1.1%	8.5%	2.9%	0.0%	3.7%	0.0%	0.9%	2.5%
Imitative	Count	0	1	3	4	0	1	1	10
	% in drivers	0.0%	0.9%	4.3%	2.9%	0.0%	2.3%	0.9%	1.5%
TOTAL	Count	92	106	69	140	82	44	118	651
	% in drivers	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

The ambiguity variable is also analysed in relation to specific involvement in creative drivers and strains. And as expected, the strain most frequently related to the rumour driver is intrigue (with 58.62% of matches).

With regard to drivers, ambiguity is significant in all of them, except humour. In other words, any trigger (except humour) implies that the content may contain a significant degree of ambiguity. Although this is the dominant driver (21.5% of the total) only 8.14% is ambiguous, hence it is not significant (.129 according to the contingency table).

By contrast, the second most prevalent driver shows very high significance, at the 99% confidence interval. In 94.9% of cases, rumour-based viral videos are ambiguous, compared to 30.8% of those considered ambiguous but not associated with this driver (Table 4). As this is a logical and predictable result, it is interesting to analyse cases that do not match this pattern. For instance, Gucci launched a video teaser directed by the filmmaker Frank Miller. The video aroused expectations around its premier during the MTV Music Awards and, above all, created a surprising connection between the brand and Miller's aesthetics, with the aim of generating conversations. Thus Gucci attempted to create conversation about the brand through artistic provocation, but with added uncertainty.

**Table 4.** Contingency and chi-square test for ambiguity and the rumour driver

Contingency table			Ambiguity		Total
			No	Yes	
Rumour driver	No	Count	369	164	533
		% in the rumour driver	69.2%	30.8%	100.0%
	Yes	Count	6	112	118
		% in the rumour driver	5.1%	94.9%	100.0%
Total	Count	375	276	651	
	% in the rumour driver	57.6%	42.4%	100.0%	

Chi-square test	Value	Asymptotic sig. (2-sided)	Exact sig. (2-sided)	Exact sig. (1-sided)
Pearson's chi-square	162.776	.000		
Continuity correction	160.160	.000		
Likelihood ratio	181.947	.000		
Fisher's exact test			.000	.000
Linear-by-linear association	162.526	.000		
N of valid cases	651			

The involvement driver also correlates to ambiguity, with significance at a 99% confidence interval. However, it is worth noting that this correlation applies to almost half the rumour-based videos. It is closely followed by the emotions driver, but in this case significance means there is a lower tendency to ambiguity in 26.4% of cases than with any other driver (45%).

A similar correlation occurs with the sensation driver, which involves less ambiguity (34.9%) than in cases based on other drivers (43.9%). And, finally, the information and utility drivers also show significance with ambiguity at the 95% confidence interval.

With regard to viral strains, significant correlations with ambiguity are found in only 5 cases (out of 17 strains). From higher to lower significance, these are: musical ( $p=.000$ ), cartoon ( $p=.003$ ), demonstrative ( $p=.006$ ), aesthetic ( $p=.042$ ) and intrigue ( $p=.058$ ).



Atomisation across such a broad set of categories might explain the low level summarised in the contingency tables.

Among the strains showing no significant correlation with ambiguity are the imitative, science-like, rhetorical or conceptual and advertising strains. Consequently, no firm conclusions can be drawn from these results regarding ambiguity as a significant factor in relation to the prevalent strains (rhetorical and advertising), although it is a significant factor for the dominant driver (emotion).

Finally, the analysis was fine-tuned by looking at the time factor analysed to see if it had any impact on the aforementioned correlations. To do this, data were crossed with two different groups: firstly, the videos longer than the sample average (2 minutes and 31 seconds); and secondly, videos shorter than average.

In general terms, length of video does not alter the significance correlation compared to the correlation for the whole sample and when it does change, this is generally for longer-than-average videos.

Referring specifically to drivers, longer videos appear to have an influence in the cases of emotion, sensation and involvement. However, in the cases of humour, information, utility and rumour, the length of video does not alter the significance of ambiguity with regard to the sample total.

In the case of viral strains, there are alterations in the following cases: cinematic, televisual, cartoon, performance, intrigue and aesthetic. Again, this is always for videos longer than 2 minutes and 31 seconds.

## **Conclusions**

Analysis of 651 viral advertising videos shows that content based on emotions (positive or negative), explained using habitual advertising rhetoric (or conceptual) resources, shows greater significance and prevalence.

Ambiguity is present in almost half the sample analysed and, due to the significant correlations with strains and drivers, it may be concluded that this is a condition worth considering, though not essential, for advertising virality.

Humour – in all its variants, including comic violence – is the predominant trigger, but is not significant in relation to ambiguous content. However, rumour is close behind in second place, hence the role of ambiguity in viral content should not be underestimated.

Unlike previous studies [38,63], where the study sample was considerably smaller than the one used here, this study finds that advertising virality is not indicated exclusively for advertisers in specific sectors. On the contrary, it is fairly widely distributed, with companies from all kinds of sectors placing strategic importance on the possibilities of

viral advertising. Nevertheless, except for Google, the large offline advertising brands again rank highly in the case of viral marketing.

Nor can it be stated that creativity is reserved to advertisers in specific business sectors. This is one of the collateral biases this statistical study of videos disproves, along with the idea that adverts need to be short to ensure they go viral (as the average length of the videos analysed is 2 minutes and 31 seconds).

Besides the evidence from the discourse analysis, certain other relevant aspects have been detected that were not initially anticipated, such as the presence of viral strains not initially considered, e.g. digital sub-genres. In the performance strain, a considerable content group based on overcoming challenges was identified. And given the popularity of viral challenges in recent years, it may be worth tracking viral challenges associated with brands.

Interactivity, above and beyond forwarding or spreading advertising content, was detected as a viral strain in 5.84% of the sample. This could be interpreted in two ways: either there is a long way to go before the opportunities offered by ICT are fully used, or advertisers still doubt the potential of the Internet as a participative medium.

Thus, we may say that ambiguity is a favourable condition for virality, especially when combined with the rumour and emotion drivers, but also with the other triggers analysed (except for humour). Ambiguity covers a wide terrain for an audience that considers certain marketing messages irresistible, although they occasionally fail to identify them as such. Metaphorically, referring to the quote at the start of this chapter, we could say that enjoying butterflies does not mean catching them.

- 651 viral videos analysed.
- Ambiguity was detected in 42.4% of cases.
- Humour was the predominant trigger but the most relevant pairing in the set of variables was emotion driver + rhetorical or conceptual strain (advertising genre).
- Ambiguity is an additional value in a hypothetical formula for advertising virality, although it is not essential to contagion.
- So, the initial formula was revised by changing the factors to addends:  
$$\text{Virality} = \text{creative content (drivers+strains)} + \text{ambiguity}$$

## **The future for the field of study**

Boase and Wellman [64] carried out a comparative study of biological, computer and marketing viruses to understand how network structures affect their spread: how many people might be affected and at what speed. For all three viruses, frequent contact increased the probability of contagion, but only marketing viruses were welcomed, as they provide information or an opportunity to feel socially accepted and trendy.

This type of multidisciplinary study will make even more sense in the near future because, with the rise of fake news and hate speech predominating in certain social networks, we need to understand the mutation mechanisms that enable the viruses to survive. In the same way as fact-checking tools are now used, people might turn to ad-checking to neutralise ambiguity in advertising authorship and to shine a light on the credibility of influencers. With regard to brands, the inclusion of watermarking, as part of the advertising virus genome, could provide a solution to the challenge of the measurement and effectiveness of communication.

## **The author**



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## References

1. Calvino I (2004) *El castillo de los destinos cruzados*. Madrid: Siruela.
2. Kirby J, Marsden P (2006) *Connected Marketing: the viral, buzz and word of mouth revolution*. Oxford: Butterworth-Heinemann.
3. Adamic L, Adar E (2005) How to search a social network. *Social Networks* 27:187-203.
4. Kozinets R-V (2006) Click to connect: netnography and tribal advertising. *Journal of Advertising Research* 46 (3): 279-288.
5. Bakshy E, Hofman J-M, Mason W-A, Watts DJ (2011) Everyone's an influencer: quantifying influence on Twitter. In: *Proceedings of the 4<sup>th</sup> International Conference on Web Search and Data Mining*, pp. 65-74.
6. Berger J (2013) *Contagious: why things catch on*. New York: Simon & Schuster.
7. Watts D-J, Peretti J, Frumin M (2007) Viral marketing for the real world. *Harvard Business Review* 85 (5):22-30.
8. Sheikahmadi A, Nematbakhsh M-A (2016) Identification of multi-spreader users in social networks for viral marketing. *Journal of Information Science* 43 (3):412-423.
9. Whyte W-H. Jr (1954) The web of word of mouth. *Fortune*, 50:140-43.
10. Rosen E (2000) *The anatomy of buzz*. New York: Currency Doubleday.
11. Boquera E (2003) *La informació ambígua: una introducció a les funcions i usos del rumor*. Universitat Ramon Llull, Barcelona.
12. Stern L-W (1902) Zur Psychologie der Aussage. Experimentelle Untersuchungen über Erinnerungstreue. *Zeitschrift für die gesamte Strafrechtswissenschaft* 22 (2/3).
13. Allport G-W, Postman L (1973) *Psicología del rumor*. Buenos Aires: Psique.
14. Back K, Festinger L, Hymovitch B, Kelley H, Schachter S, Thibaut J (1950) The methodology of studying rumor transmission *Human Relations* 3 (3):307-312.
15. Festinger L (1950) Informal social communication. *Psychological Review* 57 (5): 271-282.
16. Kirkpatrick C (1932) A tentative study in experimental social psychology. *American Journal of Sociology* 38 (2):194-206.
17. Knapp R-H (1944) A psychology of rumor. *Public Opinion Quarterly* 8 (1):22-37.
18. Rochlin N (2017) Fake news: Belief in post-truth. *Library hi tech* 35 (3):386-392.
19. Rubin V-L (2017) Deception detection and rumor debunking for social media. In: *The SAGE Handbook of Social Media Research Methods*, pp 342-364.
20. Burkhardt J-M (2017) Combatting fake news in the digital age. *Library technology reports* 53:8.
21. Vosoughi S, Roy D, Aral S (2018) The spread of true and false news online. *Science*, 359 (6380):1146-1151.
22. Shibutani T (1966) *Improvised news: a sociological study of rumor*. Indianapolis: Bobbs Merrill.
23. Knopf T-A (1975) *Rumors, race and riots*. New Brunswick: Transaction Books.

24. Chorus A (1953) The basic law of rumor. *Journal of abnormal and social psychology* 48 (2):313-314.
25. DiFonzo N (2019) A christian psychology of rumor. *Journal of Psychology and Christianity* 38 (1):3-21.
26. Morin E (1973) *La rumeur d'Orléans*. Paris: Éditions du Seuil.
27. Turner P-A (1993) I heard it through the grapevine. *Rumor in African-American culture*. Berkeley: University of California Press.
28. Renard J-B (1999) *Rumeurs et legends urbaines*. Paris: Presses Universitaires de France.
29. Dorson R-M (1999) Modern folklore. In: *American Folklore*. Chicago: University of Chicago Press.
30. Koenig F (1985) *Rumor in the marketplace. The social psychology of commercial hearsay*. Dover: Auburn House Publishing Company.
31. Kapferer J-N (1989) *Rumores. El medio de difusión más antiguo del mundo*. Barcelona: Plaza&Janés.
32. DiFonzo N, Bordia P (2007) *Rumor Psychology: Social and Organizational Approaches*. Washington DC: American Psychological Association.
33. Gritti J (1978) *Elle court, elle court, la rumeur*. Ottawa: Stanké.
34. Phelps J-E, Lewis R, Mobilio L, Perry D, Raman N (2004) Viral marketing or electronic word-of-mouth advertising: examining consumer responses and motivations to pass along email. *Journal of Advertising Research* 44 (4):333-348.
35. Dobele A, Lindgreen A, Beverland M, Vanhamme J, Van Wijk R (2007) Why pass on viral messages? Because they connect emotionally. *Business Horizons* 50:291-300.
36. Twose D, Smith D (2007) How effectively can ad research predict sales? *Admap* 487: 42-44.
37. Southgate D, Westoby N, Page G (2010) Creative determinants of viral video viewing. *International Journal of Advertising* 29 (3):349-368.
38. Gîrboveanu S-R, Puiu S (2008) Viral Marketing. *Annals of the University of Petroșani, Economics* 8 (1):223-230.
39. Cashmore P (2009) YouTube: why do we watch? *CNN.com* <<http://edition.cnn.com/2009/TECH/12/17/cashmore.you.tube/index.html>>
40. Berger J, Milkman K-L (2012) What makes online content viral? *Journal of Marketing Research* 49:192-205.
41. Kim H-S (2015) Attracting views and going viral: How message features and news-sharing channels affect health news diffusion. *Journal of Communication* 65:512-534.
42. Cappella J-N, Kim H-S, Albarracín D (2015) Selection and transmission processes for information in the emerging media environment: Psychological motives and message characteristics. *Media Psychology* 18 (3):396-424.
43. Kim H-S, Lee S, Cappella J-N, Vera L, Emery S (2013) Content characteristics driving the diffusion of antismoking messages: Implications for cancer prevention in the emerging public communication environment. *Journal of the National Cancer Institute Monographs* 2013:182-187.

44. O'Keefe D-J (2003) Message properties, mediating states, and manipulation checks: Claims, evidence, and data analysis in experimental persuasive message effects research. *Communication Theory* 13:251-274.
45. Brown M, Bhadury R, Pope N (2010) The impact of comedic violence on viral advertising effectiveness. *Journal of Advertising* 39 (1):49.
46. White H (1981) *How to produce an effective TV commercial*. Chicago: Crain Books.
47. Ogilvy D (1983) *Ogilvy & la publicidad*. Barcelona: Folio.
48. Baldwin H (1989) *How to create effective TV commercials*. Chicago: NTC Business Books.
49. Ortega E (1992) *La publicidad en televisión*. Madrid: Delphi-EAP-Mundiprensa.
50. Bassat L (2001) *El libro rojo de la publicidad*. Barcelona: Plaza & Janés.
51. Rey J (1996) *Palabras para vender, palabras para soñar: introducción a la redacción publicitaria*. Barcelona: Paidós.
52. León J-L (1996) *Los efectos de la publicidad*. Barcelona: Ariel Comunicación.
53. Moreno I (2003) *Narrativa audiovisual publicitaria*. Barcelona: Paidós.
54. Altarriba M (2005) *Què dir, a qui i per què. Retòrica i redacció publicitària*. Barcelona: Trípodos.
55. Martínez-Sáez J (2009) *Hacia una taxonomía del audiovisual publicitario*. BOCC Biblioteca on-line de ciencias da comunicação, Universidade de Beira Interior <[bocc.ubi.pt/pag/bocc-martinez-taxionomia.pdf](http://bocc.ubi.pt/pag/bocc-martinez-taxionomia.pdf)>
56. Del Pino C (2007) Nueva era en la comunicación comercial audiovisual: el marketing viral. *Pensar la publicidad* 1 (2):63-76.
57. Dobeles A, Toleman D, Beverland M (2005) Controlled infection! Spreading the brand message through viral marketing. *Business Horizons* 48 (2):143-149.
58. Eckler P, Bolls P (2011) Spreading the virus: emotional tone of viral advertising and its effect on forwarding intentions and attitudes. *Journal of Interactive Advertising* 11 (2):1-11.
59. Rhv (1996) *Webster's Encyclopaedic Unabridged Dictionary*. Random House Value Publications.
60. Sanagustín E (2009) *Del 1.0 al 2.0: claves para entender el nuevo marketing*. <<https://app.box.com/shared/tgoujqjm72>>
61. Golan G-J, Zaidner L (2008) Creative strategies in viral advertising: an application of Taylor's six-segment message strategy wheel. *Journal of Computer-Mediated Communication* 13 (4):959-972.
62. Porter L, Golan G-J (2006) From Subservient Chickens to Brawny Men: a comparison of viral advertising to television advertising. *Journal of Interactive Advertising*, 6 (2):30-38.
63. Woerndl M, Papagiannidis S, Bourlakis M, Li F (2008) Internet-induced marketing techniques: critical factors in viral marketing campaigns. *International Journal of Business Science and Applied Management*, 3 (1):33-45.
64. Boase J, Wellman B (2001) A plague of viruses: biological, computer and marketing. *Current Sociology* 49 (6):39-55.

## **Tables**

1. Prevalence of creative drivers in the videos analysed
2. Prevalence of creative strains in the videos analysed
3. Summary of the cross between creative strains and drivers
4. Contingency and chi-square test for ambiguity and the rumour driver

## **Figures**

1. Still from the Ray-Ban viral advertising video “Catch Glasses”, in which the brand slogan appears written on the car window.
2. Still from the Volvo Trucks viral advertising video “The Epic Split Feat”.
3. Still of the Levi’s viral advertising video “Guys backflip into jeans”.