

*decode Science Update 1\_2014*

# The Science of Sharing

How and why ads go viral

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# Welcome to the decode Science Update

We live in an age of digital and, above all, social media. Rare is the briefing that does not demand that a commercial must also function online. The benefits of so-called "viral" ads are obvious: coverage can be maximised cost-effectively via recommendation by one user to another.

But how can this be achieved? **Do we always have to show babies and cats on roller skates? How important are such creative mechanisms for success?** It doesn't appear to be easy, as the majority of ads that make the transition to online develop no lasting viral effect. The Microsoft researcher Duncan Watts, who has studied the topic extensively, writes: "*Viral marketing, however, is much easier to tell stories about than to implement. For every high profile example of a viral product, there are many more unsuccessful attempts that one never hears about.*"

The dynamic that is often taken for granted – a few people see the spot and this leads via recommendations to a sort of snowball effect – is not reflected in the corresponding studies. It is also clear that, for successful digital diffusion, it is not enough simply to put the classic 30-second offline ad online. As is well-known, different rules apply online to those for the classic TV spot, especially with regard to composition, creative mechanisms, branding and visibility or range.

Research now has new insights into **what exactly constitutes a successful viral spot and what happens in our heads if we share content online.** In this Science Update we take a look at new insights to see what dimensions make up a successful online spot – and what can be learned from them for practical marketing.

We hope you enjoy reading this Update.  
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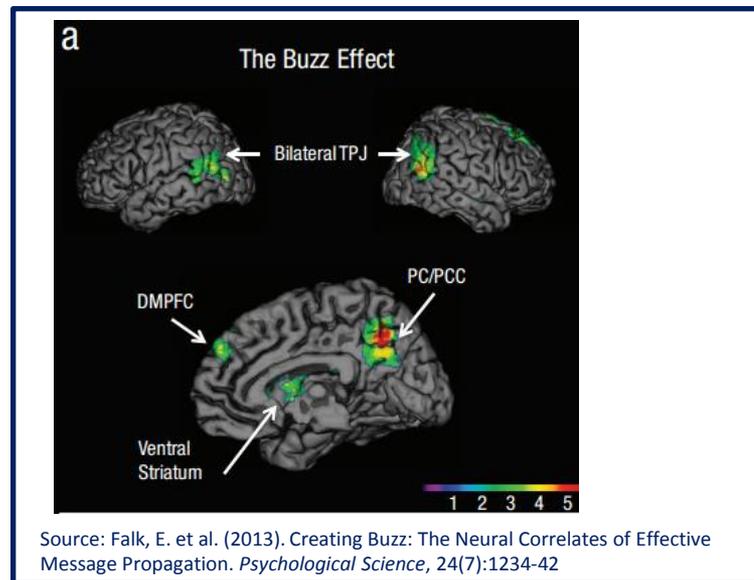
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# The "Buzz" effect in your head: What happens in the brain when we share content?

Why is an ad shared anyway – and what happens in the brain during the process? Which ideas have viral potential and can this be predicted? These questions were recently studied by scientists from the well-known neuro-scientist Matthew Lieberman's team at the University of California in Los Angeles (UCLA). Up to now it was completely unclear if there is a neural correlate for whether we share ideas or not. In the study, respondents in a brain scanner (fMRT) were presented with 24 ideas for new TV programmes. In the process, they were asked to imagine that they worked for a TV station and had to decide which of these ideas they would recommend to the producer. Another group of test persons, the "producers", then looked at these recommendations to decide whether or not they would recommend the show for production.

At the same time, what the researchers referred to as the **"Buzz" effect** became apparent: **in the ideas that were recommended by both groups, two neuronal networks were activated: (1) the so-called "mentalisng" network, with which we empathize with other people and (2) the reward system (in particular the ventral striatum).**



According to this, if we see an ad online, it is accompanied by two assessments in the brain:

1. **"What's in it for me?"** the reward value, based on the idea of the ad on the one hand, and sharing, in itself, on the other. 'Featuring' oneself vis-à-vis others as a bringer of new, exciting and involving content is a reward for many. So it is not just a matter of altruism. According to the Harvard researcher, Taxeira, it is predominantly such 'egotistical' motivations, based on rewards (e.g. social status), that underlie the sharing of online ads (see the following slides also).
2. **Intuitive judgement of whether it would be exciting for others ("mentalisng")**. This mentalising network is particularly active in this study because the participants were explicitly asked to look at the ideas with the purpose of deciding whether they would recommend them to the producers. However, it's plausible to assume that this mentalising network is also activated whilst viewing and sharing online ads.

**Summary: whether an ad is shared depends on its "reward value". Let's take a closer look at this.**

# What makes online ads go viral: arousal and valence

In one of the first systematic studies of the question of which type of content is shared online, the researchers Berger and Milkman (2012) analysed 7,000 articles on the New York Times website. This showed that the more activating (in terms of „arousal“) an article is, the more likely it is to be recommended or shared. The emotional affect therefore appears to be decisive. This finding was confirmed in the largest and most scientifically robust study of the "science of sharing" so far – undertaken by the Ehrenberg-Bass Institute in Australia. It examined a total of 800 online videos with regard to (a) their emotional affect and (b) the onward transfer rate (i.e. real behaviour).

The following table shows the result, separated on the one hand for "high" or "low" arousal (how activating the video is) and "positive" or "negative" valence on the other (whether the emotional affect is positive or negative).

Effect		Average sharing
Activ-ation	High	4446
	Low	1851
Valence	Positive	2948
	Negative	1651

The **principal findings** here are:

- Videos that trigger a **strong positive reaction** in the viewer (high arousal, positive valence), are **shared** on average **30 percent more** than videos that trigger a high, but negative, reaction.
- If you compare the combined effect of arousal (high/low) and valence (positive/negative), it can be seen that the effect of activation (arousal) is stronger compared to valence. A **high activation generates twice as many onward transfers** as a low activation – while a positive affect "only" adds 30 percent.
- Further analysis shows: across all product categories, only 26 percent of videos trigger high emotional activation, i.e. **three quarters of all videos do not realise their full potential.**

The next question is: which emotions contribute to success? There are many positive and negative emotions for sure – but which have the best effect?

<b>High activ. + pos.</b>	<b>4623</b>
Low activ. + pos.	2203
High activ. + neg.	3737
Low activ. + neg.	1269

# What makes online ads go viral: the relevance of individual emotions

In the study by the Ehrenberg-Bass Institute just mentioned, the success of online videos was also examined with regard to specific emotions. In the process, positive emotions with high activation (e.g. astonishment or inspiration) and low activation (e.g. calmness, happiness) were examined, as were negative emotions in both forms (high activation: e.g. disgust, sadness, shock; low activation: boredom, irritation or frustration).

This produced clear differences. **Videos that trigger exhilaration in the viewer (e.g. when a personal triumph is featured) are shared most frequently, more so than for all the other positive emotions.** As far as negative emotions are concerned, it is predominantly anger that has a stronger effect than all the other negative emotions. If you then consider how many of the videos address particularly affective emotions, the picture seems rather sobering. Just 2 percent of the online videos examined trigger a feeling of exhilaration. On the other hand, **28 percent of the videos trigger a feeling of amusement, an emotion with low activation and correspondingly below-average sharing rates.**

The researchers' conclusion: *"It appears that the most commonly produced videos are not generating the emotional responses required for high rates of sharing."* (Nelson-Field et al. , 2013).

Positive Emotions				Negative Emotions			
High activation		Low activation		High activation		Low activation	
Hilarity	1929	Amusement	1377	Disgust	2652	Discomfort	1783
Inspiration	4900	Calmness	1139	Sadness	915	Boredom	985
Astonishment	3946	Surprise	2742	Shock	774	Irritation	589
Exhilaration	5790	Happiness	2245	Anger	0	Frustration	1448

# What makes online ads go viral: The relevance of creative mechanisms



There are many assumptions about which creative mechanisms lead to an ad winning online or being shared. Here too, the study by the Ehrenberg-Bass Institute sheds light on the issue. Firstly, it shows that **creative mechanisms appear not to be the main driver of success**. Analysis of drivers showed that each mechanism examined (babies, animals, celebrities, dances, comedy etc.) explained on average less than 1 percent (!) of the variance in viral success – with one exception: videos that feature a personal triumph explained 5 percent of the variance. This creative mechanism was however only used in less than 5 percent of the videos examined.

We have already seen that it is important for the viral success of an ad to trigger high emotional activation. So how do the various creative mechanisms fare? Is a baby a guarantee of high activation? No. For every "baby" ad that generates high activation (e.g. the famous Evian spot with the roller-skating babies) there are a similar number of ads with babies that only trigger low activation.

**It seems, therefore, to be less a case of the creative mechanism itself, but rather of the emotional affect that it generates.** With the exception of personal triumph, there appears to be no creative mechanism that shows an above-average effect per se.

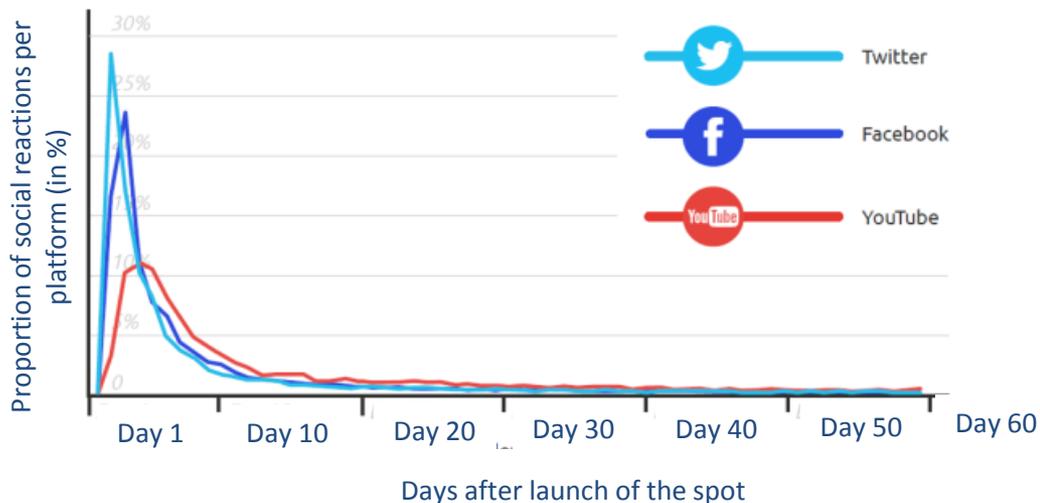
Put more positively: there are many creative ways to evoke positive emotions – and in view of the huge number of ads and competing messages it is absolutely necessary to be distinctive in the way in which one acts, or in which one creates a particular emotional affect. Put simply: the positive emotion that the ad triggers should originate in the brand and its values (see the Walkers Crisps example below).

# What makes online ads go viral:

## activation and valence are not enough; reach is what counts

We know now that the viral success of an ad is linked to its emotional affect: the ad should – independent of its creative mechanism – generate a high, positive activation. But that is not enough. High, positive activation is a necessary, but not a sufficient, condition for viral success. This is linked to the fact that **over 90 percent of people that watch an online video do not forward it** (see diagram below).

Microsoft researcher Duncan Watts already postulated, and provided empirical evidence of, so-called "[big seed marketing](#)" a long time ago. According to this, it is critical for the viral success of an ad that its "seeding" is correctly implemented – **the further the reach, the more people that see the spot, the more probable its viral success.**



The Ehrenberg-Bass Institute's Study of the Science of Sharing that was previously cited also comes to this conclusion: "According to our research over the last two years, **getting big is largely about getting seen. To be seen by many, the distribution must be optimised** - earned media alone will not result in huge reach." (Nelson-Field et al. , 2013).

According to this, the majority of successful (viral) ads are positively-activating, but not all those that are positively-activating become viral. Not until there is adequate reach does the probability of success increase strongly. Besides the emotional affect and reach there is however another key lever: the link with the brand. If the ad is not linked to the brand, the effect will fizzle out. Let's take a closer look.

# What makes online ads go viral: the importance of branding

In order for an online ad to positively influence sales for a brand, the ad must be clearly associated with the brand. Not integrating the brand until the end, as is common in classic advertising executions, is risky as not everyone watches the ad right to the end. But making the brand too prominent also appears to be risky, as, in the opinion of many experts, the viewer's attention span is then lost or the viewer explicitly realises that the intention is to influence him or her.

Harvard researcher Thales Teixeira has examined many online ads (using eyetracking, measuring emotions and EEGs). His recommendation is so-called [Brand Pulsing](#). **In this process, the brand is integrated unobtrusively into the ad, by repeated exposure but in each case only for a short moment ("pulsing")**. This increases the number of views by up to 20 percent. One example is Coca-Cola's "[Happiness Factory](#)" spot (see screenshots below). The ad shows a fantasy version of the inner life of a Coca-Cola vending machine. Coca-Cola bottles are shown repeatedly, but each time only for a moment.



A way to implement the brand pulsing principle in online ads, which has often proved successful, is to feature the brand as the hero of the story (rather than only as the originator of the story or merely in a pay-off line).

Many ads are tested today by measuring emotions; to find out whether, or in which places, the ad generates positive emotions or activates the viewer. One often finds though that the activation curve always sinks at the point where the brand is superimposed – and from that the conclusion is often drawn that the brand ought simply not to be too prominently integrated (e.g. not until the end). It must be remembered here that **a decline in activation can also arise simply because the brand or brand logo is known, while most images in the ad are new and unknown – and are therefore more activating per se.**

All in all, brand pulsing seems to be an expedient way of integrating the brand without losing impact – in particular if the brand is interwoven causally with the story (e.g. stress test: can the ad be narrated without the brand? Would the story also work if it were told by a competitor?).

# How online ads increase sales:

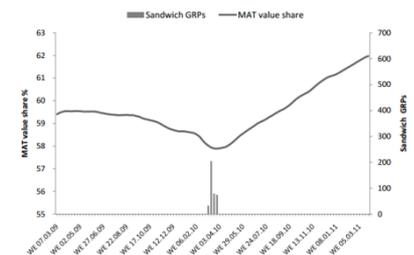
## Example: Walkers Crisps "Sandwich" campaign

The following example shows that digital or social media campaigns can not only increase awareness of the brand or positively influence the brand image, but can also increase sales. The well-known potato crisp brand *Walkers* had set itself the target of getting more Brits to consume their midday sandwich together with a bag of Walkers Crisps (which at the time only one out of ten did). The core idea of the [campaign](#): every sandwich becomes "more exciting" when it is combined with Walkers Crisps.

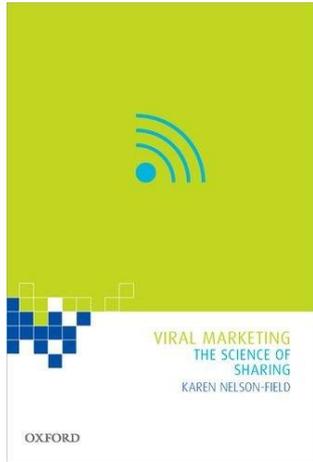
The basis of the campaign was an event in a sleepy English village with the significant name of 'Sandwich' (it really exists). A number of celebrities were sent into this village for one day: Jenson Button (Formula 1 driver) was a taxi driver, Pamela Anderson stood at the bar in the pub etc. The whole operation made the village of Sandwich more exciting. This content was broadcast via PR, TV and above all digital media.



**OUR IDEA:**  
Prove Walkers crisps  
make any sandwich  
more exciting.



# Further reading



- The new standard work on the "Science of Sharing" in the context of viral marketing.
- The author [Karen Nelson-Field](#) summarises a full scale study of the effect of online videos, with many practical insights and tips.



## The New Science of Viral Ads

by Thales Teixeira

- Harvard researcher [Thales Teixeira](#) examines what makes viral spots successful.
- Amongst other things, he shows in detail how to integrate the brand optimally into an online ad ("brand pulsing").

## Lectures

- **Annual congress of online trade 2014**  
**Dr. Christian Scheier**  
Subject: *Emotionalisation in E-commerce*  
(Bonn, 22 January 2014)
- **Return on Advertising**  
**Dr. Christian Scheier**  
Subject: *How advertising works – findings of neuropsychology*  
(Hamburg, 31 March 2014)
- **16th German Private Label brands congress**  
**Johannes Schneider**  
Subject: *What makes Own Label brands successful*  
(Cologne, 9 April 2014)
- **Federal Patent Court Symposium** : the brand in a state of tension between marketing and the law – the actual, and the legal framework of brands  
**Dr. Christian Scheier**  
Subject: *Brands from the viewpoint of the consumer: findings from neuro-economics and consumer psychology*  
(Munich, 10 April 2014)

## Seminars

- **ZfU Internationale Business School**  
**PD Dr. Martin Scarabis**  
Subject: Neuro-marketing in practice. What your customers really want.  
(Zürich, 10/11 April 2014)

## Press mirror

- **Kölner Stadtanzeiger, Magazine**

Interview with **Dr. Björn Held**

*"It's a case of treating yourself." Design and packaging are intended to seduce us– and we allow it to.*

[http://www.decode-online.de/downloads/pdf/KoelnerStadtAnzeiger\\_Kosmetikwerbung.pdf](http://www.decode-online.de/downloads/pdf/KoelnerStadtAnzeiger_Kosmetikwerbung.pdf)

(17 February 2014)

- **Verpackungsrundschau**

Contribution from **Dr. Christian Scheier**

*Packaging = TV ads on the shelf. How packaging influences sales and the experience of products.*

(Edition 6/2014)

## Trade publications

- **PD Dr. Martin Scarabis, Dr. Christian Scheier, Dirk Held:**

***Brand Code Management: How we position brands in the consumer's autopilot.***

In: Alexander Schimansky (Hg.), The value of the brand: brand evaluation for successful brand management.

(2nd Edition, *work in progress*)

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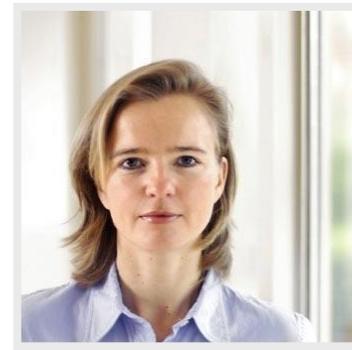
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