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# INTRODUCTION



COVID-19 has disrupted the world, forcing big changes for governments, economies, businesses, and society. The impact has accelerated trends that were already underway, particularly the growth of digital services.

The future is less certain as so much has changed, with many shifts in our lives likely to endure beyond the pandemic. While many of the old rules for brand growth can be expected to persist, how best to execute them is a minefield. More than ever, marketers need advice and guidance for how to navigate the new world.

The pages in this booklet are sourced from the Croft Blog: posts on marketing, media and data science topics. The excerpts that follow cover a range of subjects; examining the relevance today of long-established fundamentals for brand growth, delving into learnings from big data, providing tips on how to uncover useful signals from the growing digital noise.

I hope you will enjoy these pages. For more on Croft Analytics, and to view the Blog, please visit <u>https://www.croftanalytics.com</u>

Frank Harrison, Croft Analytics, February 2022

# BRANDS GROW BY BALANCING LONG AND SHORT-TERM GOALS

10 July 2020



Brands are the feelings we have about products and companies, cumulatively built over time. Branding helps to drive sales by making brands salient at the moment of category purchase. Brands appeal to our emotional sub-conscious: the super-fast 'System 1' primary driver of our decisions. Brands are vital for business success.

Unfortunately for many companies, attention to branding and building brands over the long term has taken a back seat in recent times, exchanged for a short-term sales imperative that has increased during tough and uncertain times. This has led to an over-focus on promotional advertising that targets our 'System 2' rational (and slow) conscious mind. Over-focusing on short term sales activation, at the expense of long-term demand generation, is leading to commoditisation, stripping margins out of brands, de-branding, and ultimately unselling brands.

This is not to denegrate promotions: the opportunity to maximise the short-term effectiveness of promotions has never been greater. Myriad opportunities to sell directly to potential buyers, to build and learn from first party customer data, and to measure minuteby-minute online behaviour, are fuelling more effective and efficient short-term sales. These data also create powerful new customer insight, and an online environment where every tactic can be tested and refined in real time. Programmatic advertising, using machine learned algorithms, can target those consumers most likely to buy, and serve them ads they are most likely to respond to. It not surprising that companies strive to maximise this opportunity. However, and here is the rub, at any one time the great majority of category

buyers are not buying in the category, and those that are most likely to buy a brand are existing heavy buyers of that brand. Over-focusing on targeted promotions to most likely buyers reduces brand exposure to a smaller number of people who are more likely to be existing customers (who would have bought the brand anyway, without the promotion). This reduces exposure of the brand, excluding category buyers who do not buy the brand: the people who are needed to grow the penetration of the brand over the long term. And penetration growth, increasing the number people who buy the brand, is the single most important cause of brand and business growth.

Brands maximise potential for growth by balancing marketing effort across three goals and their associated audiences:

1) Generating long term demand among non-buyers of the brand.

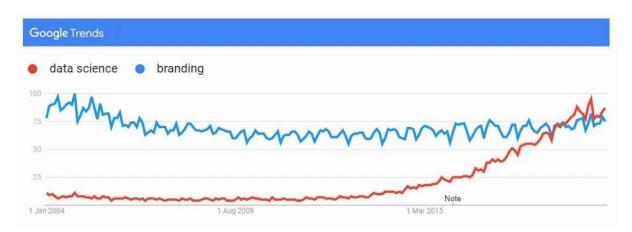
2) Building loyalty among existing customers.

3) Driving immediate sales activation among current buyers in the category.

The most effective balance for long term sustainable growth is unique to each brand, dependent on individual circumstance, there is no one-size fits all. The evidence suggests that, to maximise growth, companies need to adjust their marketing focus to address both long-term as well as short-term goals.

## WHERE IS THE SCIENCE?

17 July 2020



Despite a big rise in data science interest (see the chart), the exponential growth of data, and the sterling efforts of Byron Sharp, Les Binet, Peter Field, and Mark Ritson, the advertising world is sadly lacking major new theories that explain how brands grow in the digital age.

Yes, brands grow by getting more buyers and, yes, the five Ps of marketing are as relevant as ever and, yes, behavioural economics is terrific. But, as programmatic advertising grows ever larger and machine learned algorithms increasingly dictate who is exposed to what machine-learned ad – where is the new science that explains what works and what doesn't. How do the algorithms know?

There is plenty of scope for the AI to get it wrong. Here is an example:

Let's say that the goal for the programmatic advertising algorithm (there must always be a human-defined goal for machines to target) is to reduce the cost per sale. A machine learned algorithm, using clickstream data and not limited in any other way, will 'learn' that some people are more likely to buy than others so will increasingly target those people with the highest probability to buy. Increasingly exposing higher probability buyers to the ad will result in a higher sales conversion per person exposed and successfully deliver a lower cost per sale. Unfortunately, while the goal will be met, this will not be good for the sales of the brand because of two things:

 The people who have the highest probability of buying a brand are the heaviest existing buyers of that brand. They are more likely to buy the brand next time around, without being exposed to the ad, than someone who does not buy the brand. So, targeting highest probability buyers is an unnecessary waste of money – they are existing customers with high loyalty. 2. Failing to target lower probability buyers, people who do not buy the brand but who do buy other brands in the category, cuts the brand off from its acquisition target, reducing its reach and potential for penetration growth.

Programmatically targeting higher probability buyers will reduce the reach of a campaign, it will waste exposure on people who are most likely to buy the brand, it will (slowly) unsell the brand – but it will reduce the cost per sale. As sales go down!

So, where is the debate and the new science that shows how to programmatically maximise sales? – predictably, over the long term. Where is the new theory that explains how to grow brands in the digital age?

Here's my theory: the best way to grow a brand through programmatic advertising is to target category buyers who do not already buy the brand. What do you think?

## **ON SUSTAINABILITY**

18 July 2020



CHRAUN/Getty Images

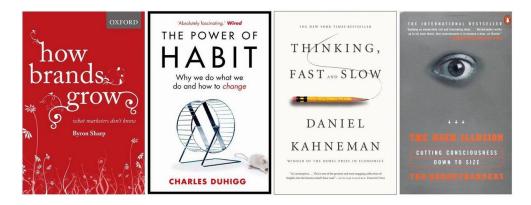
One of the big long-term trends that has been accelerated by Covid-19 is the growing interest that consumers have in sustainability, and the efforts that brands are making to use sustainable materials. Covid-19 has brought a new emphasis on establishing brand trust through communicating quality, ethical practices, environmental impact, safety, hygiene, and health.

Here is an interesting new report from McKinsey - 'Consumer Sentiment on Sustainability in Fashion' - that argues "Engagement in sustainability has deepened during the COVID-19 crisis, with European consumers wanting fashion players to act responsibly and consider the social and environmental impacts of their businesses."

## **GROWING BRANDS: ESSENTIAL READING**

## 22 July 2020

Here are four books that I recommend reading: they provide some of the most useful scientific findings of value to marketers.



**How Brands Grow** is by Byron Sharp, Professor of Marketing Science at the University of South Australia and Director of the Ehrenberg-Bass Institute for Marketing Science. The rules for brand growth in this book are based on empirical generalisations sourced from a large base of data over many years, categories and countries. It is a "must read" for anyone who is interested to discover fundamental rules that describe how brands grow.

<u>The Power of Habit</u> is by Charles Duhigg, a Pulitzer-prize winning reporter and author. This book shows that humans have brains that are always trying to shift our repeated conscious actions (like driving and a lot of shopping) into unconscious habits and routines. It includes terrific advice for marketers on how to reinforce as well as disrupt habits.

Thinking Fast and Slow is by Daniel Kahneman, a psychologist and the corecipient of the Nobel Prize for Economics in 2002 for his integration of psychological research into economic science. This book is packed full of wonderful insights into how our brains work. It explains that humans have a super-fast 'System 1' sub-conscious (highly emotional) brain where our decisions are made, and a very slow 'System 2' conscious brain. Full of scientific insight of great value to marketers.

The User Illusion is by Tor Nørretranders, an author of popular science. This book provides a detailed scientific examination of human consciousness. It explains that in any given second we consciously process only sixteen of the eleven million bits of information our senses pass on to our brains. We operate - living and making our decisions - almost entirely unconsciously. Our brains are sub-conscious reduction engines, filtering information out and only feeding 'important' information to our conscious brain. The most important message for marketers: to influence human motivation and behaviour you need to understand how the unconscious brain works.

# DATA: A CAUTIONARY TALE

23 July 2020



In 1983 I wrote a computer programme on a firstgeneration IBM PC that predicted the incidence of flu in the UK over the next week with 95% accuracy, every week. I was working at a company that manufactured flu remedies and the flu forecast was used to determine manufacturing volumes at the factory each week.

In 2008 the chief economist at Google, Hal Varian, published a paper revealing that Google search data could be used to estimate the incidence of flu. This was the start of Google Flu Trends, estimates of flu incidence that were published for 29 countries. Unfortunately it turned out that using flu-related search data could <u>not accurately</u> <u>determine</u> the incidence of flu so the estimates were <u>stopped</u> in 2015.

The flu incidence forecast that I made in 1983 used a small amount of weather data (particularly temperature forecasts) to predict the incidence of flu in the UK. It turned out that there is a specific temperature below which the incidence of flu accelerates rapidly in the UK. I imagine that the same programme would probably work well today.

Using a small volume of relevant data (in this case UK weather forecasts) can result in a prediction (UK flu incidence) that is more accurate than using a huge volume of less relevant data (billions of flu related Google searches).

The lesson is to question the suitability of data to answer a question. Using less relevant data can result in chasing solutions down rabbit holes. It is also important to consider the spectrum of data that is likely to be relevant. Limiting (and shoe-horning) to those data that are most readily available and voluminous can lead to misleading and inaccurate results, simply because the relevance was inferred rather than determined. Big data is terrific when it is applied to relevant questions.

# ON A GENERAL THEORY OF CONSUMER BEHAVIOUR

29 July 2020



Can buyer behaviour, like the behaviour of planets, be determined and predicted by general theory? Andrew Ehrenberg (see photo), who made most of his discoveries fifty years ago, published general theories of buyer behaviour that are turning out to be as resilient for marketers as those of Einstein for physicists.

In 2006 Ehrenberg wrote an article, '<u>My Research in</u> <u>Marketing: How it Happened</u>', summarising laws of buyer behaviour that, remarkably, persist today. These empirically grounded theories describe "how many people buy any brand and how often":

- The Negative Binomial Distribution describes the frequency of purchase of brands. This frequency of purchase pattern is repeated for all brands in all categories. It shows that most buyers of brands are light buyers, very irregularly buying the brand.
- The average buying rate for brands in a category is much the same for every brand, regardless of how big the brand, decreasing slightly with the brands' market shares.
  Small brands not only have fewer buyers than big brands, they also have a slightly lower level of purchase frequency a "double jeopardy" for smaller brands.
- 3. Brand buyers are polygamous, buying several brands in a category, some more often than others. Very few customers of a brand are 100% loyal to it over a series of category purchases.
- 4. How many customers of brand A also buy brands B or C in a period varies directly with how many then buy B at all, or C at all. This is known as the Duplication of Purchase Law.
- 5. The Dirichlet model describes patterns of repeat purchases of brands within a category. It models the counts of the number of purchases of each brand over a period of time, describing purchase frequency and brand choice at the same time. Dirichlet repeat-buying and brand-switching patterns recur, and can be predicted, in every category.
- 6. Attitudes about brands change after behaviour, after buying and using the brand, not before. Behaviour changes attitudes. Consumers' expressed intentions-to-buy a

reflect past purchases of it, and hence also their future ones if they are, as usual, much the same. But not any future changes.

7. Different competitive brands appeal to much the same kinds of consumers. There is very little brand segmentation within a category.

Ehrenberg argues that commonly used statistical techniques ("eg. Gaussian least-squares regression or multiple factor analysis") are of no use in determining buyer behaviour, comparing them to "blood-letting or cupping". He states, "these techniques have not led to a single lasting scientific discovery over the last 100 years or more, or even to mere claims to that effect". He says that scientific results on buyer behaviour should be "empirically replicated by hard slog, for different brands, products, countries, analysts, points in time, etc.". Findings should be "simple and generalizable". I agree.

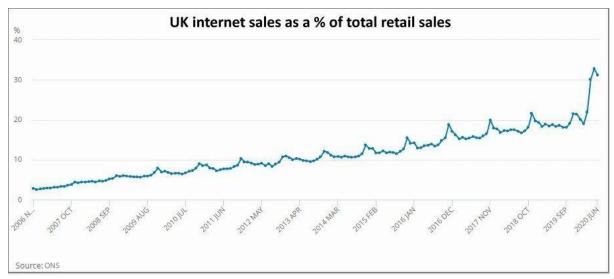
The challenge now is to replicate or refute or replace these laws using new data.

## THE 5 PS IN TRANSFORMATION: PRODUCT

### 4 August 2020

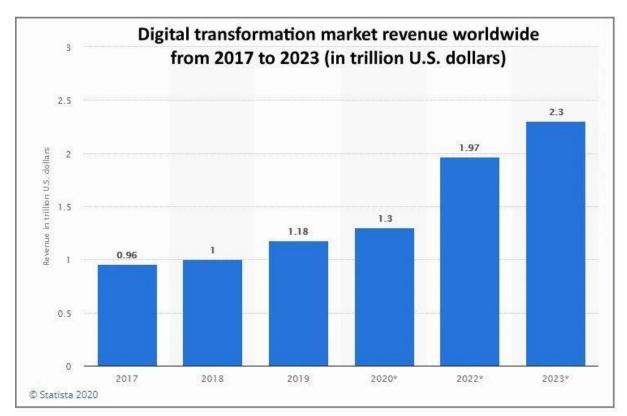
The five Ps of marketing - product, price, promotion, place, and people – are as vital to business success today as they were when first conceived fifty years ago, but after a long period of relative stasis they are now in flux as companies adapt to the digital age. The coronavirus pandemic has accelerated many of the trends. Understanding long term trends in the transformation of the five Ps helps marketers plan for more effective brand growth. Product is the P that is changing the most. Companies are transforming their products. Three clear changes are well underway for most consumer products:

### **1. Direct to consumer**



Selling products and services through e-commerce sites and platforms such as Amazon is rapidly becoming the norm (to the detriment of physical retail outlets). In the UK, the internet today accounts for almost a third of total retail sales according to the Office for National Statistics, up from 6% ten years ago. This trend has accelerated rapidly (see the chart) during the COVID-19 lockdown as households source more products online. The shift to online sales has multiple causes: the rise of Amazon and growing consumer demand for lower cost, faster delivery, wider choice online; the need for live first party data to inform machine learned algorithms and to test product and service changes; the rise of direct to consumer and the growing desire (and need) for businesses to control their relationship with customers.

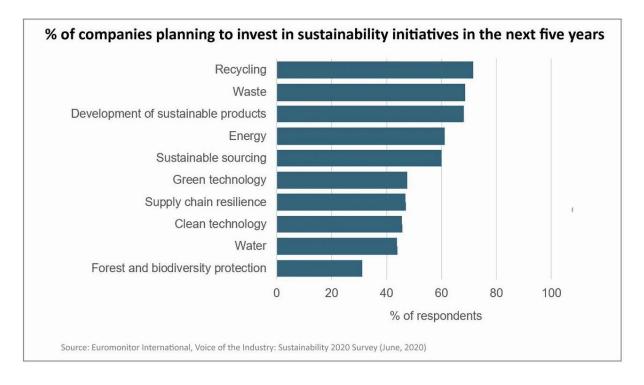
2. Digital services that expand and enhance products



Businesses today are transforming their products by adding digital services. In addition to providing e-commerce sales and home delivery, companies are:

- Using data to personalise customer experiences
- Building subscription and automated repeat purchase options
- Enhancing and customising loyalty programmes
- Providing online customer service options including automated chatbots
- Creating customer communities
- Providing 'how to' videos and platforms for customers to share product experiences
- Delivering faster and better response to customer questions and complaints
- Partnering with third parties to enhance products and services





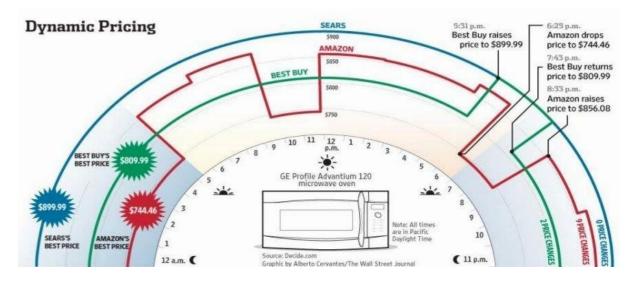
The coronavirus pandemic has accelerated this trend: consumers are increasingly turning to products that prove and demonstrate: a sustainable manufacturing process, from start to finish; a high-quality product that is healthy; a product that does not damage, rather improves, the environment.

According to Euromonitor's 'Voice of the Industry: Sustainability' survey, fielded in June 2020, more than 40% of all the respondents globally are planning investments in various sustainability-related initiatives in their company, with waste and recycling being at the top of the potential future investment lists.

## THE 5 PS IN TRANSFORMATION: PRICE

## 5 August 2020

In the days before online sales, changing the price of a consumer product was a lengthy affair, requiring alterations to signage in bricks and mortar stores. Measuring the effect of price changes on sales took weeks. Econometric modelling was used to determine optimal pricing strategies, but these models required historic time series data, typically over multiple years with multiple price points, to be effective, and the work and analysis often took months to complete, ultimately delivering a retrospective look at pricing. Pricing was slow.



Today, e-commerce platforms allow price changes to happen immediately, frictionlessly, and automatically. Machine learned algorithms can be deployed to determine optimal pricing, not only in the general, but on a continuously changing basis depending on demand and other factors. Pricing can be at the level of the individual buyer at a single point in time and be based on a combination of factors likely to impact the potential buyer's demand at that moment. The transformation in the use of AI for dynamic pricing is the norm in online service sectors such as travel and transport (eg. airline and hotel ticketing and Uber) and event ticketing, and increasingly being deployed to drive revenue for packaged goods sold online. Online retailers, Amazon in the lead, are experimenting with a wide range of automated pricing models. Dynamic pricing can take into account a number of real-time factors such as: competitor pricing, level of demand, location of the buyer, day of the week, and time of the day.

Automated dynamic pricing can be a terrific way to drive revenue. However, online selling also provides pricing transparency for consumers, the ability to instantly compare prices across multiple sellers, and this can lead to price wars that strip brands of their margins leading to wholesale commoditisation of product categories. Premium sellers in particular can find it hard to maintain or increase their pricing.

## THE 5 PS IN TRANSFORMATION: PROMOTION

6 August 2020



The big transformation in promotion is being driven through the use of online data, specifically clickstream data and (increasingly) customer data, to programmatically determine the who, what, and where of advertising. Digital data is the new currency for planning and placing ads.

While the programmatic use of data presents a terrific new opportunity for advertisers, over-focusing on online data can threaten advertising and business success. Challenges and 'watch-outs' include:

- 1. Limited contact. Consumers' contacts with brands impacts their propensity to buy the brand, so businesses should consider and invest in all forms of contact that category buyers have with their brands, not only digital contacts (the majority of consumer contact with brands is not digital). Over-focusing on digital contacts means that companies risk narrowing connections with potential buyers, limiting and reducing potential for growth. Brand managers need to take a wide holistic view of their consumers.
- 2. **Talking to the converted.** There is a seduction that grows with increased availability of customer data sourced online from websites, e-commerce platforms, social pages, email, user forums etc. Using customer data to build machine learned algorithms that target ads to those most likely to respond leads to an over-focus on heaviest most loyal buyers: the group of people most likely to buy the brand (without being exposed to any ads). In addition to campaigns that aim to increase customer retention and loyalty, brand managers should maximise the use of data to target

category buyers who do not buy the brand, the acquisition audience that represents the greatest potential for brand growth over the long term.

- 3. Short termism. The use of digital data has (so far) resulted in great success from, but also an over-focus on, short term direct response advertising immediate, measurable, behavioural, response to online ads. Seductive, but not necessarily in the best interests of the brand. The internet has replaced, and far surpassed, the print medium in its ability to deliver more effective and efficient direct response through relevant targeting at the time of need or desire. However, short term sales activation as an exclusive focus runs a risk of un-branding and ultimately un-selling the brands that businesses depend on for long term success. Brand managers need to balance long term demand generation, through brand building (mainly appealing to an emotional 'system 1' brain), alongside short-term sales activation and (also short term) customer loyalty.
- 4. An abundance of noise over signal. While growth in the number of data points is the primary reason why weather forecasts have improved in recent years, the rise in the volume of clickstream data has not led to big leaps in the ability of businesses to predict human behaviour and to harness data learning to drive business growth at least not for most businesses. Unfortunately, despite its abundance, the data is too disconnected (generally not cross-platform), too limited in scope (generally not accounting for non-digital factors), just too noisy. There are some exceptions, perhaps most notably at Amazon, where the use of data has led to significant business growth for Amazon. Brand managers need to step back and consider and harness all the data (regardless of source) that may impact category buyer purchase decisions in the short and long term for their brand. Predictive signals need to be extracted from the noisy cacophony of available data.
- 5. Limited data access. A huge and growing number of businesses sell their products and services through Amazon. It is the online retail platform that more people choose first in most categories. However, the immense volume of first party data that Amazon captures and uses the knowledge of individual buyer behaviour is not available to the businesses that sell through the platform. Because of the great success that Amazon has made of user data streaming through its platform, algorithms that ensure that most relevant products are shown to buyers at price points most likely to trigger purchase, businesses and consumers have increasingly come to depend on Amazon. While this has led to the phenomenal growth of Amazon, it has not helped businesses to improve their own promotions outside the Amazon platform. The most valuable first party data is walled off, out of reach, in the hands of the small number of platforms that advertisers increasingly depend on.

6. Over-reliance on first party data. As the opportunity and desire to make use of third-party cookies declines, businesses are turning to their own first party data. Unfortunately, by definition, the majority of these data are from existing customers. While these data are most useful for building knowledge around and guiding customer retention and loyalty activities, they can lead to an over-focus on customers and a failure to address the group of people that are vital for long term business success – those category buyers who do not buy the brand.

A key message for businesses and their brand managers is that brand growth depends on a vital balancing act that is unique for each brand: between short term and long term; between sales activation and demand generation; between customers and non-customers; between online and offline; between rational and emotional advertising. The new fuel that is data is wonderful, presenting terrific opportunities for business growth and driving the necessity for transformation. However, brands need to avoid over-focusing on the short term, on direct response, on customers. Brand growth in all categories is ultimately built through the acquisition of new buyers, by increasing penetration over the long term.

## THE 5 PS IN TRANSFORMATION: PLACE

7 August 2020



Place, where products and services are produced and made available for buyers, has been transforming from offline to online for almost thirty years. This trend has been accelerated by the global COVID-19 pandemic, with many businesses speeding up plans to move online as lockdown measures have been implemented.

Service businesses were the first to switch from physical to digital - travel agents, banks, all forms of professional service migrating from customer-facing stores and offices to cloud based services and e-commerce platforms. One of the big long-term changes, dramatically accelerated by social distancing measures during the pandemic, has been the migration from office working to home based working, spawning and boosting many cloud services including Zoom, Microsoft Teams, and Google Meet. Eventually, when coronavirus is no longer present, will home working be a much larger element of the normal pattern of work? Is office space on the same downward path as retail space?

The Place for physical products - across manufacturing and distribution - has also been in flux, with an ever-increasing level of digitisation and growth in online sales. Again, this trend has been accelerated by the coronavirus pandemic. The big rise in home delivery is causing dramatic shift in the nature of distribution for manufacturers.

What will be offline in the future? Which products and services are best located in physical outlets? For many businesses there will be a balance. Offline environments can provide a much more immersive and emotional experience for buyers, valuable for band building and recommendation, boosting online sales. Apple Store was created with this objective, to provide consumers with a terrific and uniquely distinctive experience that could not exist

online, in flagship stores that caused buzz and became a magnet for buyers, showcasing the leading designs in Apple products. Growing numbers of businesses are following the Apple example.

## THE 5 PS IN TRANSFORMATION: PEOPLE

## 9 August 2020

Of the five marketing Ps, the transformation of People is perhaps the greatest: for workers, for customers, for the world's population. This has been driven by seismic change across society, economy, and government as the world is transformed by the greatest revolution of all: the digital revolution. We are experiencing and adapting to a time of 'punctured equilibrium'. Looking over our shoulder at the changes of the recent past can be helpful, but predicting where the world will be, even in just a short-range future, is proving to be harder than ever. Here are some of the People changes, and some thoughts on more persistent trends.

#### Workers



The digital revolution has spawned one of the biggest changes in the structure of work: the gig (or contract) economy. Platform technologies have created new jobs and a new way of working for up to 30% of the workforce in the USA and Europe who today work in the gig economy. Growing fluidity and flexibility in working practices is a long-term trend. Upsides for workers can include the freedom to choose where and when to work and for how long, and reduced entry and operating costs for businesses. Potential downsides include the loss of benefits and security that come with traditional employment, with blurring of legal rights that can result in low incomes, social isolation, overwork, unsocial hours, and other deprivations. With continued growth in platform technologies, and ever more opportunities for emerging platform businesses, the gig economy is a trend that is likely to continue to grow.

Other big changes in how we work include the shift to open plan offices, hot-desking, flexible working hours and working from home. Of course, the COVID-19 pandemic has forced most people, who are able to continue working, to work from home. The longer that the pandemic persists the more that working from home becomes normalised, for workers

and for companies. The pandemic is causing a reappraisal of working practice with businesses reviewing opportunities to change the balance between office and home working and to reconsider office requirements and use of office space. For some service sectors there may be long term change, with increased numbers working effectively from home.

Another significant change is the increasing focus on social justice, equal opportunity, and transparency for workers, with diversity of all kinds within organisations driving greater creativity, innovation, commitment, and productivity - vital to sustain companies through times of change. Research has shown that heterogeneous teams consistently out-perform homogeneous teams.

#### Customers



Data, digital data, is transforming how companies are able to connect with, provide for, and respond to their customers, with myriad opportunities to customise and personalise customer interactions online - driving sales more effectively and efficiently than before. The emerging science that is 'Artificial Intelligence', the science of machine learned algorithms, has the potential to discover patterns in data that can lead to new products and services and innovation. Customer experience mapping, at each point on the customer journey (before buying, during the purchase, and when the product is used), is a growing focus for most businesses. Customer data mining and analysis can help to smooth out bumps in the experience, enhance the experience, build loyalty and sell across and upwards within product and service portfolios.

The continuous transformation of the other '5 Ps' (see earlier blog posts) is driven by one long term trend - the increasing digitisation of everything - and this is leading to ever greater volume and analysis of customer data. The growing focus of attention on customers is likely to continue. However, as mentioned in earlier posts, while optimising customer experience is an imperative, there is also a vital need to maintain balance of marketing to noncustomers (potential customers of the future) as well as existing customers.

# ON DATA AND DATA SCIENCE

12 August 2020



Firstly, some definitions.

**Data** are all around us, and always have been, forever helping us to understand the world. Data are observed units of information, such as the current temperature, or the height of Everest.

When data is processed, organized, structured, or presented in a given context so as to make it useful, it becomes **information**.

**Knowledge** is understanding of, or information about, a subject that you get through experience or study.

**Insight** is having a clear, deep, and sometimes sudden understanding of a complicated problem or situation, such as the understanding of a specific cause and effect within a particular context.

**Science** is a systematic enterprise that builds and organizes knowledge in the form of testable explanations and predictions about the physical and natural world through observation and experiment. It is a systematically organized body of knowledge on a particular subject.

**Data science** uses scientific methods, processes, algorithms and systems to extract *knowledge* and *insight* from data. The crucial word is 'science' not 'data'. Without the science the data is meaningless. In the digital world, data is plentiful, but science is scarce.

Data science is often wrongly interpreted as the process or algorithm or system, with little (if any) attention to the extraction of knowledge or understanding. To my mind, data

scientists should focus efforts on insight from application of scientific method and, in the true pursuit of a body of scientific knowledge, share findings for peer review. Data science should strive to build knowledge through theories that can be openly tested.

Data science should uncover <u>and publicise</u> rules, systemic predictions about how things work (and don't work) built from empirical generalisations – these rules should apply repeatedly, systemically. The rules can then be used to predict effects from specific actions. In this way the science of data helps the world to progress.

Unfortunately, too much data science is hidden from public view, too "valuable" to emerge from corporate walled gardens. So, here is my plea to data scientists, from this tiny corner of the web – please publish your findings on new scientific rules, open them up for peer review, help to build new knowledge and insight about what works and what doesn't in the digital age. Share the science, as well as the data.

# **ON CUSTOMERS AND NON-CUSTOMERS**

18 August 2020



Think about the brands that you don't buy in a category. Most people don't think about brands they don't buy. Thinking about brands that you don't buy just isn't important, so you don't. For most people, as non-buyers, there is close to zero thought for the brands that they don't buy. Other, much more important aspects of our lives capture our thoughts: our family, our jobs, our passions, our day-to-day lives.

Now think about the brands that you do buy in a category. They pop to mind easily. You know what toothpaste you buy, your coffee, your car. You know them well. As a buyer you pay much more attention to the brands that you buy. On average, your ability to recall brands you buy is almost three times higher than your recall for brands that you don't buy in the same category.

Now consider that every time you use a brand that you have bought, your perceptions of it, your thoughts and feelings about it, are repeatedly being reinforced – every day your toothpaste, coffee, car is reminding you about that brand whenever you see and use it. Your repeated use of the brand informs you cumulatively about that brand. The contact you have with the brands you have bought is very much greater than for the brands that you don't buy, and every time you use a brand the experience impacts your likelihood to buy the brand again the next time you buy in the category. The brands you don't buy don't have the luxury of your use.

Also, consider that our brains like the things that are familiar to us (e.g. our family, our friends, our home, and the brands that we buy), because they are known, and our brains do

not like things that we are not familiar with (e.g. the brands we don't buy) because we don't know them so well. We are biased, without being consciously aware of it, in favour of the brands we buy, and we are biased against the brands we don't buy. Familiarity is an important driver of our motivation and behaviour, influencing what we think and what we do.

Now think about advertising to people who are non-buyers of a brand compared to advertising to the current users of that brand. Engaging with non-buyers, attracting their attention (either consciously or sub-consciously), is much harder and much less likely to result in a purchase of the brand, than amongst existing buyers. Penetrating the wall of indifference amongst non-buyers is difficult. Connecting with buyers, with existing customers, is much easier.

So, it is not surprising in the digital age that customers and customer data are a great seduction for businesses. Customer data is growing rapidly, in line with the growth of e-commerce and other digital services. First party customer data can feed algorithms that automatically find more effective and efficient ways to sell to customers. Customers are much more likely to respond than non-buyers. Algorithms can automatically seek out people with a higher probability to buy right now – the existing most loyal buyers of the brand. Non-customers are much less likely to be attentive and much less like to buy the brands they don't buy, so they are more likely to be excluded by algorithms that seek out high probability buyers.

But brands grow by acquiring new customers, the non-buyers of the brand, not by increasing loyalty amongst existing customers. The evidence for this is overwhelming, a substantial and growing body of proof that has been popularised by Byron Sharp and the Ehrenberg-Bass Institute for Marketing Science, and repeatedly proven by comparing brand penetration levels to brand loyalty levels within any category. Penetration (having more buyers) always trumps loyalty (customer purchase levels) as a descriptor of brand size and as a driver of brand growth. Big brands, in any category, have many more buyers than small brands (over any timescale) and variance in penetration accounts for differences in market share to a far greater degree than variance in loyalty (even though bigger brands generally have a slightly higher level of average purchase frequency than smaller brands).

Given the wall of indifference that non-customers have for the brands they don't buy, most contacts that brands have with non-buyers are mainly soft nudges, contributing to a generally sub-conscious and slow-growing cumulative familiarity with the brand that gradually increases propensity to purchase the brand in the future, possibly taking many years. Every contact of the brand amongst non-buyers has a positive contribution to future sales but the effect is slow, much slower than contact effect amongst customers. Acquiring new buyers takes time, it requires long term thinking, long term planning, long term measures, and acceptance that acquisition of non-buyers over the long term is the way that

most brands grow, by reaching and nudging non-buyers repeatedly over time. Very few small brands rapidly grow to become category leaders in established categories. This is because we don't think about the brands that we don't buy.

## ON THE CHALLENGE OF REACH AND FREQUENCY

21 August 2020



If you want to sell more of your product or service, it is a good idea to make sure that your brand reaches a lot of people, lots of times. Reach and frequency make sense. However, measuring and planning and controlling the reach and frequency of exposure for a brand, something that used to be relatively straight forward, has become increasingly complicated and challenging (arguably impossible) for brand managers.

Why is the measurement and control of reach and frequency so important?

Read 'How Brands Grow' by Byron Sharp to find out that all brands grow by increasing penetration of category buyers, by attracting new buyers to the brand, and that reaching as many non-buyers of the brand as possible is the approach you should adopt to increase penetration by nudging non-buyer propensities to buy your brand. Mr Sharp argues that brands should target widely, reaching all category buyers. People who have not heard of your brand will not buy it. Reaching lots of people makes sense.

Frequency is also important. The science of the human brain shows that two things happen in our brains sub-consciously when we are exposed to something repeatedly (regardless of what it is) without us being able to do anything about these effects: firstly, whether we like it or not, we become familiar with it; secondly, with continued repetition, we become increasingly positive towards it because our brains are biased in favour of what we are familiar with. Frequency drives familiarity and positivity, two vital ingredients for long term sales growth.

Now consider this. Every type of contact that consumers have with a brand contributes to that brand's reach and frequency and (to varying degrees) to sales: seeing the brand on the shelf in a store; hearing about it from a friend; seeing it on a Facebook timeline; seeing

someone using it; seeing an ad on TV for it; using the brand yourself; reading an article that mentions it; and so on. Every one of our exposures to a brand contribute (mostly subconsciously) to our associative memories about that brand, creating the sense of 'brand' in our brain. Each exposure, every one of them, influences our likelihood to buy the brand the next time we buy in the category, cumulatively and over the long term.

The probability that someone will buy a brand is much more complex than reach and frequency of exposure to that brand. How we respond to a brand in a buying situation is dependent on many factors (contextual, economic, social etc.) that vary from person to person and from moment to moment. However, we can be sure that someone who has been repeatedly exposed to a brand over time (particularly if they have previously used the brand) will be more likely to buy that brand than someone who has no prior exposure to the brand. Reaching lots of people lots of times is a good idea.

Now, the challenge. Meaningful measurement of reach and frequency requires timely and accurate measurement across all forms of exposure that people have of the brand. You need to measure the net total reach and frequency of your brand across all channels. Measuring reach and frequency solely within one channel or platform provides an inaccurate (potentially misleading) measure of consumer exposure to the brand. Our brains do not compartmentalise brand memories by channel, they combine exposures across channels to form associative memories that cannot be untangled. Single channel measures don't show the net total exposure of a brand across all channels (paid, owned and earned, offline and online). Knowing that the reach of an ad in a single channel across a week was x% and the average frequency was y does little to inform marketers how many people were exposed to their brand how many times - in total, across all channels - during the week.

Measuring reach and frequency accurately has become increasing difficult in recent years. Historically, when there were far fewer media choices (five major media) and shopping options (physical stores, supermarkets), brand managers were able to measure and control most of the exposure to their brand. Not anymore.

The internet has created so many news ways to expose people to brands: through websites, search engines, social pages, forums, video channels, apps, video games, virtual assistants, streamed events, SMS, email, etc. The list of options, and the reach of the internet, gets larger every year. However, while many of the owners of digital platforms provide their own measures of reach and frequency for their platform (often using different, non-comparable methodologies), there is no way currently to measure reach and frequency <u>across</u> the major competing digital platforms. Even within a platform, measuring net reach and frequency accurately across devices is extremely difficult if not impossible. But this is only part of the problem: marketers need to combine digital exposure with non-digital exposure. Measuring reach and frequency of exposure, the net total exposure of a brand amongst a group of people across all forms of contact, is becoming harder and harder.

How can marketers measure, plan, and control the net cross-channel reach and frequency of their brands today? While it may be possible to obtain (variable) measures within most channels, granular and timely cross-channel net reach and frequency is not currently measurable, becoming less measurable, and becoming more complex as the fragmentation of audiences across paid, owned and earned channels continues to grow. Marketers and channel owners need to find and agree a methodology that provides accurate (enough) cross channel reach and frequency for brands across all paid, owned and earned contacts, offline and online. Excluding any relevant contact types risks excluding important sales drivers. This is the big challenge of reach and frequency.

# ON THE LEGACY OF THE PANDEMIC

26 August 2020



"Those who cannot remember the past are condemned to repeat it." George Santayana, 1905

Looking back from the future, in a post-pandemic world, how will people judge the current government and society response to the COVID-19 pandemic? Will the world be better prepared for the next pandemic? What will the legacy of this pandemic be?

In an uncertain world, one thing is certain: the current pandemic was predicted eleven years ago. In December 2007, the United Nations published '*39 Steps Governments Should Take to Prepare for a Pandemic*', stating that "Experts at WHO believe the world is closer to an influenza pandemic than at any time since 1968."

In 2008, the World Health Organization published the 'Pandemic influenza preparedness and mitigation in refugee and displaced populations' report, estimating that a future influenza pandemic could infect up to 35% of the world's population (2.7 billion people) and that up to 2% of those infected could die (55 million people). The report states "Once a fully contagious virus emerges, its global spread is considered inevitable. The pandemics of the previous century encircled the globe in 6–9 months. Given the speed and volume of international air travel today, the virus could spread more rapidly, possibly reaching all continents in less than 3 months. The pandemic is likely to return to a region in 2–3 waves, for example for 2–3 months each year over 2–3 years."

During the 20th century there were three significant influenza pandemics. In 1918/19 'Spanish Flu' resulted in 50 million deaths worldwide. In 1957/58 'Asian Flu' killed 1.1 million people. The 1968/70 'Hong Kong Flu' killed one million. Then, after a thirty-year gap, came SARS in 2002/03, resulting in a total of 770 deaths, 'Swine Flu' in 2009/10 killed 200,000 people, and MERS in 2012 killed 850 people.

Despite the 'highly likely' prediction of a pandemic from WHO in 2007, we now know that governments were slow to respond effectively to the emergence of the COVID-19 virus. Why did they delay? One reason may be because there had not been a major global pandemic for fifty years, and SARS, MERS and 'Swine Flu' did not spread to become the major threat to the world's population that was anticipated. Additionally, WHO estimates that between 290,000 and 650,000 respiratory deaths occur each year due to 'normal' seasonal influenza, so none of the early 21st Century outbreaks exceeded the annual impact of flu. It seems that many governments took a 'let's wait and see' approach to COVID-19, hoping it might 'fizzle out' before it became a major global threat. With hindsight, we know that delaying the closing of borders and delayed imposition of social isolation lockdowns allowed the COVID-19 virus to spread rapidly and dramatically around the world. So far, COVID-19 has killed 814,000 and infected 24 million people worldwide. Nobody is predicting that the pandemic will be over soon.

COVID-19 has changed the world, the legacy will not solely be one of high mortality. Globally, government and civic society will be different in the post-pandemic world. The memory and lessons of this pandemic will persist. We can expect major long-term change to the world's economies, governments, and societies. My next blog post will explore postpandemic category and consumer changes. A number of major shifts are already likely.

## **ON THE POST-PANDEMIC WORLD**

27 August 2020



The post-COVID-19 world will be different in many ways from the pre-pandemic world of just nine months ago. Too much has changed, and will yet change, to allow the world to slip back to the pandemic-free life that we all enjoyed between 1968 (the last major global pandemic) and 2019.

Many long term societal and business trends that were already progressing steadily before the pandemic have been dramatically accelerated in the last eight months. These trends are likely to persist and continue to grow, impacting businesses, their products and services, and how they market their brands. Here are some of my best guesses for "new normal" trends after the pandemic.

#### Working From Home

There have been big changes in the way that people work for a number of years. Initially there was a shift to open plan offices and hot-desking, then flexi-working and a rise in working hours that took place from home rather than from an office. The WFH trend was well underway before the pandemic.

Today most workers have been forced to work from home and businesses have adapted to this change by adjusting processes, people management, and how work is done individually and collaboratively. Some studies have shown there has been a big increase in productivity and businesses benefiting from hours swapped from commuting to working. After the pandemic will businesses reduce their office costs and base more of their workers at home? It seems likely that many will and that the WFH trend will continue.

There will be a large knock-on effect from the rise in working from home. It means fewer commuters, less pollution from cars, less need for petrol, a decline in the business sector dependent on commuters, fewer and smaller offices, a potential hollowing out of urban centres, and population migration from urban to rural. It also means more businesses that cater to people working at home and growth in technologies for home workers. Marketers need to consider the growing WFH population, how to adapt products and services and marketing for home workers.

#### Healthier, Safer, More Protected Planet

These are long-term trends that were well underway before COVID-19 emerged, now accelerated by the pandemic. Consumers in the post-pandemic world are likely to be more conscious (and sub-consciously biased) about the quality of products they buy, how healthy they are, and their impact on the planet. A large and growing population is increasingly concerned about the planet, climate change, damaged rainforests, decline in species, pollution, globalisation, sustainability, and inequality (of many kinds). After the pandemic, businesses will increasingly focus on these trends, demonstrating the quality, safety, sustainability, and planet-friendliness of their brands.

#### Disrupted Habits and the Need for Trust

Humans are habitual, we like to have routines and habits that we stick to. Our brains are wired to habituate our behaviour and our day-to-day life. Breaking habits is hard for marketers. However, at times of major change in our lives (such as moving home, getting married, having children etc.) our brains and our habits are disrupted. During these times we are much more likely to review and change our habits and the brands that we buy. The COVID-19 pandemic has (brutally and suddenly) disrupted the habits of the world's population. We are now in a time of extraordinary change. Sub-consciously driven habits are all up for review and potential change. In the post-pandemic world, our minds and behaviours will begin to habituate again, but changed, newly oriented to products and services that best fit with our post-COVID outlook on life.

Humans have an innate need to trust, our sub-consciously driven attitudes and decisions are based on trust. COVID-19 has disrupted trust at many levels: in government, politicians, experts, and in the products and services that surround us. In the post-pandemic world brands need to work harder to be trusted, to establish trust, to demonstrate that they can be trusted.

## ON THEORY > DATA > INSIGHT > EUREKA

2 September 2020



If you want to make the most of data, it is a good idea to start with a theory. That way you have a reference point for data that either supports or disproves the theory. Here is a good example.

#### THE THEORY

A planner that I once met told me a theory, based on her personal experience. Her theory was that girls suffer from a crisis of confidence at puberty that, combined with gender stereotyping at that vulnerable time, lowers their self-confidence throughout their lives.

#### THE DATA

A long search online uncovered an extraordinary piece of evidence about self-esteem – see the chart below - that was based on a global survey of 327,000 people. The chart shows the following for girls/women:

- Self-esteem in girls is high (and the same as in boys) when they are 11 years old, but as they go through puberty
- there is a big and continuous drop in self-esteem in girls that reaches a low point when they are 20,
- remaining at this low level until they are 39,
- then rising slowly until they are 68,

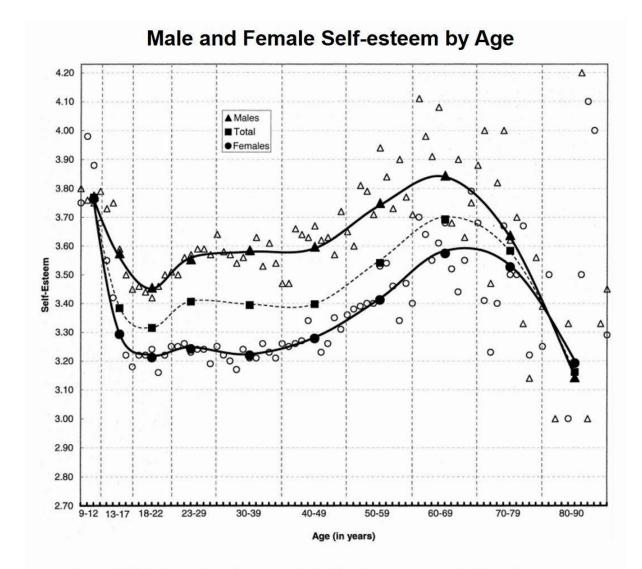
• but never returning to the high level of self-esteem that girls had when they were 11

The data tells a different story for boys/men:

- Self-esteem in boys also falls between 11 and 20, but to lesser degree than in girls,
- then rises sharply during their 20s
- then rises slowly until they are 45
- then increases to match the high self-esteem of 11-year-olds by the time they are 55
- and continues rising until a higher peak is reached aged 65

Throughout their lives, boys/men have higher self-esteem than girls/women after the age of 11.

Here is the chart:



Source: Global Self-Esteem Across the Life Span, 2002, Robins, Trzesniewski, Tracy, Gosling, And Potter

#### THE INSIGHT

These data, together with other points of reference, led to this insight: gender stereotyping of girls severely damages their self-confidence in a way that persists throughout their lives.

#### THE EUREKA MOMENT

The ad that was created from the theory, supported by data and insight into loss of selfesteem amongst girls led to one of the most awarded and successful ads of all time: Like A Girl.

The paper that the chart came from is here

The case study, written by the planner that I met - Anna Coscia - is here

# ON THE IMPORTANCE OF BEING FAMOUS AND PERSONAL

11 September 2020



When it comes to buying anything, trust is perhaps the most important factor. If you don't trust something, you won't buy it. There is a lot rolled up in 'trust': credibility, authenticity, reliability, safety, security, quality. If you trust it you are much more likely to buy it.

A good way for a brand to be trusted is to be famous, to "be known about by many people", and, *more importantly*, to ensure that many people know that many other people also know the brand. Fame requires a collective (rather than individual) experience. Everyone knows that everyone else knows. Fame creates trust. If everyone else knows about it and is buying it then it can be trusted.

Traditional mass media, by its nature, can be used to create trust. It can reach large numbers of people collectively. Everyone sees the same thing. The same editorial and advertising. You know that everyone else is seeing the same as you. TV advertising has historically been used by companies to create trust through fame. Large numbers of people seeing the same ad at the same time - collectively knowing that many others are seeing the same ad - can be a powerful way to build trust. A key element is that the limited nature of the available media delivers a collective viewing/hearing experience rather than one that is fragmented. This is why Super Bowl ads remain so popular today.

Digital advertising, by its nature, is not a collective experience. When you see an online ad you don't know that everyone else is seeing the same ad as you. The ad might be personalised; different people might see different ads at different times. Even if a digital ad

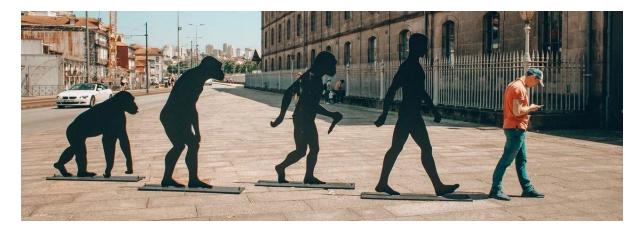
reaches a large population, you have no sense of the size of the audience. It could just be you. So, the creation of trust through known collective fame is much diminished. Digital advertising - what you see and when you see it - is fragmented to the level of the individual. Digital advertising is personal.

Personalised advertising has a different purpose that can, when combined with fame, help brands to grow. It makes advertising more relevant, appropriate, specific to a particular moment of individual need or want. It is more likely to trigger a sale than an ad that is less relevant. But the brand must also be trusted.

To grow, brands need to be famous and personal.

# ON THE WONDER OF SCIENTIFIC DISCOVERY

18 September 2020



One of the greatest books ever written, at least to my mind, is <u>The Ancestor's Tale</u> by Richard Dawkins. The book describes the wonder of evolution by tracing each genetic ancestor of humans, chapter by chapter (40 chapters!), all the way back to eubacteria, the origin of life and common ancestor of all living things. This genetic tree of ancestral life is a wonder that took philosophers and scientists well over 2,000 years to fully discover, finally immortalised by Darwin.

The scientific path that applies in marketing, the science of human behaviour and motivation, appears to be moot today. The internet has caused such change in consumer behaviour, of buying and selling, from offline to online, that many believe the "old" rules no longer apply, that all in the world is new.

In 1923 Claude Hopkins wrote <u>Scientific Advertising</u>, an early attempt to describe "laws of advertising" – the opening paragraph of the book states "The time has come when advertising has in some hands reached the status of a science. It is based on fixed principles and is reasonably exact." Much of the content in this book continues to have relevance today (it is well worth reading). For example, "Human nature is perpetual. In most respects it is the same today as in the time of Caesar. So, the principles of psychology are fixed and enduring. You will never need to unlearn what you learn about them."

In 2010 Byron Sharp wrote <u>How Brands Grow</u>, presenting "scientific laws about buying and marketing performance". The rules in this book, described as "myth-busting", are based on data from sixty years of research. It just took someone to make them more visible - to market them. When it was first published many marketers (perhaps most) were not convinced by the laws it advocates. Today, while it has probably become the most followed guide for marketers, its laws remain much contested.

There have, of course, been many other books published on behavioural science, most based on long term learnings from psychology. However, it is hard to find a consensus in the marketing community regarding the application of learnings from behavioural science. Marketing opinion is splintered.

The science of human behaviour and motivation should be enjoying dramatic growth as the computation power and AI available today can now be used to extract new learnings from the vast array of available data. Yet, so far, despite the phenomenal size and power of companies such as Amazon, Google and Facebook, very little (if anything) has been published that could be described as new scientific discovery – new rules that describe human behaviour and motivation predictably, systemically, permanently. In reality, the marketing science learnings and rules that apply today were discovered many years ago. The question is whether the new era of data will bring wonderous new scientific learnings to light for marketers.

# ON USING GOOGLE SEARCH TO PREDICT THE FUTURE

25 September 2020



About 15 years ago, three executives from Google visited me to ask about advertising. While they appeared to be intelligent engineering types, they seemed to know very little about advertising or marketing. They wanted to know all about it in one hour. I told them what I could in such a short time. They tapped away on their laptop keyboards like stenographers, trying to capture every word.

One of the things I told them was that Google could help companies to predict trends in their category. They tapped away. I told them that a machine learned algorithm could be tasked to identify rising and falling trends (predicting the future) in a category based on some simple rules:

- 1. *Track search word and phrase volumes* that relate broadly to a category or to a topic on a daily/weekly/4-weekly basis.
- Set a *minimum search volume* within a country perhaps a million searches per day or week, or a minimum per capita volume. Use this to exclude any high indexing 'trends' based on small volumes that are noise rather than signal.
- 3. Set a *minimum rise or fall level* per day/week that must persist for a minimum number of days/weeks perhaps for 12 weeks before search patterns (up or down) can be determined to be a trend. The continuous change in the volume must continue in every week. Adjust the minimum rise/fall level so that it is not linear but a diminishing curve over time.

- 4. *Estimate search volume* for the next day/week/4-weeks based on the persistent trend over the prior weeks. The algorithm should improve the prediction over time.
- 5. Each day retrospectively check the actual volume for the prior day/week/4 weeks against the estimated volume and *adjust the algorithm* to improve the prediction for the next day/week/4 weeks.
- 6. If the prediction is accurate, *publish the trends* for companies in the category.

This machine learning method should result in an accurate prediction of a persistent trend (up or down) in a category. Publishing category trends for companies in the category would be immensely useful for marketers and business planners. Come on Google.

# **ON BRAND LOYALTY**

2 October 2020



General definitions of loyalty include "the quality of staying firm in your friendship or support for someone or something" and "feelings of friendship, support, or duty towards someone or something". However, when it comes to brands, loyalty has a different meaning that is well defined as "purchasing the same product or service repeatedly". For consumers, brand loyalty has little to do with emotions and feelings, more to do with habits and routines. The level of brand loyalty is the frequency of purchase of a brand within a defined period.

A large and growing global body of evidence shows that brands have very few loyal (e.g. regular repeating) purchasers and that all brands exhibit the same frequency of purchase pattern, irrespective of brand size – the Negative Binomial Distribution - with a long tail of very light purchasers. Kantar has published some interesting empirical generalisations on brand loyalty for CPG/FMCG brands:

- About half of the buyers of a brand in a year will no longer be buying it in the following year.
- About half the buyers of a brand in a year did not buy it in the previous year.
- The most popular purchase behaviour amongst buyers of a brand in a year is to buy it only once in the year.

- People buying only once or twice in a year account for about half of all buyers of a brand.
- Over five years, about 80% of CPG brand buyers buy once a year or less delivering 40% of sales.
- Penetration is broadly predictable, doubling from a quarter to a year, and from one year to five.
- Shoppers are typically disloyal to brands. Buyers of a brand in a category are similar to the buyers of other brands in the category.
- The largest brands in a category have marginally higher frequency of purchase than the smallest brands, but a much larger number of buyers.
- Price promotions have no impact, in the longer term, on market share or penetration for a brand.
- For most of its customer base, a CPG brand is rarely bought and easily forgotten.

The evidence shows that, rather than focusing on regular purchasers, brands should target non-buyers and infrequent buyers. With half of buyers leaving each year this is vital just to maintain existing penetration levels. To grow, brands need to convert a large number of buyers who did not buy in the last year. The evidence shows that most brands grow, not by increasing repeat buying from existing customers, but mostly by attracting new, largely very light, buyers.

# ON ADVERTISING IN A RECESSION

9 October 2020



In a normal recession people have complete freedom to travel around, see their friends, fly around the world, go on holidays, go to restaurants, gyms, the cinema, sport events etc. In normal recessions, despite the economic dip, most people go about their daily business much as before. Almost all products and services are still available to buy in the normal way.

There is a mountain of evidence that, in normal recessions, brands that maintain or increase advertising spend relative to competitors typically benefit from a long-term increase in market share after the return to economic growth. Brands that reduce or stop their adspend typically lose share relative to those that don't.

The current pandemic-induced recession is different, unique, with no lessons from history to guide advertisers. What should a business spend on advertising if they are not able to sell at all? For some major categories (eg. travel, live events..) enforced restrictions have reduced the ability of companies to sell to zero, or close to zero. For many others, sales have been dramatically reduced. A handful of businesses (Amazon springs to mind) are thriving. So, what should businesses spend on advertising during the pandemic?

Byron Sharp, in his book How Brands Grow, argues that – to grow - brands need to maximise their physical and mental availability. This pre-supposes that growth is a possibility. During this recession, for many businesses, growth may not be an option and survival may be the goal. Limited resources are more likely to be spent on staff than on advertising. However, one thing is certain: the world will eventually recover from the pandemic, either through population immunity or as a result of a successful vaccine. So, the pandemic is temporary.

Businesses with no/low sales need to consider whether they need brand visibility of some sort, whether through advertising or by other means, to ensure that they remain salient and 'available' in the minds of consumers when the pandemic and its recession come to an end.

The internet provides many opportunities for businesses to build low-cost visibility through websites and social media. A good example is the Dettol **<u>#HandWashChallenge</u>** on TikTok, now with over 125 billion views.

# **ON RESEARCH**

16 October 2020



When I present research data, occasionally some people say to me "is that data behavioural or declarative?". When I say "declarative" their eyes glaze over, their ears stop working, I lose their trust. They don't believe that research can be based on asking people anything. They don't believe that people can answer questions accurately. They only believe in data based on internet clicks. They believe that clickstream data is the only reliable data to inform about human behaviour.

I am the first person to agree that humans are biased, that our decisions are driven by a largely subconscious brain, that a lot of what we say is not what we do. However, dismissing all declarative research is not wise. There are many questions, and question methods, that are likely to elicit accurate responses from respondents. Along with a robust sample size and representative sample of the intended population, declarative research can be a terrific, and often the only, way to reveal human motivations and behaviours. Remember that most of our lives, and our interactions with brands, exist offline - so clicks can only describe a small part of all that we do.

Declarative research, by asking a sample of respondents to answer questions (typically using self-completion online questionnaires), has its pitfalls, but most of them are well known and there is a large body of best practice method and questioning technique for researchers to follow. Common sense is also required (e.g. don't ask people things they are unlikely to be able to answer accurately, don't ask them to overthink, avoid known biases). There are also many ways to validate declarative research, to prove its accuracy.

Behavioural research, sourced from clickstream data, also has its pitfalls, with much less established best practice to guide researchers. Clicks are useful in many areas – informing us about online behaviour – but they are often used incorrectly and misleadingly. One example

is in the area of multi-touch attribution where clicks have been used to attribute the effectiveness of different online channels on the sales of a product or service. The assumption is that clicks describe all the possible influences on sales when, in reality, they are likely to account for only a part (often a small part) of the many factors that impact sales. Factors such as all the offline brand contacts and other offline influences on our choice of a brand. Failing to account for the full range of influences on sales can lead to very wrong attributions.

Declarative and behavioural research both have their uses. Understanding their boundaries, limits, and scope of use is vital when deciding which is the best approach to deploy.

### ON BRANDS AND MASS MARKETING

23 October 2020



In the rapidly growing age of e-commerce and algorithms, are brands and mass market advertising necessary for consumers and businesses anymore? Or is the only 'brand' needed – trusted, credible, famous – Amazon? Do consumers need brands to choose products and services, or do they just need to select from a trusted e-commerce platform, without any need to be previously aware of the brand they are buying? Algorithms can match products to the needs and desires of the consumer. Reviews do the rest. No need for brands. No need for advertising. No need for mass marketing. Is this true?

Consider what you buy, and why you buy it. How much of your shopping is of brands that are already familiar to you, how much is of products or services you had never previously heard of. Think about groceries, appliances, cars, mobile phones, shoes, clothes. How important is brand familiarity? Without doubt, the great % of what you buy is branded, with advertising playing a part in your prior experience of most purchases. Online purchases are an increasing proportion of what we all buy, accelerated by the pandemic, but this does not mean that branding is no longer relevant, in fact branding remains vital for business success.

Here are two sides of the argument:

 Scott Galloway, a professor of marketing at the New York University Stern School of Business, <u>recently argued</u> that "There's the CMO who came from the world of Don Draper and wants to spend money on marketing... uses the term 'brand' every other sentence and wants a bigger budget for marketing and advertising. I don't think those CMOs last. The CMOs who are thriving are the ones that say 'I'm your link to

the market, I understand strategy, and I am informing every piece of the supply chain. I understand where we're getting products and services, where we can save money, where we lose money."

Shann Biglione, head of strategy at Publicis Media in New York, <u>counters</u> Galloway's view by arguing "Advertising is a competitive edge. It allows to be seen relatively more or less than the competition. We've seen this in regulated markets where access to broadcast media was prohibited – eg smoking brands in many countries, movies in France, condoms in China. In none of those cases did we see the importance of brand reduce – quite the opposite. Brands may revert to different tactics, but the strategic value of a strong brand will likely survive. Go to China, and watch a brand like Three Squirrels, who have become one of the largest food brands in the country simply by repackaging wholesale nuts at a premium under a cute brand umbrella and some fun little bits of packaging. An explosive growth that all happened on – wait for it – e-commerce websites! The very tools that are supposedly reducing the value of brands."

Brands will continue to be important for consumers and businesses, most likely into the distant future. How brands are created, the contacts and experiences that we have with brands over time, is changing and will continue to evolve. However, the value of a brand reaching large numbers of people (particularly non-buyers), building associations and familiarity, however that is achieved, will remain vital to its success. The use of advertising through media channels, reaching large numbers of potential buyers (eg. mass marketing), will continue to be a valuable tool for businesses to help build their brands.

# **ON LOOK-ALIKE MODELING**

30 October 2020



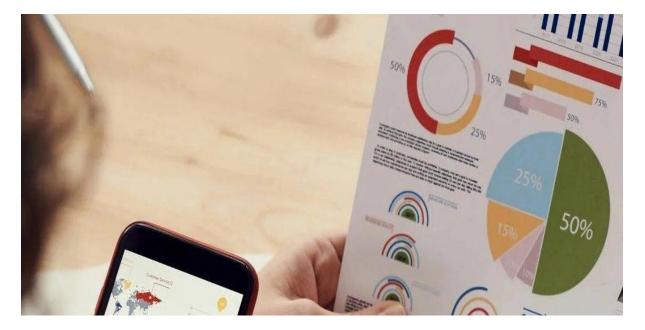
Let's say you want to grow your business by increasing the penetration of your brand. You decide to do this by targeting people who buy in the category but do not buy your brand – your non-buyers – with promotions they are likely respond to. You are a packaged goods manufacturer who wants to target non-buyers online. One of your options may be to obtain a sample of data about your non-buyers that you might get from a retailer (from loyalty card data) or from a research company that has a panel of people who scan their purchases each day. Either way you start with a sample of people that you wish to scale up to target online, as non-buyers of your brand, with promotions. You want to avoid targeting existing buyers with promotions as they are more likely to buy your brand anyway (and more likely to respond to promotions), so reaching them will only reduce the margin of your brand. Scaling a target of non-buyers is the objective. Look-alike modeling is a technique that you might consider to do the scaling from a small sample to a large group of people to target online. But, does it work?

Look-alike modeling works by taking the online clicks of a sample of people and mathematically selecting a much larger group of people based on the similarity of their online clicks. So, for example, if my brand is Pepsi and I want to target non-Pepsi buyers then I need to look at the clicks of a sample of Pepsi non-buyers and then find lots more people with similar clicks. Theoretically I would then scale to many more non-buyers of Pepsi. But what if the clicks of non-buyers of Pepsi are similar to the clicks of buyers of Pepsi, so the scaling ends up with a mix of buyers and non-buyers, and I end up targeting my promotions to my buyers as well as non-buyers? This would defeat the objective of targeting non-buyers and potentially reduce the margin for the brand.

In packaged goods (and in most other categories), the buyers of a brand in a category are similar to the non-buyers of that brand who buy other brands in the category. Typically, half of the buyers of any brand in a year will be buying a different brand the next year. Buyers of brands in most packaged goods categories are similar to each other. They are also similar in their online behaviour. The online clicks of non-buyers of a brand are similar to the clicks of the buyers. So, look-alike modeling typically fails to effectively isolate non-buyers of brands. In fact, it can end up over-targeting existing buyers because of a lack of discrimination between online behaviours of buyers and non-buyers.

# **ON SHARE OF SEARCH**

6 November 2020



There has been quite a bit of chatter lately amongst marketing academics/experts about share of search and its link to market share. This is not new. Over ten years ago a team of analysts showed me how a brand's share of search in the automotive sector could be used to predict its market share – accurately, in every country. Subsequently the team proved the same case in other categories.

Recent <u>chatter</u> argues that share of search should replace share of voice as a metric for setting budgets and predicting growth.

The use of 'share of search' data to predict market shares is likely to be possible in some categories, particularly where search is a major activity in the process of deciding what to buy. It is less clear whether the method can be used for low interest, low involvement packaged goods categories, particularly where category boundaries (substitutable products at point of purchase) are not easy to determine.

A question is whether brand owners should specifically target growth in share of search in order to grow share of market. The direction of causality needs to be established. Do brands with high market share simply have more buyers, and therefore more people searching for their brand, than small brands with fewer buyers? Causality could be one way: higher market share leads to higher share of search, not the other way round. This is likely to be true for some (lower interest, lower involvement) categories where search is not much used to find out about and compare and buy products. But in others, where search is a key part of the buying process – automotive, finance, electronics etc. – it is likely that share of search can be used to predict share of market....with a lag between searching and buying. For these

categories, increasing share of search could be a sensible objective, and a metric for measuring marketing success.

Excess share of search (ESOS), where a brand's share of search is greater than its share of market, is being touted as a possible way to predict market share: brands with relatively high ESOS will gain market share versus those with relatively low ESOS. In 1990, John Philip Jones, a professor at of Public Communications at Syracuse University in New York, <u>introduced</u> the concept of excess share of voice (ESOV) and The Jones Curve (or Advertising Intensiveness Curve), a way of examining the relationship between ESOV and future market share. At the time this method was largely applied to packaged goods categories. An equivalent curve today, that shows the relationship between ESOS and market share, could be used to predict market shares in categories where search plays a big role in the purchase process.

# **ON AUDIENCE MEASUREMENT**

13 November 2020



Advertisers need to know the audience to their ads. Knowing the size of the audience to ads, and its composition, is fundamental for assessing the value and performance of advertising. It is fundamental for planning and buying advertising.

There are two elements to audience measurement that form the foundation of a successful advertising environment for media owners and for advertisers and their agents:

- A single agreed definition of what constitutes opportunity to see or hear advertising that is applied equally, without variance, for all companies selling and buying ads. This ensures a level playing field to assess the relative worth of media providers and the advertising placed with them.
- 2. A single, and independent (of buyers and sellers), source of OTS/OTH data that provides buyers and sellers of advertising with a universally trusted and credible currency.

These elements have been successfully in play globally for almost 100 years, delivering largely credible and trusted audience metrics for planning and buying advertising in the five traditional media: TV, print, outdoor, radio and cinema. In most countries a system of joint industry committees (sellers + buyers + agencies) has agreed and managed the appointment and funding of independent research contracts to deliver industry measurement of advertising audiences. This approach has ensured a relatively harmonious trading environment in these media.

This does not mean that measurement of audiences for traditional media has been without its challenges and issues. Nor does it mean that the audience measurement has delivered

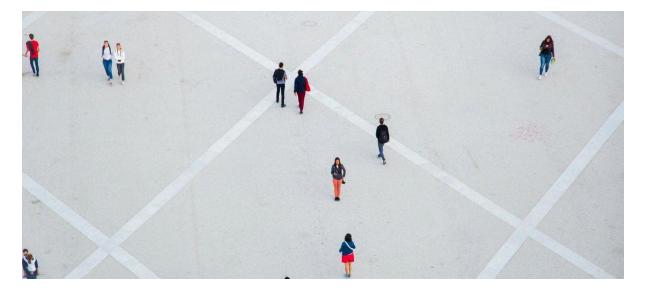
wholly accurate audience data. However, what matters is that the audience measurement has been agreed by all parties, that the data adequately reflect the relative delivery of audiences across media providers within each medium, and that the data provide a level playing field for trading ads. This approach has ensured trust between buyers and sellers.

The arrival of the internet 26 years ago created a new digital advertising environment that brought with it the promise of an entirely new, altogether better, way to measure and plan and buy advertising audiences. The promise was simple: every person using the internet could be measured, every ad they were exposed to could be measured, advertisers would know the audience to their ads accurately for the first time. Today the size of the internet medium eclipses every other medium; in advertising spend terms it is already 80% larger than traditional TV. However, despite the passing of a quarter century, debate around the measurement of internet audiences remains in turmoil, with lack of trust between buyers and sellers. There is no single agreed definition of OTS/OTH, there is no single independent source of OTS/OTH data, the playing field is not even across providers, control over the trading currency sits firmly with the media owners. An environment where media owners grade their own homework, without independent verification, inevitably leads to loss of trust.

Because of the immense (and fast growing) global size and power of the largest internet players, each with their own tightly protected walled gardens, the path to a fully trusted trading currency for internet advertising audiences is neither clear nor likely to be swift. This has led advertisers to increasingly rely on their own first party data – the clicks that occur on their own digital properties – for assessing the effectiveness of their online ads, and this has skewed online advertising to be direct response, promotional, with solely a short-term goal. Are we in a new era of direct response advertising? Does this reduce the potential for businesses to grow their brands? There are huge technical, financial, political and commercial barriers to progressing a globally agreed standard for measuring and trading internet audiences. Finding the way through requires all parties to compromise but not to lose sight of the fundamental elements of a successful trading environment: a single agreed definition of the advertising audience, and independent measurement or verification of that audience.

# **ON CONSUMER JOURNEYS**

27 November 2020



What is a customer or consumer journey? Ryte Wiki defines it as "the customer's path, via touchpoints, to their decision to purchase an item."

Consider the purchase journey for your toothpaste brand. My toothpaste 'journey' includes seeing the tube of toothpaste twice each day when I brush my teeth, squeezing the tube and slowly heading towards the next purchase. Every few weeks I buy another one or two packs in my local shop – the decision to buy occurs when I have nearly run out and I barely think about the purchase process, just going to the shop and buying a new pack of the same brand of toothpaste. Apart from this I very occasionally see my brand of toothpaste in TV and print ads. I don't ever remember seeing my brand online, whether through website ads or social media or on streamed video sites, and I never see it in search because I never search for toothpaste. My toothpaste purchase journey is simple, with the only touchpoint on the decision to purchase being the shelf in the store and my repetitive use of the brand each day.

Consider a different purchase journey, this time for a holiday. I normally spend quite a long time online searching for and comparing destinations, car hire and flights. This can go on, iteratively, for some days, occasionally weeks. Almost all my holiday purchase journey touchpoints are online, mainly using search and websites of travel aggregators, booking sites, airline sites, car hire sites, and quite a lot of general travel destination sites. It is mainly an online journey.

There are many different journeys for all the variety of product and service brands that we buy. For the great majority of packaged goods categories, the purchase journeys for most people are offline and simple. For many other categories the journeys can include a mix of online and offline touchpoints. For a few (mainly e-commerce) categories the journeys are almost entirely online. Everyone has their own unique and generally non-linear purchase journey for each brand that they buy.

Here is another way to think of the consumer journey, not as a path but as a type of experience that you have with a brand. Consider these six types of brand experience:

- 1. **Unaware of the brand**: you have never heard of it. This is the experience type that you probably have with most brands. If you think about it, you have probably not heard of most of the brands that exist. For most brands, the first task on the path to purchase is to make people (as many people as possible who buy in the category) aware of the brand. If you have not heard of it, you will not buy it. Creating awareness requires deep knowledge of potential consumers and finding creative ways to tap into human emotions, layering memories and associations about your brand over time.
- 2. Vaguely familiar with the brand, but not a buyer of it. This is the experience that you have of most of the larger brands in categories that you buy in. You are probably aware, to a limited extent, of the larger brands of toothpaste, cars, mobile phones, etc. that you don't buy. In many categories you will be buying brands habitually, often as part of a routine, with very little thought. Brand managers need to find ways to bring their brand to the front of your mind when you next buy in the category. They need to get you to consider their brand.
- 3. Considering the brand, but not yet a buyer. This experience occurs when you are close to the moment of purchase in the category. Brands need to spring to mind when you think about your next purchase. You may have noticed your gums bleeding when you recently brushed your teeth and a toothpaste brand that tackles gum problems might spring to mind. An ad may have been the cause. Brand saliency the brands that spring to mind at the time of category purchase is the brand manager's goal for this group of people.
- 4. Just bought the brand. This is the goal for every brand manager a sale! At this moment your brain trips a switch, without any conscious thought you suddenly change your attitude to the brand you have just bought. You pay much more attention to it, wherever and whenever you see it. You become biased in favour of it, and biased against any other brands that you didn't buy. The job of the brand manager now is to tap into this peak in positivity, reminding you that your decision was the right one. This is the moment when you are most receptive to cross-selling and up-selling. A moment of opportunity.
- 5. **Using the brand**, between category purchases. Most experiences of brands between purchases are based on the occasional (daily for some brands) use of the brand,

driving the car, brushing your teeth, using your phone, and so on. These experiences define, to the greatest degree, your sub-conscious memories of the brand. Brand managers need to find ways to maximise visibility of their brand for its buyers, not only through packaging but by finding ways to add to the experience, whether online or offline.

6. **Re-considering the brand, as an existing buyer of it**. At the moment of category purchase you are most likely to default to the brand that you have been using most recently. In many cases, habit will dictate what you buy next. However, there are many reasons why you may re-consider what you buy. In fact, in packaged goods, about half of all buyers of a brand in one year will have switched to another brand the following year. The task for brand managers is to reinforce habits amongst existing customers, and break habits for non-customers.

Consumer (or customer) journeys are not easily defined linear paths, with points of brand contact that occur one after the other in a definable sequence. The route to brand purchasing is not a predictable or measurable path. Everyone has unique brand contacts over their lifetime that influence which brands they buy, some of these are immediately effective but many contribute cumulatively over time. Too many consumer journey 'maps' consider only a few recent contacts that may account for only a fraction of the influences on brand choice. An alternative approach is to measure the mutually exclusive experience stages or types of experience that people have with a brand and to focus marketing efforts on these groups of people, determining the optimal balance of activity for each group depending on the unique circumstances of each brand.

### ON THE NEED TO RECLASSIFY ADVERTISING

4 December 2020



Media classifications for advertising need to be redefined. Currently most reports split ad spend into seven media: TV, newspapers, magazines, radio, outdoor, cinema, and digital (or internet). The issues with this classification are easy to define:

- The first six media are defined as 'analogue' non-digital media when, in fact, most of the media providers in these groups have significant and growing digital revenue from internet channels that they either own or are included in. Almost all analogue media providers are becoming digital.
- 'Digital' is not a medium, it is a catch-all description for all media types and channels that are delivered via the internet.

However, while this classification no longer makes much sense, defining new meaningful and measurable media types for ad spend is not simple for a few reasons:

- Media providers no longer operate within a single media type. They increasingly generate revenue from other digital services including e-commerce. Isolating advertising revenue from other sources can be difficult/impossible.
- The definition of what constitutes 'media' is no longer straight forward. Is Google a media provider or a tech platform? What about Facebook, Twitter and Amazon? If Google is a media provider, into which buckets can/should its' ad spend be classified?

• It is not currently possible to accurately source digital ad spend data, either in total or sub-classified. This is because the ad revenues of digital providers and platforms are either not reported or not classified in a standard way, and digital ad revenues are not independently measurable (accurately) or verifiable.

So, while current classifications are making less sense, there is no obvious alternative. Digital is already over 50% of all adspend worldwide and will grow within only a few years to almost 100%. All ads, at least almost all, will soon be digital. A new group of standard classifications for digital adspend, that can be credibly and accurately reported and verified, is now needed.

Media types for digital advertising that are often named include paid search, paid social, video, display, mobile/in-app, e-commerce, SMS/MMS, email, banners, rich media, sponsorships etc. A potential issue with these definitions is that they can overlap (eg. video ads are a subset of display ads) so can lead to double-counting digital ad spend. More importantly, due to political, technical, financial and commercial reasons, there is little collective will to redefine ad spend classifications. At some point the charts that show splits of ad spend by six analogue media and one 'digital' medium will be so absurd that they may disappear entirely. What then?

### **ON MAXIMISING SALES FROM ADVERTISING**

11 December 2020



One of the great opportunities of the digital age is to use machine learning (ML) to increase sales from online advertising. The opportunity is for machines to 'learn' from a closed loop of inter-dependent data, as described below, to adjust elements that cause sales growth.

Given the right data, ML algorithms can be tasked to iterate four components within a closed loop, fine-tuning each individually and in combination to achieve an improved sales outcome. Using algorithms, machine adjustments can be made to each of the following:

- 1. Creative: the ad, its messaging and display elements.
- 2. Media: the contextual (including editorial) environment that the ad appears in.
- 3. Audience: the people exposed to the ad.
- 4. Point of sale: the contextual environment where the product or service is bought.

If the machine task is to increase sales for a fixed or fluid amount of advertising money, with the ability to adjust algorithms that can 'see' the sales effect of the four components above, machines can steadily improve ads, the context surrounding ads, the audience exposed to ads, and the context surrounding the purchase. This dynamic machine learned loop can maximise sales from advertising.

However, be in no doubt that machines cannot 'learn' or be 'intelligent' (in the sense that we understand as humans), but they can iterate human-designed algorithms that can lead to improved results for defined tasks set by humans. The human element, setting components and boundaries and rules, dictates the level of success as much as the machine.

A vital ingredient is to embed a structured approach for continuous testing of the components (individually and in combination) within the loop. This requires significant

human intervention to define which elements the machine has control over, and the scope of that control. Taking ad creative as an example, which ad message elements and display options can the machine iterate? Can it change copy, colours, logo positions, video components, language, etc.? Each of these needs to be human defined and the boundaries of control for adjustments also need to be defined. The structure for testing adjustments must additionally be determined, with method for testing to ensure isolation of signal from noise.

Achieving control over the closed loop, with all four components tracking and feeding ML in real time, is an immense challenge. Most companies have control over only one or two of the components, dependent on others for the remainder. However, without direct line of sight from advertising to sales all bets are off. Amazon is currently one of only a few companies in the world that has control over all four of these elements within its own platform, while also reaching high proportions of the population.

Transforming business for the digital age is the focus of most boardrooms today. In addition to control over the product/service offered to buyers, which historically was the primary focus, the new challenge and competitive arena is to also control all intermediate steps through to purchase, harnessing the full loop of data to increase sales. When it comes to advertising, this means control over the creative, media, audience, and point of sale.

### ON CORRELATION AND CAUSALITY

18 December 2020



Data scientists are always on the hunt for patterns in data, particularly where there is evidence of causality, for example showing that factor A causes outcome B. Sometimes this is simple: we all know that higher temperatures in the summer cause higher ice cream sales, and lower temperatures in winter cause more colds. However, correlation does not infer causality. While there may be correlation where causality exists, often there is correlation but no causality. Common sense is the first filter: is causality likely (or just co-incidental correlation) and, if the answer is "yes", what is the likely direction (possibly bi-direction) of the causal effect? The next thing is to consider why there is causality. It is worth thinking about the following:

- Does A cause B, or does B cause A, or is the causation in both directions, possibly with one factor having a greater effect than the other?
- Is there another factor C that is causing A and B to be correlated?
- Does A does cause B but only so long as D happens?

• Is there is a chain reaction, for example where A causes E, which then leads E to cause B (but you only saw that A causes B from your own eyes)?

In 2011 Google released a very useful free tool called Google Correlate. This tool allowed users to enter a search term to discover highest correlating search terms over time – terms with a search pattern that most closely matched the search pattern of the entered term. Often this threw up fascinating correlations, many co-incidental and unlikely to be causal, but also others that were not immediately intuitive but, on consideration, could be causal. These were gold dust for further exploration. The tool also allowed users to draw their own pattern to discover search terms that most closely matched that pattern. This could be used to find out rising and falling trends. Extremely useful. Unfortunately, Google decided to close Google Correlate in December 2019 due to "low usage". Given its high value to data scientists, and the many potential beneficiaries around the world, there is good argument to ask Google to bring it back.

There are various ways to determine causality. One way is to use statistical modelling, for example econometrics or Bayesian modelling, to mathematically determine likely causality. Another way is to use A/B Testing, a controlled experiment that is well suited to the digital environment to determine, through iterative testing, which variants of an ad or web page have the greatest effect. A/B testing can be automated in a closed loop, using machine learned algorithms, and can steadily improve outcomes (often on a diminishing return curve).

# ON THE SHARE-OF-SEARCHING APP AND ITS VALUE FOR MARKETERS

19 January 2021



This week Croft Analytics has launched <u>Share-Of-Searching</u>, an app that can be used to chart Google search volumes and share of search trends for up to 40 brands (or other search terms) back to 2004 in any country. **You can access the app** <u>here</u>.

This blog post explains more about the app, the search data it uses, and the value of share of search data for marketers.

#### THE DATA IN THE SHARE-OF-SEARCH APP

The Share-Of-Searching app sources data directly from Google, with trends in search volumes for any search terms back to January 2004. These data come with an important caveat: they are based on a **random sample** of search requests made on the Google search platform. This means that each time the sample is taken the results can be slightly different. The larger the volume of the search data the smaller the variation in the sample results. This means that the data is better (more robust and reflective of the universe of all Google searches) when looking at search terms that have higher volumes of search.

Google does not publish trends in actual search volumes, instead showing an index of the relative volume of search for each search term, indexed against the term that attracted the

highest volume in any of the reported days/weeks/months. This volume is reported as 100 with other reported volumes indexed against the volume for that search term on that date.

Searches on the Google platform are categorized by Google into a standard set of macrocategories and sub-categories. This (very helpful) categorisation means that you can contextualise the volumes for a search term to the category you are interested in. For example, you can see search volumes for 'Orange' in the 'Food & Drink' category and separately in the 'Internet & Telecom' category. You can also filter results by country.

Having retrieved the index data on relative search volumes for a list of search terms, the app calculates share of search data for the reported days/weeks/months and for the whole period.

A final note on the data: whenever looking at search data it is important to consider the likely reasons that people may have for entering a particular search term in Google. When considering searches for brands, is it likely that the reason for searching is because people are interested in buying the brand? Or are there other possible reasons for the search (for example because the brand is in the news) that may skew the searching away from purchase interest? Purchase interest searching varies by category. Some categories, such as cars and financial services, are more likely to have searches tied to purchase interest than other categories.

# THE VALUE OF SHARE-OF-SEARCH DATA

There is a large and growing body of evidence showing, for many categories where people search for brands they might buy, that there is a close and predictive relationship between a brand's share of category search and its market share. For example, share of search for car brands can be used to predict new car sales for each brand in a few months' time. This is also the case in lots of other categories, particularly those where search plays a significant part in consumer consideration and comparison of available brands, for example financial services, apparel, electronic goods, travel, telecoms, retail, and utilites.

Here are some links to various presentation, articles and videos that demonstrate the value of share of search data for marketers:

- Presentation: <u>The most important metric you've never heard of</u>, James Hankins, Nov 2020
- Article: The most important metric you've never heard of , James Hankins, Aug 2020
- Video: Share of Search as a Predictive Measure , Les Binet, Nov 2020

- Presentation: <u>A New Way To Track Consumer Demand</u>, Les Binet, Aug 2020
- Video: <u>A New Way To Track Consumer Demand</u>, Les Binet, Nov 2020
- Article: <u>Why marketers should embrace Share of Search as a metric</u>, WARC, Aug 2020
- Article: Share of Search, your moment has arrived , Kantar, Oct 2020
- Article: <u>It's time for 'share of search' to replace 'share of voice'</u>, Mark Ritson, Sep 2020

# USING THE SHARE-OF-SEARCHING APP

The Share-Of-Searching app is free to use for two weeks and then requires a £500 payment to unlock 12 months use. You can quickly and easily retrieve search trends spanning any period over the last 16 years for up to 40 brands (or other search terms) filtered by category and country. The app includes drop down boxes for selecting category, country, and start/end dates for the search period. Users can enter up to 40 brand names as a list which is then used to retrieve the index of search volumes from Google within the selected country, category, and search period. The app generates four charts of these data:

1. Trend in Search Volume: trend in the volume of search for each search term (shown as a volume index).

2. Trend in % Share of Search: trend in the % share of search for each search term, shown as a line chart.

3. Trend in % Share of Search (stacked bar chart): trend in the % share of search for each search term, shown as a stacked bar chart.

4. Total % Share of Search (bar chart): the total % share of search for each search term across the selected period

Users can export the charts to PowerPoint and the search volume and share of search data into CSV files that can be loaded in Excel for further analysis, for example to compare market share and share of search.

The Share-Of-Searching app is not limited to exploring brands, you can enter any search terms. For example, try entering:

• Trump, Biden

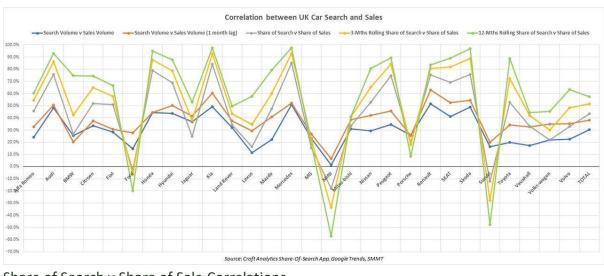
- Hybrid, Electric, Diesel (select 'Autos & Vehicles' as the category)
- Environment, Climate, Sustainability
- USA, China, UK, Germany, France, Italy, Spain, Australia, Canada, India, Russia, Japan

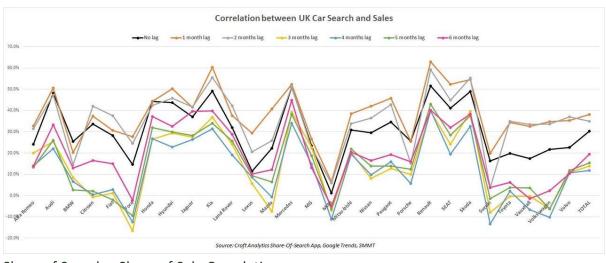
# ON SHARE OF SEARCH V SHARE OF SALES IN THE UK CAR CATEGORY

29 January 2021

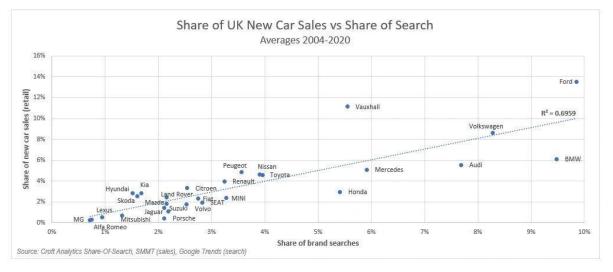


I have been digging into UK car data over the last 17 years to explore the link between Google search volumes and new car registrations. Is there a predictive link between car searching and subsequent sales? In summary, the relationship between share of search and share of sales is variable by car brand. The data for several brands suggest a strong link between search volume and sales (eg. Mercedes, Audi, Kia, Skoda), while the relationship for other car brands appears to be low (eg. Ford, MG, MINI, Porsche, Suzuki).





Share of Search v Share of Sale Correlations



## Share of Search v Share of Sale Correlations

I have looked at trends in monthly UK sales (new car registrations) and share of sales for 28 car brands compared to trends in search volume and share of search for the same brands. You can download an Excel sheet with the monthly car registrations and search data (and the analyses I have made so far) back to January 2004 <u>here</u>. Use the tabs and scroll down and right to see the extent of these data. The sources are:

- 1. Monthly UK new car registrations for 28 car brands from the **SMMT site <u>here</u>** back to January 2003.
- Monthly UK Google search volumes for the same 28 car brands from the Share-Of-Searching app <u>here</u> back to January 2004

Comparing volume of car brand searching with volume of new car registrations from Jan 2004 to Dec 2020 reveals the following:

# CORRELATION BETWEEN MONTHLY SALES (NEW CAR REGISTRATIONS) AND SEARCH VOLUMES

- On average, across all 28 brands, the correlation between the monthly volume of new car registrations and monthly search volumes is low at only 30%, but with a lot of variance in the correlation from brand to brand. The lowest correlation is for MINI at 1% and the highest for Renault at 52%.
- Lagging the correlation by one month (comparing search one month ahead of sales) the average correlation goes up but is still low at 38%. Again, although correlations increase for 26 of the 28 brands, there is a lot of variation with the lowest for Suzuki at 20% and the highest for Renault at 63%.
- Lagging correlation beyond one month results in falling average correlations.

# CORRELATION BETWEEN MONTHLY SHARE OF SALES AND SHARE OF SEARCH

- On average, the correlation between monthly share of sales and share of search is 43% but with a lot of variance: the lowest correlation is for Ford at -3% (this suggests that a lot of Ford searching is not related to purchase) and the highest for Mercedes at 85%.
- Lagging the correlation by one month (comparing share of search one month ahead of share of new car registrations) results in a slightly lower average correlation of 42%, although seven brands had higher 1-month lagged correlations.
- Lagging the correlation beyond one month results in slightly lower average correlations.

## CORRELATION BETWEEN 3-MONTH ROLLING SHARE OF SALES AND SHARE OF SEARCH

• On average, the correlation between 3-month rolling share of market and share of search is 51%, again with big variation in correlations across the brands: the lowest for Ford at -7% and the highest for Mercedes at 93%.

• Lagging the correlation results in falling average correlations although for some brands the correlations increase.

## CORRELATION BETWEEN 12-MONTH ROLLING SHARE OF SALES AND SHARE OF SEARCH

- On average, the correlation between 12-month rolling share of market and share of search is 58%, with big variation in correlations across the brands: the lowest for Porsche at -6% and the highest for Kia at 98%.
- Lagging the correlation results in falling average correlations although for some brands the correlations increase by lagging the correlation.

This analysis suggests that, for some car brands, the volume of searching on Google reflects subsequent sales and that search levels may be helpful in predicting sales with a variable lag effect. For other car brands the relationship between search levels and sales appears to be weak.

# ON THE END OF THIRD-PARTY COOKIES AND THE RISE OF 1ST PARTY DATA

5 February 2021



Preservation of personal privacy and security, and how personal data is used by third parties, is a big issue for most internet users. It is also the issue that resulted in the EU's GDPR regulation in 2018 and California's CCPA in 2020. The next step towards a more secure and privacy-respecting internet is the phasing out of third-party cookies. Next year, Google will "deprecate" the use of third-party cookies in Chrome, the last of the main browser providers to block use of third-party cookies. In 2017, Apple's Safari became the first major browser to block third-party cookies by default, followed by Mozilla's Firefox in 2019. The impact on publishers and advertisers is the subject of this blog post.

# THE END OF THIRD-PARTY COOKIES

In August 2019, Google announced their Privacy Sandbox initiative, a set of open standards "to make the web more private and secure for users while also supporting publishers". Central to this initiative is the removal of third-party cookies from Chrome during 2022.

Third-party cookies do not belong to the owner of the site that the user is visiting. They are widely used by ad tech providers for cross-site tracking (web-wide) of individuals, and they play a big role in how ads are targeted and served on the internet. Removing third-party cookies, without a suitable replacement, runs the risk of dramatically reducing the ad revenues of most online publishers. A Google study, published in 2019, of 500 of the largest publisher web sites found that cookie-less traffic resulted in 52% less revenue for the publishers than traffic where a cookie was present.

Google's plan is to replace the use of third-party cookies in Chrome with FLoC, a new approach for targeting ads based on grouping users into interest 'cohorts' based on their browsing habits

# GOOGLE'S FEDERATED LEARNING OF COHORTS (FLoC)

Starting in 2022, Google plans to tap into the Chrome browser history for each user and apply machine learning to place people into groups alongside others with similar interests based on their browsing habits. All the data used to determine which groups someone is in will be processed and stored locally by the users' Chrome browser. Advertisers will be able to target these groups. Third parties will no longer be able to track and target individuals using cookie profiles. So, from 2022, Google targeting will be based on interest groups of people who visit similar sites to each other. This is Google's Federated Learning of Cohorts (FLoC) approach.

Using FLoC, ad tech companies can target the habits of large groups of people instead of the activity of individuals. Ad targeting can be based on what group a person falls into. Each FLoC group (cohort) will contain, at minimum, "thousands of people". As users browse the web their FLoC groups will be changed by machine learned algorithms that use their browsing history of visited URLs, content on visited pages, and "other factors". The inputs for the algorithm, including web history, are kept local on the browser and are not uploaded elsewhere — the browser only exposes the generated cohorts. Users will be able to turn off their FLoC visibility, sending a random FLoC to ad servers instead of one that describes their interests.

There may continue to be privacy concerns and issues with this approach as FLoCs could be used to augment first-party PII profiles with additional information about an individual's interest. There may also be issues relating to algorithm bias, discrimination, and fairness. Google is also prohibiting a number of 'sensitive' categories that fall within personal hardship, identity and beliefs, sexual interests, and access to opportunities.

Google claims that tests have so far shown that FLoC targeting is 95% as effective as targeting ads using third-party cookies. Trials of FLoC will start in March.

# THE RISE OF FIRST-PARTY DATA AND CONTEXTUAL TARGETING

The end of third-party cookies will result in a big rise in the use of first-party data for targeting advertising (as well as for other uses). First-party data, including first-party cookies, belong to the owner of the site that the user is visiting. For publishers, first-party data is all data associated with user log-ins (subscriber/user registrations and subscriptions) and user profiles and all first-party cookies that can be used to capture what people visit and do on their owned sites. Publishers can use their own first-party data to target

advertising for visitors to their sites based on the content that they view and the actions they take. Contextual targeting will grow rapidly from 2022.

The rise of first-party data may deliver benefits for both publishers and advertisers. Some of these could be:

- Less fraud, greater transparency and accountability.
- Greater user privacy and personal control over privacy.
- Greater brand safety.
- Less spam for users.
- Greater/easier compliance with regulation.

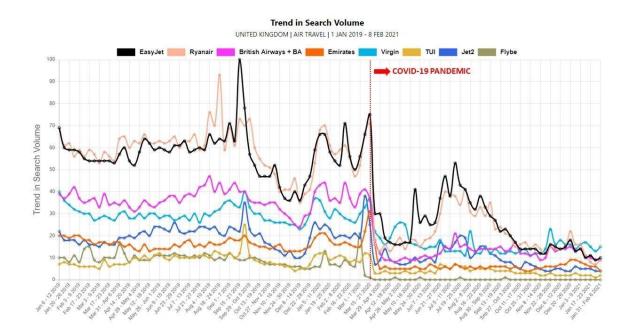
• Content improvement, a growing focus on premium content, a better and safer context for ads

# ON THE IMPACT OF THE PANDEMIC ON SEARCHING FOR AIRLINES

8 February 2021

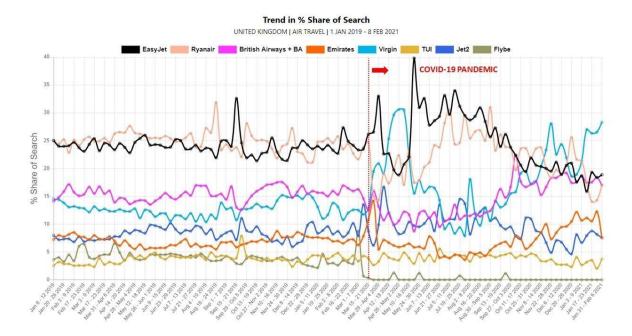


Here are two charts from the Croft Analytics <u>Share-Of-Searching app</u> that show what has been happening to levels of searching for airlines on Google in the UK over the last 24 months. These highlight the impact of the Covid-19 pandemic and travel restrictions on the sector. The first chart shows the trend in search volume (relative volume index) for the eight most searched airlines in the UK since January 2019:



On March 11th 2020 the World Health Organisation declared Covid-19 a global pandemic. From that date, airline searching fell rapidly. In the 47 weeks since then, there has been a 60% decline in UK searching for these airlines. One of the airlines, Flybe, ceased trading on

March 5th 2020. The decline in airline searching was rapid during the first lockdown but, as restrictions eased, search levels rose a bit (particularly for EasyJet and Ryanair) during the summer months last year. However, levels during this winter have fallen to an all-time low as the second lockdown and further travel restrictions have come to bear on the sector.



The second chart shows the % share of search volume for the eight airlines.

This chart shows that, while EasyJet and Ryanair gained share during the summer last year, subsequently their share has fallen. Conversely, Virgin has seen its share rise from a low of 8% in July last year to 28% last week. British Airways and Emirates have also gained share of search versus the low-cost carriers over the last six months.

Use the <u>Share-Of-Search app</u> to explore Google search trends since 2004, with side-by-side comparisons for up to 40 search terms. Charts of trends can be generated for many types of search: for brands, topics, celebrities, sports teams, politicians, countries etc. - any type of interest. You can filter results by country, category and date period. Take a look here at <u>shareofsearching.com</u>

# ON THE INS AND OUTS OF ADVERTISING TECHNOLOGY

12 February 2021



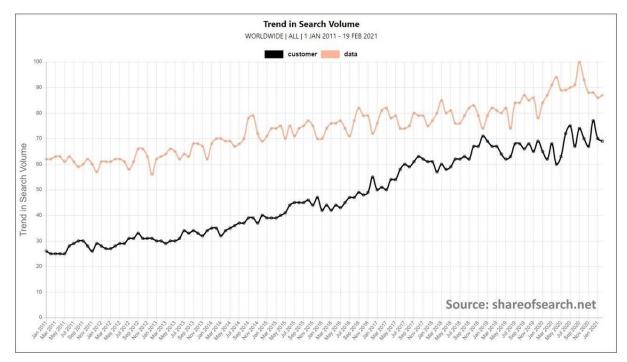
The ad tech sector is complex, rapidly evolving, and hard to understand fully – not just the technology, but also the power-plays, politics, stakeholders, regulators, and geo-political landscape. There are many ins and outs, and pros and cons.

Occasionally I come across an independent report that provides extensive and clear information about the ad tech sector – this is one of them: the Australian Competition & Consumer Commission's 'Digital advertising services enquiry' report, published in December 2020. The 222-page report "focuses on concerns identified by online publishers, advertisers, industry groups, academics and ad tech providers with the supply of ad tech services in Australia".

This report is particularly useful in its detailed explanation of a wide spectrum of relevant topics including the role and use of data, tracking and ad targeting, ad attribution, use of cookies, the ad tech supply chain, data portability and interoperability, first-party data, third-party data, privacy issues, and the impact of data use and regulation on businesses and consumers. The topics covered have relevance in all countries.

# **ON CUSTOMERS AND THEIR DATA**

19 February 2021



In pre-internet days, for most companies, data about customers were few and far between. Data about the end consumer (that could be stored and used for direct marketing) was largely limited to services such as utilities, airlines, telcos, and banks. Manufacturers had "customers" too, but they were intermediaries such as retailers and car dealerships. And those middlemen owned the rather patchy data about the end-consumer. For most packaged goods companies, the end customer was unknown. In those days, the CRM business was relatively small and niche, focused on cleaning customer lists and executing direct mail campaigns for the companies that had CRM databases.

Not anymore. The internet has spawned a vast array of companies claiming to track and optimise customer experiences, extracting their data to maximise loyalty and retention. Most businesses today are building customer databases sourced from online visits to their websites, social media, and ecommerce properties. This is a fast-growing trend. However, there are issues.

One problem is that customers are fickle. For packaged goods companies, about 50% of customers (the end buyers) disappear each year, and half of them are new customers. The leaky bucket syndrome is as big an issue today as it ever was. Customers are, simply, not loyal. They like to try other products. So, customer data tends to be transient when half of your customer base leaves to buy competitor products each year.

Another issue is that customers are complex, with brains that continuously filter a cacophony of offline and online noise. Influences on buying decisions come from many

areas that cannot be tracked online. Machine learned algorithms that rely solely on data from the internet can easily be confounded by untracked influences from the physical world (for example the sudden emergence of a pandemic). Additionally, most packaged goods are still sold through retailers who are as protective of their own data as ever. So, customer data tends to be partial and limited. Sourcing customer data from websites and social media pages tells only a small part of the story about the customer.

Ideally (from a customer data perspective), everything would be done online. Customers would be prospected online, they would buy online, they would be retained online. They would log-in and be happy to be tracked and sold personalised offers. The Direct To Consumer (D2C) world, so long enjoyed by the service sector, is now a possibility also for manufacturers. Removing the intermediaries is a trend. Unbundling inter-dependencies to go direct to the consumer, and enjoy the benefits of first-party data, is a growing strategic focus for brand manufacturers.

However, the great walled gardens of first-party data - Google, Facebook, and Amazon – continue to grow ever larger estates. As the owners of those "customer" data, they are as protective of their end consumers as bricks and mortar retailers ever were. In the world of first-party data, volume, the number of customers, is everything. Manufacturers, even the largest, simply don't have the wide and deep insight that Google or Amazon has into the lives of the millions of people logging-in and using their platforms every minute. And remember that a brand's customer data is limited to their customers, with no data about the arguably more important group of people that will grow the brand: the non-customers, the prospects. For those data, dependency on the platforms will inevitably continue.

# ON TALES FROM THE PAST: INTERNET ADVERTISING IN 1998

24 February 2021



Here is an article that I wrote for Media Week in October 1998 about advertising on the internet. Despite the passing of 22 years, several of the issues that I mentioned then have not been resolved. See if you can spot them. One thing I got completely wrong was my belief that these old issues needed to be fixed for growth in web advertising to keep pace with the wider growth of the internet. Ah, the benefit of hindsight.

#### Wired World, October 1998

The vast majority of British advertisers are not advertising on the Internet. Only a handful are prepared to spend even paltry amounts experimenting with the medium. Most advertisers are treating the Internet as an interactive Yellow Pages, publishing their own product sites, but there's little confidence in using the Internet to advertise them. Why? I think there may be many reasons for hesitance including the low numbers of Internet users, poor targeting, inadequate audience research, and limited creative possibilities.

Low audiences are possibly the main reason. Although Internet media owners tout page impression figures in the millions, the actual number of their readers is very much smaller. For example, although the Electronic Telegraph's ABC audit counted 7.3 million monthly page impressions, these originated from only 36,000 average daily readers - lower than the average issue readership of any title on the National Readership Survey, and only 1.5% of the average daily readership of the printed

version of The Daily Telegraph. While about 15% of the population in the UK qualify as Internet users, most go online infrequently, and with literally millions of sites to choose from (and thousands more being launched every day), it's not surprising that audiences to individual sites are low.

Targeting on the Internet is very limited, with sites often selected simply on the basis of their editorial context and publisher estimates of page impression counts. The great majority of media owners have almost no knowledge of who their users are, other than what they can glean from their site's log files, such as country of origin, name of the user's service provider and, for a few, the company they work at. For sites selling targeting based on user registration details there's the problem, maybe only perceived, of a large percentage of false and duplicate entries. However, until their accuracy is independently proved, advertisers are right to be wary of targeting promises based on registration details from free-access sites.

Strangely, for a medium that is already tracing the second-by-second activity of every user to every site, the Internet remains largely unaccountable. While audits can provide independent page impression and user counts, Internet sites still lack the essential data for advertisers to effectively plan, buy and evaluate their online campaigns - industry standard research into who those users are. Without an independent trading currency, advertisers have to rely on media owner figures and until such data exists, the unaccountability of the medium will continue to limit advertising growth.

Finally, the low and unreliable bandwidth of the Internet restricts what advertisers can do creatively. Small oblong banners provide relatively limited opportunity to attract attention and interest, while other advertising formats, such as interstitials, tend to use up precious bandwidth and risk annoying users through being too intrusive.

None of this detracts from my certainty that the Internet represents a major opportunity for advertisers in the future, possibly cutting across the entire marketing function for most. I am constantly reminded that the Internet is just a few years old (actually it was born in 1968), and that it's growing incredibly fast. I agree its getting faster and better. However, if online advertising is to keep pace with this growth there has to be equally rapid progress on the issues I've raised here.

Frank Harrison, Media Week, October 1998

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# ON THE JOYS OF BUSINESS TRAVEL

24 February 2021



Here is an article that I wrote for Media Week in June 2005 about my life as a frequent business traveller....

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# Travel narrows the mind of a media man

It's 4am in Singapore. I'm in The Gallery hotel – "invented by students" according to the proud receptionist. Very hi-tech, apparently.

Anyway, I get out of bed heading for the bathroom and, hey presto, all the lights come on as a movement sensor picks up my feet hitting the ground. Returning, I try to switch the lights off. No joy. All buttons pressed, lights still on. Must be the movement sensor. I lie motionless on the bed, praying that the bright lights turn off. Twenty minutes later, still motionless, they're beaming away. I fall asleep.

They're still on when I wake up. Boy, do I hate business travel.

I seem to be travelling all the time. In the past 12 months, I've accumulated more than 300,000 air miles. I'm a BA Gold Card member twice over. I've been everywhere, lounged in every lounge (JFK's the best by the way), and drizzled a thousand salads with BA's Lemon Spicy Dressing. The more I travel, the fussier I get.

Short haul to Europe is scary. I feel like a hard-nosed businessman clone. Ninety-five percent of business travellers are men in suits with BlackBerrys, thinning hair and mobile phones and they all have those roll along black cases that just fit in the overhead lockers... just like me.

Getting on the plane is always a bun fight – first come, first served on the locker space.

After landing, while taxiing to the gate, the cabin is always full of the "beepity-beeps" of just switched-on mobiles receiving those interminable text messages from local mobile networks. Everyone's checking their e-mails before we get off the plane. Then the mad rush to the taxi rank.

When it comes to long haul, there's a different but equally well-trodden pattern. After check-in, it's straight to the lounge, which is normally packed. Once again, very nearly all the people there are men aged 30 to 50. BlackBerrys and mobiles and laptops all round. On the plane, I've discovered that some business class seats are better than others. Seat 64A is a particular favourite on jumbos. It's on the upper deck, so has additional locker space between the seat and the window (for laptops, books, etc.) and, big bonus, its own little walkway that means you don't have to climb over anyone's legs to get to the loo. Arriving at the other end is again a bun fight, as everyone dashes to be at the front of passport control.

New York is always a race as passport control now involves fingerprinting and taking a photo of every non-resident every time.

My BlackBerry is both my saviour and the bane of my life. Saviour because, without it, I would return from every trip to an impossible mountain of e-mail. Bane because, like growing numbers of business travellers, it occupies much of my waking hours. It is in fact a brilliant invention, very cleverly designed to do just about everything you want it to do. I'm a big advocate. If you travel on business and don't have one now you probably will fairly soon – I notice that more and more travellers are getting "BlackBerried".

I've come across people who travel very much more than me and found that these people are the fussiest travellers of all. On arrival at Heathrow once, the man sitting beside me demanded to know what gate the plane was pulling up to. When he found out, he embarked on an outpouring of vitriol to the poor stewardess, complaining that he had to walk too far from the gate and why couldn't the pilot find a closer gate, and how he was a Black Card holder and spent five days each week flying around the world. Fusspot.

I'm heading in that direction.

Finally, I have to squeeze in a word about advertising to the business traveller. There is no more potentially captive audience than this niche consumer segment. I've found myself staring at the 3D Volvo TV in the lounge at Heathrow and JFK – several times. I've read the

BA inflight magazines from cover to cover – and looked at all the ads as they are all targeting me. I look forward to each new edition.

I read the ads on the long walkways at airports.

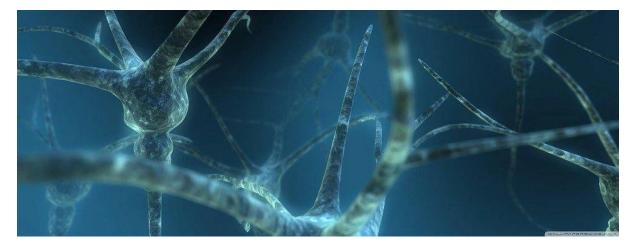
I read any texts I get on my mobile. I notice special promotions and displays in the departures lounges. Bottom line, I'm a sucker for all the relevant marketing going on at airports and on planes that is targeting me. But I still hate business travel.

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This article can also be viewed here

# ON OUR REDUCTION ENGINES AND THE NEED FOR DISTINCTIVE ASSETS

5 March 2021



Every second, your brain receives about eleven million bits of information from your sensory organs. 91% of these bits, ten million of them, come through your eyes. Another one million are signals from your skin. Your ears and nose contribute a further 100,000 bits each. And your taste buds send about 1,000 bits per second to your brain.

What your brain does with all these bits of information every second is quite incredible. It makes 100 billion unconscious operations to reduce them, filter them, process them, and finally, after about half a second operating mainly as a data reduction engine, it sends no more than **50 bits** of information to your conscious brain. Almost all of the processing of information by your brain happens outside your conscious notice, and most of your body's activities take place outside your conscious control.

Our brains are not stupid. They have evolved to use shortcuts that minimise the need to process the raw data they receive. These shortcuts include a 'brain directive' that makes us become habitual, to prefer routines, preferring things we do repeatedly, biased in favour of what we already know and biased against the unfamiliar. Our brains insist that we use memory cues to reduce the need for processing. As we get older, memory cues play an increasingly important role in our lives and our decisions.

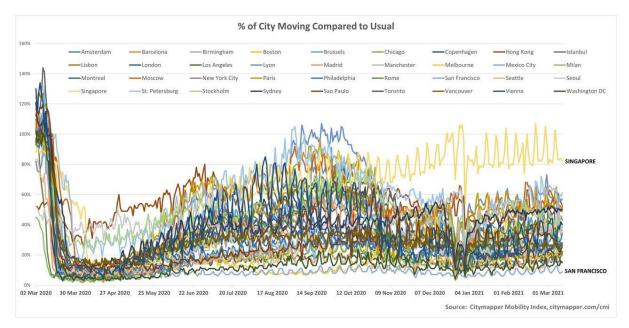
This is why brands (and anything else that depends on memory) need distinctive assets – memory cues for overloaded brains. Distinctive assets are Trojan horses for brains to smuggle the brand into our consciousness. They come in various forms – logos, jingles, shapes, colours, characters – but all have the same task: to build, through continuous repetition of the same asset everywhere, a shortcut for the brain to recognise the brand whenever it is encountered. Think of the Nike swoosh or the Coca-Cola bottle – distinctive assets that are instantly (after 0.5 seconds of tinkering by our subconscious brain)

recognisable. Instant recognition is the goal for the brand, for all potential buyers whenever and wherever they come across the brand.

Brands need to become habitual for their buyers, training circuits in brains that result in "automatic" use and purchase, without conscious interference. That is what our brains like, it is what they are tuned to do. Creating and maintaining a distinctive asset makes it easier for our reduction engine to surface the brand when we are at the point of purchase.

# ON THE IMPACT OF THE COVID PANDEMIC ON POPULATION MOBILITY

12 March 2021



While the pandemic has changed the lives of everyone on the planet, timing and impact levels have varied from country to country. One aspect has been the effect of restrictions on the movement of populations, with numerous lockdowns forcing millions to stay at home. Population mobility has been dramatically curtailed by the Covid virus. However, levels of mobility have varied throughout the pandemic depending on where you live.

The chart above, using data from the <u>Citymapper Mobility Index</u>, shows levels of population mobility each day over the last year for a number of cities around the world. The Index is calculated by comparing trips planned in the Citymapper app, by its millions of users, to typical (pre-pandemic) usage. The app measures use of public transport, walking, cycling, and other micro-mobility activities (but not driving). It provides a large sample that reflects general mobility level.

The chart shows that population mobility was at its lowest level globally in April last year, as the pandemic took hold globally, reducing movement to below 20% of usual levels in most parts of the world. Since then, levels of mobility have varied in most cities, rising and falling in line with the imposition and relaxation of government restrictions. For most of the world, population movement has remained below 50% of usual levels throughout the pandemic.

Singapore, however, is an extraordinary outlier, with remarkably high levels of mobility in the last six months. Population movement in Singapore has been 80%+ of usual levels, much higher than all other cities measured, and rising back up to pre-pandemic movement levels every weekend. At the other end of the scale is San Francisco - with about 10% of usual

mobility it has consistently been the city with the lowest level of population movement throughout the pandemic.

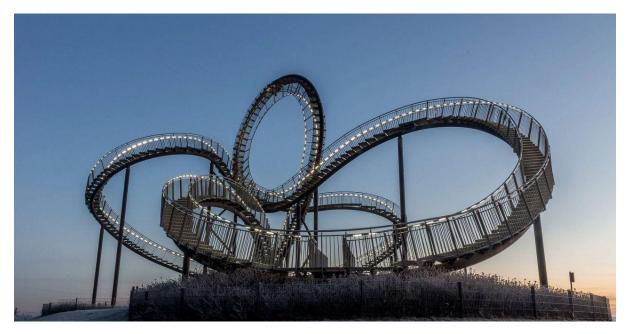
% of city	moving	compared to usual	
Week ending Sun 15th March 2020		Week ending Sun 7th March 2021	
Milan >	9%	San Francisco >	10%
Rome >	16%	Washington DC >	14%
Seoul >	42%	Amsterdam >	16%
Madrid >	46%	Los Angeles >	17%
Seattle >	47%	Seattle >	17%
Copenhagen >	54%	Lisbon >	20%
Hong Kong >	54%	Copenhagen >	21%
San Francisco >	57%	Boston >	22%
Barcelona >	61%	Chicago >	23%
Boston >	64%	Mexico City >	25%
Washington DC >	66%	Montréal >	26%
New York City >	67%	Toronto >	26%
Amsterdam >	68%	London >	26%
Vienna >	69%	Vancouver >	27%
Philadelphia >	70%	New York City >	27%
Brussels >	71%	São Paulo >	31%
Los Angeles >	71%	Milan >	31%
Stockholm >	73%	Philadelphia >	31%
Paris >	77%	Barcelona >	35%
Chicago >	78%	Birmingham >	35%
Vancouver >	83%	Manchester >	35%
London >	83%	Vienna >	37%
Toronto >	84%	Rome >	39%
Lyon >	86%	Seoul >	39%
Singapore >	86%	Melbourne >	40%
Lisbon >	87%	Brussels >	44%
Manchester >	89%	Stockholm >	44%
Montréal >	91%	Hong Kong >	49%
Birmingham >	91%	Istanbul >	49%
Sydney >	93%	Sydney >	51%
Istanbul >	93%	Madrid >	53%
Mexico City >	95%	Paris >	55%
Melbourne >	97%	Moscow >	59%
Moscow >	98%	Lyon >	60%
St. Petersburg >	101%	St. Petersburg >	64%
São Paulo >	104%	Singapore >	87%

The chart below shows mobility levels from a year ago compared to now -

The **<u>Citymapper Mobility Index</u>** is a terrific tool for tracking the impact of the pandemic on the mobility of populations around the world on a daily basis.

# ON CLOSING THE LOOP WITH FIRST PARTY DATA

26 March 2021



For those responsible for online content of any kind, editorial or advertising, one of the great tools to use - to find out what works best by determining cause and effect - is A/B testing. Unsurprisingly, use of A/B testing is growing fast as publishers and advertisers seek to raise levels of user engagement with their pages and ads.

A/B tests are controlled experiments involving an existing content layout (editorial/advertising) that is shown to a Control group of users, and a variant layout that is shown to a Test group. Users are randomly split (persistently) between the two groups. The process requires decisions on what to test (the hypothesis), the user sample size needed for a robust result (within a confidence level), the test period required to achieve the sample, and the outcome metric for the test.

A/B testing can be used to determine the effect of a wide range of content changes, such as:

- Editorial: copy, length, headlines, fonts, colours, layout, image, video, links etc.
- Advertising: ad copy, size, format, colour, font, image, video etc.
- Ecommerce: page layout, navigation, copy, offers, checkout, images, call-to-action etc.

An issue with A/B testing is that it can take a long time to discover content changes that make a predictive and significant difference (signal rather than noise). Many tests are cull-de-sacs, with lower or no discernible effects. When tests are run sequentially the discovery process can be slow and laborious.

A potential solution is to deploy machine learning that automates iterative and concurrent testing of content changes. For example, a font/colour change or copy/format change can be tested using a matrix of possible combinations. The automated system could iterate test combinations, and concurrently evaluate multiple tests through automated selection of user samples. This much faster approach can discover content change combinations that have significant predictive effects.

From an advertiser perspective, the best outcome metric for an A/B test is sales. Advertisers want to know the effect of editorial and advertising changes on their sales. However, this requires combining editorial + advertising + ecommerce into a single 'closed loop' system to determine the effect of context/ad changes on sales. To close the loop, the system needs visibility of users across editorial, advertising, and ecommerce environments.

As third-party cookies come to an end, look out for the companies best placed to use their own first-party data (customers with log in identities) to maximise the effect of combined editorial, advertising and ecommerce environments. Machine learning may soon discover new rules for how brands grow.

# **ON GROSS RATING POINTS**

16 April 2021



In the land of *tech stack storytelling* the tale of the emperor's new clothes is alive and kicking. Bandwagons are dangerous things, the lure of novelty drawing like moths to the flame, often without any sign of a band or a wagon. Eventually, belief in the wisdom of the growing crowd can cause collective blindness to reality. Hold this thought.

What do marketers need and expect from vendors of media? In an ideal world, they want to know the effect of money they spend with the vendor on the sales of their products and services. That way they can determine return on investment. However, without a media-owned 'closed loop' technology in place (see my last blog post) that can manage and measure context, advertising and sales (ecommerce), claimed effects of advertising on sales are often questioned estimates. There are too many confounding factors at play that are not in the control of the media owner. Marketers cannot expect media vendors to be accountable for sales if they are not also accountable for the product, its pricing, and its distribution (let alone extraneous influences such as competitors and the economy, and pandemics) – all factors that may have a much greater impact on sales than advertising. Which brings me to GRPs.

Media owners can control, and be expected to deliver, gross rating points and their constituent elements of reach and frequency. Advertisers buy audiences from media owners. Audiences are the currency of media buying. At minimum, media owners should provide a credible (independently validated) measure of the audiences they deliver for advertisers. A good long lasting metric that reflects the total audience exposed to advertising is gross rating points. However, this age-old audience measure seems to be waning in popularity, when its relevance for advertisers, particularly in digital channels, is more important than ever as third-party cookies disappear from the web. It is easy to be seduced by measures of clicks and clickstreams, forgetting that advertising works by publicising products and services to audiences, most of whom will not click but will be nudged by the advertising every time they see/hear it. For the great majority of the exposed audience, advertising works by nudging propensity to purchase over the long term. For a small minority there may be a click.

Advertisers should be able to know the reach of their advertising (the number and % of people that had the opportunity to see or hear their ad) and also the frequency of exposure (how many people had the opportunity to see the ad once, twice etc.). These building blocks of GRPs should be available for a wide range of audience definitions – at minimum all individuals and any age/gender demographics – where it is possible to determine a universe (the total number of people in the population) for the audience definition. Non-demographic audiences, such as people who have particular interests (eg. who like fishing), are harder to measure accurately and credibly (particularly their universes) which is why contextual advertising is a good way to reach them (most people who read editorial about fishing are interested in fishing). The end of third party cookies is already causing a resurgence of contextual advertising.

GRPs combine reach and frequency (by simple formula) to provide a universal audience measure and media buying currency that can be used for all advertising, regardless of channel. Delivering GRPs for advertisers requires collective will and action across media owners to measure audience universes, reach, and frequency in a standard and credible way across all channels. Such a clear, simple and effective measure of the audience for advertising is the minimum that marketers should expect from media vendors as third-party cookies come to an end.

# ON THE NEW SHARE-OF-SEARCHING APP (AND THE BOND FRANCHISE)

21 May 2021|



# [CORRECTION - THERE IS AN ERROR IN THIS POST. PLEASE TAKE A LOOK AT THE NEXT POST <u>HERE</u>]

This week Croft Analytics released a new 'Share-Of-Searching' app

at <u>https://www.shareofsearching.com</u> - users can use the app to view charts showing relative search volumes and share of search for up to 40 entered search terms (for example a list of brands in a category, or topics, or people, events etc.) with data sourced from Google. The data and charts can be filtered to individual countries and categories (301 Google categories to choose from) to reveal differences in search interest.

In addition to showing share of search for category brands (covered in prior blog posts), the app can be used to discover trends in levels of search interest for any topics/events/people etc. - from 2004 through to today. Search interest in movies and TV shows is a good example where the app can show rising and falling interest, with comparisons across multiple movies/TV shows, over time. Here is a movies example...

Using the app I have taken a look Google search volumes for all 26 movies in the Bond franchise, spanning movies released from 1962 (Dr. No) to 2021 (No Time To Die). The data shows that interest (at least search interest) in Bond movies has been in steady decline for some time.

The chart below shows the relative search volumes for all of the Bond movies from 2004 through to today. During these 17 years four Bond movies were released - Casino Royale (2006), Quantum Of Solace (2008), Skyfall (2012), Spectre (2015) - and No Time To Die is expected to be released later in 2021.

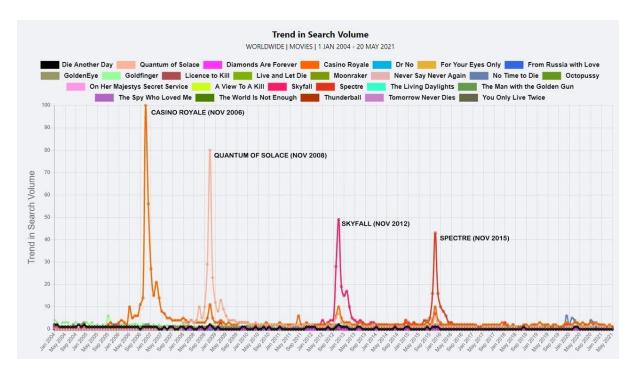


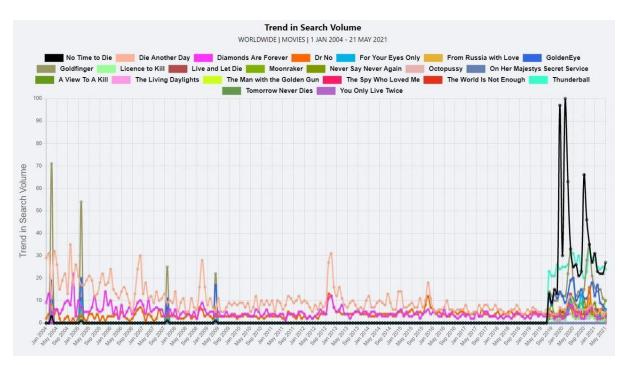
CHART 1: GLOBAL SEARCH INTEREST IN BOND FRANCHISE MOVIES FROM 2004 to 2021

The chart clearly shows that there has been a big drop in the total level of searching for each of the last four released Bond movies – at a global level there was a 56% drop in searching when comparing the release of Casino Royale in 2006 and Spectre in 2015. In the UK the drop was even greater, with a decline of 68%, and in the USA the decline was 67%. This indicates that the Bond franchise may be in long term decline.

# [CORRECTION - THERE IS AN ERROR IN THIS POST. PLEASE TAKE A LOOK AT THE NEXT POST <u>HERE</u>]

However, the Covid pandemic may be helping to revive interest...

If the four releases of the last 15 years are removed from the chart, the data – see the chart below – shows that there was a steady global decline in searching for all the other Bond movies between 2004 and 2019, but there has since been a revival of search interest during the Covid-19 pandemic, not solely because of interest in the yet to be released No Time To Die movie, but there has also been a rise in search interest for all the other Bond movies. CHART 2: GLOBAL SEARCH INTEREST IN BOND MOVIES, EXCLUDING LAST FOUR RELEASES, FROM 2004 to 2021

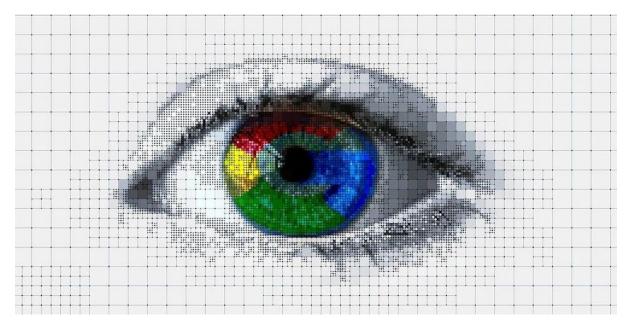


The data also show that whenever a Bond movie is released, in addition to the spike in searching for the new movie there is also a mini-spike in interest for other Bond movies, particularly the most recent prior releases.

To start using the Share-Of-Searching app, click here

# ON SHARE-OF-SEARCHING AND THE BOND FRANCHISE: TAKE TWO

24 May 2021

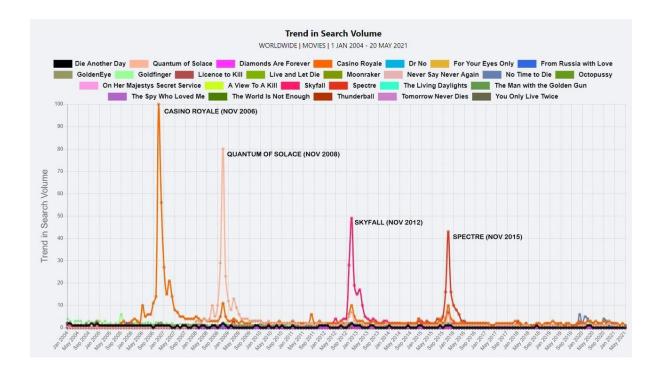


One of the maxims of a data scientist should be to always question data, and to change opinion when new data provides evidence that the original opinion was wrong. That happened to me yesterday thanks to a fortuitous <u>comment on LinkedIn</u> from (my excolleague) Chris Arnold in response to my blog post from last week examining search trends for the Bond franchise. It turns out that, contrary to what I said in the post, the Bond franchise is very much alive and kicking, certainly not "in long term decline". Here's the story...

## WHERE I WENT WRONG

In my <u>Croft Analytics</u> blog post of 21 May <u>here</u> I used the new <u>Share-Of-Searching</u> app to take a look Google search volumes for all 26 movies in the Bond franchise. Wrongly (I discovered yesterday), I said that "the data shows that interest (at least search interest) in Bond movies has been in steady decline for some time."

Unfortunately, and I guess reasonably, I had decided to look at the search data for Bond movies by filtering the data to Google's 'Movies' category. As Google says <u>here</u> "If you're using Trends to search for a word that has multiple meanings, you can filter your results to a certain category to get data for the right version of the word" – so I reasoned that some of the movie names, such as "Spectre", could have been searched for in contexts outside the Bond movie. I used the app to chart the trend in relative search volumes and share of search for all the Bond movies based on Worldwide data filtered for the Movies category since 2004. This was the result:

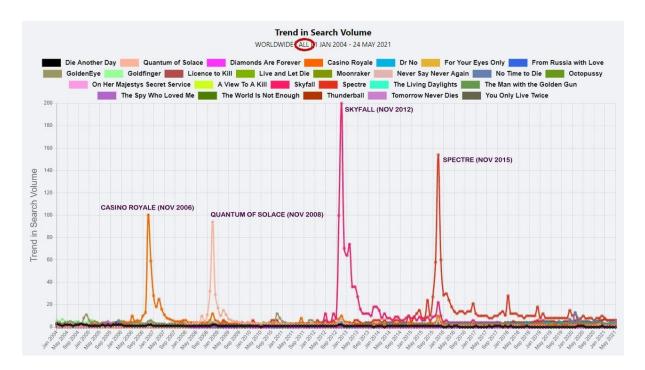


This chart (wrongly, it turns out) suggests a big decline in search for each new Bond movie released in the last sixteen years. However, that suggestion is wrong because (as I have discovered) the data does not reflect total searching for the Bond movies. It turns out that narrowing the data to the Movies category produces a reduced set of search data for the Bond movies that is misleading. Here's why...

Luckily Chris Arnold's <u>comment</u> to my post included a link to <u>this Forbes article</u> showing box office revenues for each of the Bond movies globally and in the USA. These revenue data show that, far from any decline, the revenues from the most recent Bond movies have been the highest, and dramatically increased for the most recent releases: Skyfall and Spectre. The Bond franchise is growing - Skyfall's revenue was almost double the revenue of Casino Royale. Common sense suggests that Google search data should reflect this, not indicate the opposite.

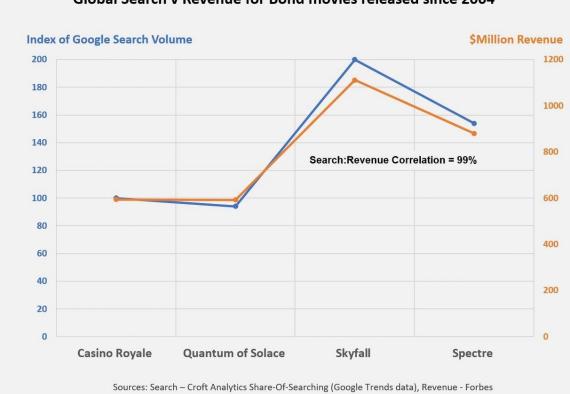
# **CORRECTING THE ERROR**

So, I went back to the Share-Of-Searching app and ran the numbers again, this time widening the data to include All search (not filtered to Movies) across all categories. Here is the result:



These data make much more sense when compared to the revenues for each of the Bond movies.

In fact there is a 99% correlation between the global revenues and search data for the four most recent Bond as this chart shows:



#### Global Search v Revenue for Bond movies released since 2004

So, a big thank you to Chris Arnold for helping me to reach this new conclusion: Google search trends (based on Global data across All Google categories) show that the Bond franchise continues to grow and grow. The search trend reflects revenue growth for the Bond franchise. As the Forbes article points out, the Bond series is the third-highest grossing franchise of all time (behind Marvel and Star Wars).

## USING SEARCH DATA TO PREDICT MOVIE REVENUES

Finally, I have looked further to see whether search data <u>before the release of a Bond</u> <u>movie</u> can be used to predict its box office revenue, and the answer (at least for the recent releases) seems to be "yes".

Taking relative search volume totals for the six months prior to the month of release of each of the last four Bond movie releases and comparing these pre-release search data to the box office revenue of each movie results in a 93% correlation globally and 99% correlation in the US. Using the Casino Royale revenue as the base, it is possible to accurately predict (with above 90% accuracy) the revenue of the next three Bond movies using search volumes from the six months prior to the release of each movie.

This begs the question – can search data prior to release dates be used to predict box office revenue for any movie? You can use the **Share-Of-Searching app** for daily, weekly, and monthly relative search volumes and share of search from 2004 through to today. Revenue data for movies can be found **here** 

# **ON SCIENCE AND CREATIVITY**

28 May 2021



Some people argue there is no science to creativity, that art is not science, that creative success depends on the eyes of beholders rather than science. Others argue there are scientific rules that dictate creative success. I think that artists/creatives (of any kind) can, and do, benefit from scientific insights and 'rules' – particularly data and trends that provide guidance on culture and human motivation.

Creative field is key - some creative endeavours lend themselves better to scientific input than others. Advertising is one of them.

Advertising creatives (at least the most successful ones) have always kept a keen eye on the science of human motivation and behaviour, knowing what motivates, what works best, what is likely to increase sales for a brand. That is, after all, what they are paid for. However, many of the scientific rules for creative success are tied up in the minds of great creatives, not shared and translated into scientific rules.

I recently read (and recommend) 'The Copy Book – how some of the best advertising writers in the world write their advertising', described as "a bible for creative directors" and featuring 53 essays from leading copywriters across the world. Every essay describes the author's personal rules for their success in copywriting, what they have learned works and what doesn't work. This book is full of science, of scientific method, of scientific rules for copywriting success. It is a scientific rule book for creatives.

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The science of creativity is not new. Many articles and books have been written about the things that make some ads more successful than others, systemically, repeatedly, predictively – with empirical evidence in support. Much has been written about emotion, humour, distinctiveness, neuroscience, behavioural economics, and so on – all having scientific bearing on creative effectiveness in advertising.

Science and creativity are not at odds, they are symbiotic. Creativity need science, science needs creativity.

# ON THE LINK BETWEEN SEARCH AND SALES IN THE MOBILE PHONE CATEGORY

4 June 2021



This is how I discovered (in three quick and easy steps) that there is a 93% correlation between search and sales in the mobile phones category...

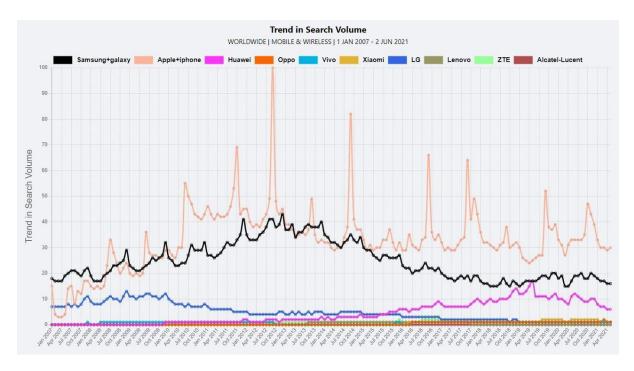
**STEP 1**: yesterday I chanced upon this table from Statista showing the 2019 global sales for each of the leading mobile phone brands.

Characteristic ‡	Units Shipped 🗘 (in millions)	Profit (in million U.S. 🗘 dollars)	Sales (in million U.S. 🛛 🌲 dollars)
Samsung	315	18,947	170,625
Apple	215	48,351	229,234
Huawei	152	6,890	87,646
Орро	111	1,400	60,000
Vivo	95	1,125	46,484
Xiaomi	95	1,000	17,000
LG	55	110	46,800
Lenovo	50	535	43,035
ZTE	45	719	17,123
Alcatel-Lucent	20	218	15,149

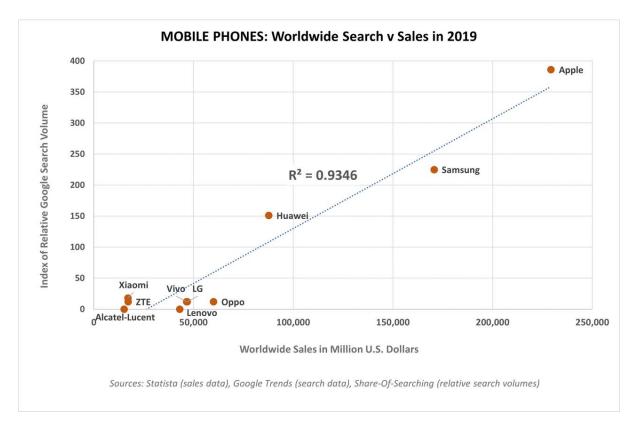
Ranking of leading mobile phone brands worldwide in 2019, by shipments, sales, profit

Source: Statista

**STEP 2**: I decided to look at the relative Google search volumes for these brands using the Share-Of-Searching app at <u>https://www.shareofsearching.com</u> – in three minutes I got this...



**STEP3**: I then exported the data from Share-Of-Searching to Excel and totalled the relative search volumes in 2019 for each of the brands, and then compared the 2019 search volumes to the value sales for each brand (this took five minutes), and got this...

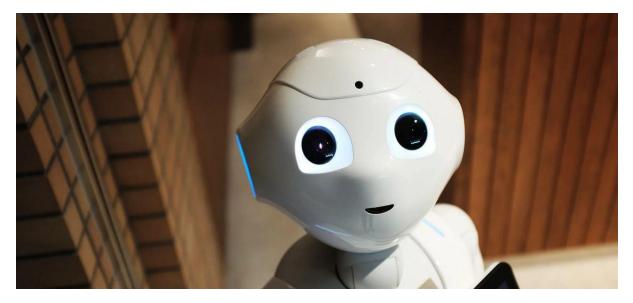


Hey presto! In ten minutes I had discovered that, in 2019, there was 93% correlation between Google search volumes and value of sales for mobile phone brands globally.

**Next step:** predict sales of mobile phone brands based on search data. As with movies and cars (see earlier blog posts) sales of mobile phones can be predicted from search data. Another reason to use the Share-Of-Searching app <u>here</u>

# ON ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

11 June 2021



Al and machine learning are the same thing (machine learning creates Al), but 'artificial intelligence' is a huge overstatement of what machines can achieve. There is nothing 'intelligent' about computers and the software that they use. Computers are quite literally dumb; they cannot think for themselves. They are not sentient beings. Nor is Al in any way artificial. It strictly follows rules provided to computers by humans.

Machine learning is also a misnomer. Machines do not 'learn' in the way that humans learn. Human brains are reduction engines, incredibly effective at using learning to filter useful signal from a large and wide cacophony of multi-sensory noise. Computers don't have the same capability. There are no computers that can (or are designed to) act and respond to the world in the way that humans do. Computers are intentionally far narrower, limited to, and focused on, *specific tasks* set by humans.

Machines apply algorithms - equations provided by humans - to data, and iteratively adapt the elements of the algorithms to become more effective at delivering specific measurable data goals set by humans. The 'learning' is at a basic level of "if this equation results in a data outcome closer to the goal, then choose it over one that is less effective". The machine learning depends entirely on a human-dictated goal, it does not choose the goal for itself. In many applications ML is used to deliver algorithms that are eventually applied as "effective enough", with no further 'learning'.

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The internet provides the large volume and range of data that machines need to apply machine learning to specific tasks. There are a huge and growing number of specific AI/ML tasks: for example, voice recognition and automation, self-driving cars/trains/ships/planes, medical diagnostics and robotic aids, sentiment engines, facial recognition (image recognition of any kind), fraud prevention and cyber security, traffic systems, recruitment, robotic factories, playing games such as chess and Go etc. In all these tasks (and many more) the computer is not mimicking the human brain, it is applying algorithms to do a better and quicker job than humans *for the specific task*. However, AI/ML remains far from being able to learn from and respond to the world in the way that human brains do.

A big issue with AI/ML is the potential for bias, in the algorithms provided for ML and the data used by ML. Very few datasets are representative and unbiased. Depending on the data that ML is based on, there are many possible biases that can (unintentionally) emerge. For example, race, gender, religion, location, and age biases are often cited as existing in AI/ML tools used by police forces and the criminal justice system, in recruitment, and in healthcare.

The future for AI/ML is an every growing spectrum of uses, all tackling specific tasks that can be delivered by computers faster and more effectively than by humans. However, as the AI world grows so will the many issues of bias, prejudice, and discrimination. There will also be an increase in AI/ML going wrong in areas that may be disruptive for humans, potentially dangerous, possibly disastrous.

# **ON GOOGLE TRENDS AND SHARE-OF-SEARCHING**

18 June 2021



<u>Google Trends</u> is a terrific tool (thank you Google!). You can enter up to five search terms at a time to see the trend in relative search volume for the terms all the way back to January 2004. You can filter the data by country and category. Google Trends is amazing. However, if you want to look at comparable search trends for more than five terms - for example, to compare search trends for all the brands in a category (most categories have more than five brands), you can't\*.

So, an issue with Google Trends is that you are limited to a maximum of five search terms at a time, and the data is not comparable from one group of five terms to another group of different terms\*. If you want to compare relative search levels for all car brands, or airlines, or any group of more than five search terms, you can't\*.

The reason why the data in the Google Trends tool is not comparable from one group of five terms to the next\* is because of the way the data is reported. The data for each group of search terms is shown as a relative search volume index (not actual volume) with the term that achieved the highest level of search volume at any point during the period is shown as 100 at that point, and all the other data points are indexed relative to the volume of the term with 100 at its highest point. If you then run the data for a different group of five terms, the term that achieved the highest volume of search at any point in the period will get a score of 100 – but that 100 is based on a different volume to the 100 from the highest volume term in the first group. This makes all the search indices in the second group non-comparable with the first group.

This is why Croft Analytics developed <u>Share-Of-Searching</u>, a tool that shows Google Trends data but allows up to 40 search terms to be entered at a time, with comparable search volume indices calculated and shown in trend charts for all the terms. The data is sourced directly from Google Trends. Users can filter the data by country, category, and date period,

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using the same options as in Google Trends. Share-Of-Searching makes it quick and easy to compare relative search volumes and % share of search trends for all the brands in any category, or any group of up to 40 search terms at a time.

In summary, there are two key differences between <u>Share-Of-Searching</u> and <u>Google Trends</u>:

- Share-Of-Searching shows trends in relative search volumes for up to 40 search terms at a time, while Google Trends limits users to a maximum of 5 search terms at a time.
- 2. Share-Of-Searching includes charts showing % share of search trends for each of up to 40 search terms at a time (showing trends in the percent of total search volume for each of the terms in the group. Share of search trends are not included in Google Trends (although they can be manually calculated for up to 5 search terms at a time). As mentioned in prior blog posts, in many categories share of search data can be used to predict market share. Share-Of-Searching provides quick and easy share of search data for up to forty brands in a category for any date period back to 2004.

Share-Of-Searching is free to use for two weeks, and to use it for a whole year costs only £500.

Take a look at https://www.shareofsearching.com

\*At least comparison is difficult and manually laborious, because you are limited to five terms at a time in Google Trends.

# ON THE PUNCTURED EQUILIBRIUM

21 June 2021



Amongst all species on the planet, Homo sapiens is one of the most vulnerable to extinction from a highly transmissible, rapidly mutating, deadly virus. This is because (being a relatively young species) we have much less genetic variation than most other living things. In fact, unlike most other species, humans are 99.9% genetically identical to each other. Lack of gene diversity makes it easier for viruses to propagate.

Luckily, we are clever and resourceful, giving us a stronger hand in the fight to survive. Despite this, COVID-19 has wreaked havoc for all humanity for eighteen months, with no end in sight. Many scientists talk about us having to learn to live with the virus (like influenza) long term. Without doubt, our lives have changed, permanently. There is nothing normal about it, no "new normal", rather a prolonged period of change and uncertainty. We are in a new era, a punctured equilibrium.

The pandemic has accelerated many business changes that were already in motion. Most people are much more aware of the impact that humans have on the planet, and the need to tackle climate change. Sustainability has become big business, with companies accelerating CSR programmes and eco-friendly credentials. But the really big shift that has been speeded up by the pandemic is the digital transformation of governments, businesses, and society.

The pandemic has forced governments to build and deploy apps that track the spread of COVID-19 and the vaccine "passports" that are needed for travel, it has forced businesses to sell more products and services online, and forced everyone to spend more of their life online, whether for entertainment or work. Many talk about the speed of transformation,

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concentrated change in one year that would have taken ten years. Internet businesses, most visibly Amazon, Google, Facebook, Microsoft, Netflix, and Apple, have been the inadvertent beneficiaries of the pandemic. But almost all businesses are now more digital because of the pandemic.

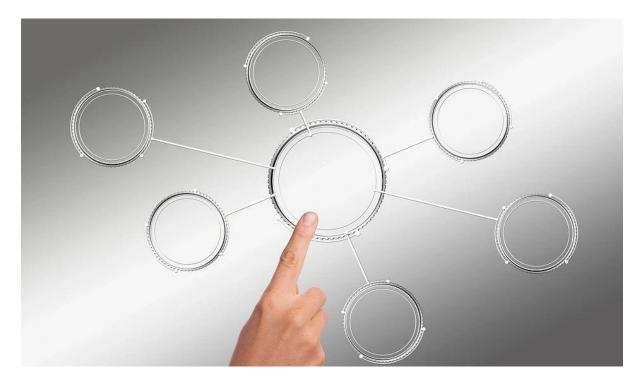
The pandemic has also decelerated many businesses, forcing large numbers to close, most notably the bricks and mortar retailers of the high street that were already trending down before lockdowns tipped them out of business. Places that used to throng with crowds of weekend shoppers have become wastelands of boarded up buildings. In 2020 more than 17,500 chain store outlets disappeared from high streets in the UK. 25% of retail products are now bought online in the UK.

There has also been a population migration out of cities and towns as the trend towards home working has been accelerated. The move to the country, to quieter closer-to-nature lifestyles, looks set to reverse the long-term urbanisation of the planet.

The COVID-19 pandemic has punctured the equilibrium, the relative peace and prosperity that the world had enjoyed for decades. Now it is much harder to predict the future, how we will live our lives, what our motivations and behaviours will be. There is no new normal.

# ON THE NEW 'SIMILAR TERMS' FEATURE IN SHARE-OF-SEARCHING

5 July 2021



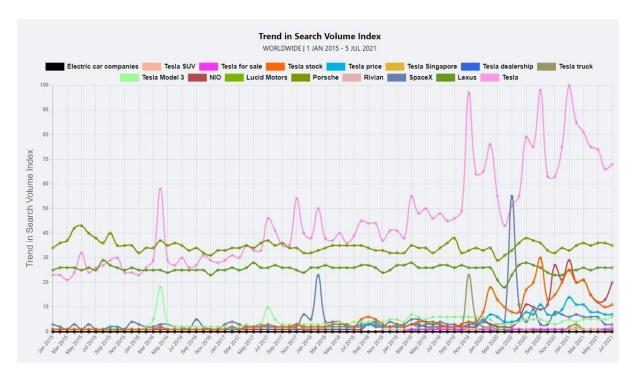
When you make a Google search, Google's algorithms display '*Related Searches*' at the bottom of the results page and a list of '*People Also Search For*' terms that may appear on the right side of the page.

'*Related Searches*' are search terms related to the term that was searched for. They provide useful insight into the kind of information people are looking for related to a search; the questions they ask, and their interests and intent. However, there is no indication of the relative search volume of the related terms to each other or to the original search that was made. Nor is there any indication of the trend in search interest for the terms.

The '**People Also Search For**' list shows Google-determined topics or products that are connected to the original search - another way that Google provides related queries that reflect the wider intent of the user. As with '*Related Searches*', there is no indication of relative search volumes or trend in search interest for the list.

This week Croft Analytics has added a 'Similar Terms' feature to its **Share-Of-Searching** tool that shows both the relative level of search volume and trend over time for '*Related Searches*' and the '*People Also Search For*' list. Users can now enter a single search term to see the trend (back to 2004) in relative search volumes and share of search for the entered search term alongside '*Related Searches*' terms and the '*People Also Search For*' list. The results can also be filtered by country and date period.

Here is an example of an output from Similar Terms showing relative search volumes for a search term - in this case 'Tesla' - along with its '*Related Searches*' and '*People Also Search For*' terms.



The chart shows a 3X rise of global search interest in Tesla between January 2015 and June 2021, with big spikes in interest around the times of major Tesla launches and events. The chart also shows that the two largest similar terms to Tesla are Porsche and Lexus. There was also a large spike in interest for SpaceX in May 2020 (astronaut launch). Several of the similar terms have also become increasing popular in the last two years including NIO (Chinese electric vehicles), Tesla stock, Tesla price, and Tesla truck.

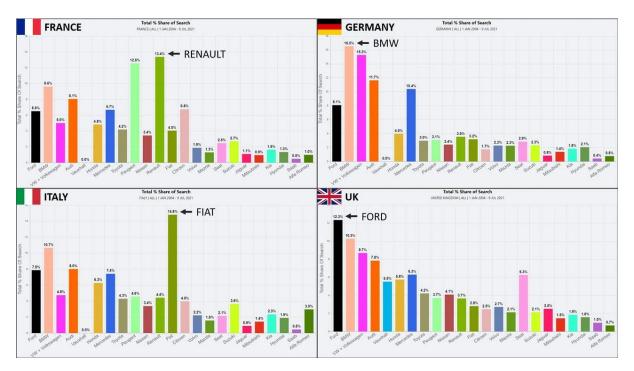
To see relative search volumes and trends in search interest for any search term, take a look at the 'Similar Terms' feature at <u>https://www.shareofsearching.com</u>

# **ON DOMESTIC FAVOURITISM**

9 July 2021



Most of us are biased in favour of our home nation, and not only during major international sports events such as Euro 2020. When we think about products and services, many of us also choose domestic brands over those from other countries. Data on what we search for in Google often reveals a big bias to brands from our home nations. Take a look at these charts, from <u>Share-Of-Searching</u>, showing share of search for brands in the car category since 2004 in major European markets...



When it comes to car searching, French people search most for Renault, Germans search most for BMW, Italian searching is highest for Fiat . . . and British buyers search most for Ford, the largest car brand in the UK for over 50 years. European market variation in support

of car brands is as varied as the support during the Eurovision Song Contest or Euro 2020. Domestic favouritism is alive and kicking when it comes to cars.

<u>Share-Of-Searching</u> reveals trends in relative search volumes and share of search for brands in each country, sourcing Google search data for every country in the world from 2004 through to today. Using these data, it is interesting to see how search trends for cars have varied over the last seventeen years in different countries.

In the UK, six car brands lead search volumes. While Ford has been the most searched car brand since 2004, the next two are consistently BMW and then VW. Coming from a much lower position ten years ago, SEAT has steadily gained share in recent years, becoming the fourth most searched for car brand, followed by Audi and Mercedes.

In France, two car brands lead search volumes - Renault and Peugeot – vying for first position from month to month. Then, as in the UK, German car brands prevail, with BMW, Audi, and Mercedes in the next three positions, although trending flat in recent years.

In Germany, perhaps unsurprisingly, the four German brands are the most searched for cars (accounting for over half of all car searches), with BMW and VW vying for pole position, followed by Mercedes and Audi. Ford is in fifth position and then there is a large gap down to search volumes for the other car brands.

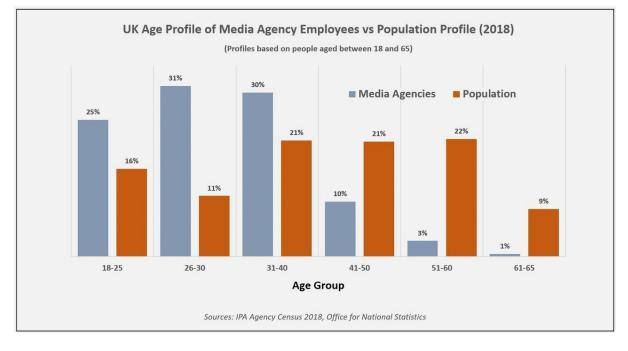
In Italy, Fiat dominates car searching, although it has gradually lost share over the last few years. In second position is BMW, consistently ahead of other brands. Then Ford, Audi, and Mercedes compete for the next positions from month to month.

In Spain, BMW and Mercedes compete for pole position from month to month, but consistently lead the pack. The next five most searched car brands – SEAT, Ford, Audi, Peugeot, and Renault, have closely competed for share of searching over the years.

Unsurprisingly, the search trends clearly show that the COVID-19 pandemic significantly reduced car searching back in March and April 2020. But since then, there has been a recovery, with search levels returning to pre-pandemic levels in the major European markets over the last year.

# ON BEING OLD

16 July 2021



I discovered I was old on 10th March 2020 (aged 57), while on a short tube journey to a work meeting. It came as a big surprise.

The train was packed, so I stood in the aisle holding my laptop bag. I was standing opposite a young man sitting in the seat reserved for "pregnant women, those with young children and the elderly or disabled". He was tapping his mobile phone. As we approached a station, he looked up for the first time and, leaping up with an embarrassed look on his face, said to me "sorry, I didn't see you there" while offering me his seat. I thought "OMG, he thinks I am OLD". I declined his kind offer with "I only have one stop to go". For the first time in my life, I realised I was Old. At 57. But I felt (and thought I looked) much younger.

Since then, I have been reminded that I am Old quite a lot. Age creeps up on you and then smacks you hard in the face.

I worked, and continue to work, in the advertising/marketing/media sector where the average employee age is about 25 years younger than me. Look at the chart above. It shows the UK age profile in 2018 of people aged between 18 and 65 working in media agencies compared to the population profile. People aged 50 to 65 account for just 4% of media agency employees, compared to a whopping 31% of the population. The Baby Boomer population bulge is now Old.

When I was 50, a headhunter approached me with a job saying "this is your last chance to move". He was talking about my age. At the time it seemed crazy to me that my age (rather

than ability) should be such a block. But it was an early warning. It turns out that age really counts, particularly when it comes to youthful sectors such as advertising.

Take a look at Bob Hoffman's <u>blog</u> for a weekly dose of comedy, tragedy, and wry acerbic observation on the state of advertising. He (also being Old) regularly argues (angrily and vociferously) that most advertising targets young people when the balance of purchasing power is in the hands of the Old.

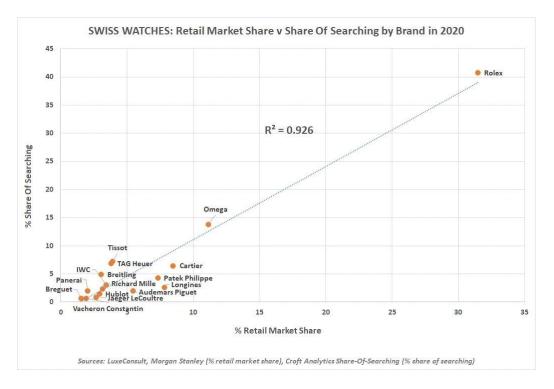
Don't get me wrong, this post is not a rant or complaint, solely an observation on what happens when we all get Old. Recently, while dead-heading roses in my garden (something that Oldies do more of), I reflected on the need in nature (that is the same of all living things) to remove the old to allow the young to thrive. When it comes to roses (and most other plants) removing the old is a positive thing. It makes room for the young, re-directing nutrients to the new buds, allowing for repeated flowering throughout the season. Before I start sounding too much like Peter Sellers in the wonderful movie Being There, I had better sign off with a final thought. Nature prevails, but I shall always feel young.

# ON THE LINK BETWEEN SEARCHING AND SALES FOR LUXURY WATCHES

6 August 2021

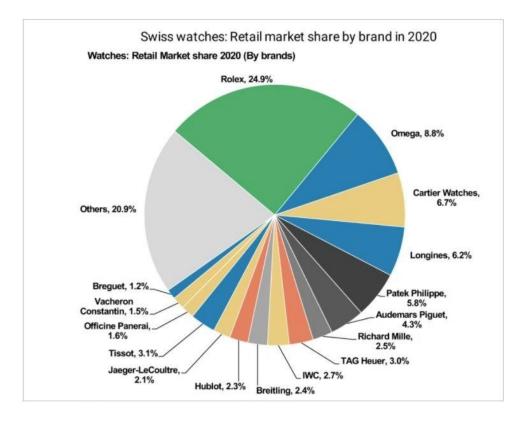


In 2020 there was a 93% correlation (R-squared) between worldwide share of Google searching and retail market share for luxury Swiss watches - see the chart below. This is another high interest category (in addition to cars, mobile phones, movies, and many others) where Google data on the relative levels of consumer searching for brands can be used to predict future sales for those brands.

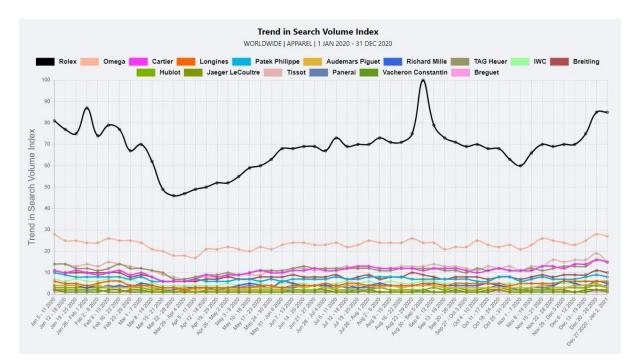


(Note: the % share numbers for the brands have been re-calculated to add up to 100% for the displayed brands)

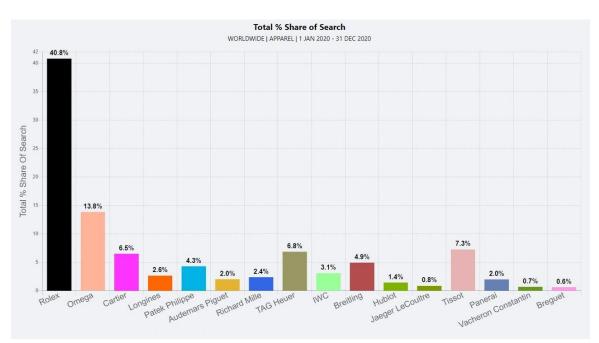
The source of the data for the market shares comes from Morgan Stanley Research and LuxeConsult's latest annual report on the luxury watch market, titled "King Rolex". The report includes the following chart showing retail market shares for Swiss watches in 2020:



Taking the brands from this chart and inputting them into Croft Analytics' <u>Share-Of-</u> <u>Searching</u> tool, and selecting 2020 Worldwide Apparel for the data, results in the following chart showing the weekly trend in relative levels of Google searching for Swiss watch brands in 2020:

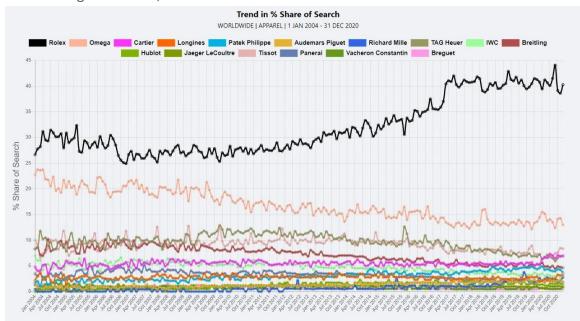


Rolex had clear dominance of searching in the luxury Swiss watches category throughout the year. The level of searching, as with most other luxury searching, fell significantly in March and April due to the Covid-19 pandemic. However, levels of searching have since returned to pre-pandemic levels.



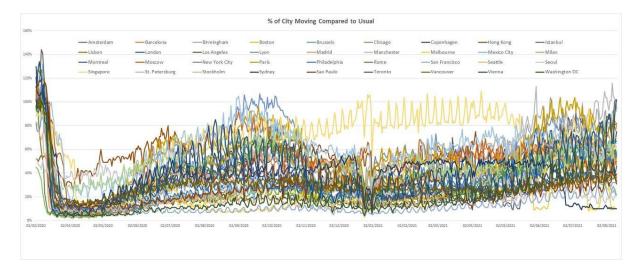
The overall share of searching for Swiss watch brands during 2020 is shown in this chart:

The dominance of Rolex in the category is clear, with 41% share of searching in 2020. Rolex's share of searching has also grown over time, as this chart showing the trend in share of searching since 2004, illustrates:



# ON HOW THE PANDEMIC HAS IMPACTED POPULATION MOBILITY

12 August 2021



COVID-19 has dramatically changed the lives of everyone on the planet, but the timing and impact of COVID-19 has varied from country to country. One aspect has been the effect of government restrictions on the movement of populations. While population mobility has been dramatically curtailed by the response to the pandemic, levels of mobility have varied throughout the last eighteen months depending on where people live.

The chart above, using data from the <u>Citymapper Mobility Index</u>, shows levels of population mobility each day over the last 18 months for major cities around the world. The Index is calculated by comparing trips planned in the Citymapper app, by its millions of users, to typical (pre-pandemic) usage. The app measures use of public transport, walking, cycling, and other micro-mobility activities (but not driving). It provides a large sample that reflects general levels of population mobility.

The chart shows that global population mobility was at its lowest level globally in April last year, at the start of the pandemic. As the pandemic spread rapidly around the globe, population mobility fell to around 10% of pre-pandemic levels in most parts of the world. During the summer of 2020 levels of mobility rose in many cities, to an average of close to 50%, but falling again to below 30% during the winter months. Since March 2021 there has been a steady mobility rise in most cities as vaccination rates have grown and governments in many countries have reduced restrictions. A year ago the average mobility level across all measured cities was 37%, today it is 53%. However there have been large variances around the world.

## Croft Analytics - Posts on Marketing, Media, and Data Science

Singapore has been an outlier throughout the pandemic, with levels of mobility consistently high through most of the last year, however levels have fallen to around 50-60% in recent weeks. At the other end of the scale is San Francisco - with an average 13% of usual mobility, the city has consistently tracked at the bottom of the global mobility ranking, rising slightly in recent weeks to 22% today. As the UK has relaxed restrictions ahead of many other countries, mobility levels in major cities have risen rapidly; to 67% in London, 80% in Birmingham, and 92% in Manchester yesterday. Conversely Sydney and Melborne have seen mobility levels dramatically reduced in recent days, to the lowest levels globally, due to government lockdowns.

The chart below shows mobility levels from a year ago compared to now -

## **Citymapper Mobility Index**

## % of city moving compared to usual

## Week ending Sun 9th August 2020

San Francisco >	8%
Melbourne >	10%
Washington DC >	12%
Los Angeles >	17%
Seattle >	17%
Boston >	19%
Mexico City >	21%
Chicago >	21%
New York City >	22%
Milan >	23%
São Paulo >	24%
Philadelphia >	27%
Montréal >	28%
Vancouver >	31%
Madrid >	34%
Hong Kong >	34%
Seoul >	34%
Sydney >	35%
Toronto >	36%
Barcelona >	37%
Birmingham >	37%
Manchester >	37%
Brussels >	40%
Copenhagen >	41%
London >	41%
Rome >	43%
Amsterdam >	48%
Lyon >	50%
Lisbon >	50%
Paris >	51%
Istanbul >	52%
Stockholm >	53%
Vienna >	67%
Moscow >	67%
Singapore >	67%
St. Petersburg >	75%

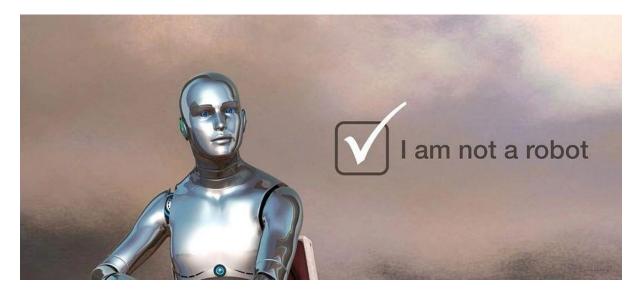
## Week ending Sun 8th August 2021

Sydney >	10%
Melbourne >	19%
Seoul>	19%
San Francisco >	23%
Milan >	28%
Mexico City >	31%
São Paulo >	34%
Vancouver >	36%
Los Angeles >	37%
Montréal >	39%
Seattle >	40%
Toronto >	41%
Washington DC >	43%
Amsterdam >	45%
Moscow >	46%
Madrid >	48%
Brussels >	51%
Copenhagen >	53%
Boston >	53%
Lyon >	54%
New York City >	56%
Philadelphia >	56%
Rome >	57%
St. Petersburg >	57%
Hong Kong >	59%
Singapore >	59%
Paris >	60%
Stockholm >	60%
Chicago >	63%
London >	66%
Barcelona >	70%
Vienna >	77%
Lisbon >	77%
Istanbul >	84%
Birmingham >	84%
Manchester >	102%

The **<u>Citymapper Mobility Index</u>** is a useful free tool for tracking the impact of the pandemic on the mobility of populations around the world on a daily basis.

# **ON PROGRAMMATIC ADVERTISING**

20 August 2021 Advertising, AI and Machine Learning, Audience, Data Science, Programmatic, Scientific rules, Targeting



About ten years ago I asked a top agency leader to predict the future of media agencies. Quick as a flash, "programmatic, one hundred percent programmatic" came the reply. At the time I was a bit sceptical. I thought the ad business would always be a people business, that human ideas and planning would always trump machines. Now, I can see that programmatic advertising will indeed determine very nearly every media buy, as well as a great slice of media planning, and increasingly the creation of advertising. Programmatic already automates the buying of most digital advertising (<u>eMarketer estimates</u> 88% of all US digital display ad dollars will transact programmatically in 2021), and it is not far from now when almost all advertising purchasing will be managed programmatically.

What is 'programmatic advertising'? A simple definition is "the automated buying and selling of online advertising space", but that is too narrow. Programmatic also includes a lot of media planning, certainly executional planning – the when and where and also the who of media decisions. Traditional media buying is a largely manual process involving requests for proposals, tenders, quotes, human negotiation (often lengthy) and manual media placements. Programmatic buying replaces this with use of machines and algorithms to automate the process efficiently and at a much lower labour cost for both buyers and sellers. The appeal is obvious. However, alongside the many benefits, there are some issues.

Programmatic advertising is dependent on the internet, terrific for automating buying and selling, but also a technology that is open to fraud. There is widespread use of bots that mimic human behaviour, driving up fake ad impressions and clicks, generating money for nefarious actors, siphoning off money from advertising transactions. Bots are one form of ad fraud, the nature and extent of ad fraud is well covered by Augustine Fou in a series of

presentations <u>here</u>. As an optimist, I expect ad fraud to decline as technology advances to help advertisers avoid it. I think it is, ultimately, a distraction.

A big element of programmatic, likely to become the driving force for all programmatic advertising, is the use of machine learning to maximise sales of advertised products and services. However, machines are not clever, they require humans to determine what they might do. Initial use of machines to retarget people who recently showed interest in a product, repeatedly surfacing ads for the product on sites that they subsequently visited has, by and large, not driven up sales and is generally regarded by consumers as an annoying invasion of privacy. Evidence that many people are unhappy with online ads is the high and growing use of ad blockers (see <u>here</u>). In the USA, <u>Statista reports</u> that 27% of internet users block online ads, up from 16% in 2014, showing that "a quarter of paid advertising messages will never reach their audiences". Online advertising needs to change, to be more empathetic and relevant, less intrusive and irritating.

Another watch out for advertisers is that (inadvertently) machine learned algorithms can unsell their products in the long term by targeting ads (very effectively) to the people most likely to buy the product. Unfortunately, the people who are the likeliest buyers are existing heavy buyers, people who would be more likely than others to buy the product anyway, without seeing the ads. Targeting existing regular buying customers, at the expense of light and non-buyers, is a sure-fire way to reduce the potential to grow sales in the long term. It reduces the reach of the advertising to fewer and fewer people, ultimately unselling the product. Of course, it is also possible to get algorithms to target non-buyers of a product, to focus on people buying other brands in the category. This would extend the reach of the advertising and increase long terms sales for the product. The best solution is to use machine learned algorithms to balance targeting between existing customers (possibly with new offers, range extensions, up-selling opportunities, loyalty options etc.) and light/non buyers with a mix of emotional branding and promotions.

Programmatic advertising, already the dominant form of digital advertising, will continue to swiftly grow and become more sophisticated and effective for advertisers. However, machines need human handlers to determine the rules behind their choices. There is a growing market for a human workforce with machine learning skills that help advertisers to avoid fraudulent bots, engage and empathise with consumers, and drive up sales.

# **ON SCIENTIFIC METHOD**

17 September 2021



Doubt is the cornerstone of science. There are no certain facts, only theories with probabilities that need to be continuously tested. The more evidence in support of a theory the higher the probability it is correct. However, there is only ever a probability (rather than a certainty) that a theory or "fact" is true. Robust, repeatable evidence is needed to reduce doubt. Theories need reappraisal and possible revision as the world changes over time.

Scientists need to be impartial, without preference or bias in favour or against theories. They need to test and assess theories solely on the scientific evidence. While doubt should be the starting point when judging a theory, impartiality is another vital requirement. However, it is almost impossible to be fully impartial. Everyone has an opinion, often subconscious, about everything based on our life experiences. But scientists must try to be doubtful and impartial when stating or reviewing theories.

Unfortunately, the cornerstones of doubt and impartiality are often missing when "facts" about advertising effectiveness are published. Too many claims are based on thin evidence and hyped, with data filtered and manipulated to fit partisan selling points. Whenever claims are made, recipients should ask a) is the theory credible b) is the claim impartial c) is the evidence robust and repeatable?

I learned a lot about scientific method from Byron Sharp, Professor of Marketing Science at the University of South Australia, when we connected in 2012. He invited me to talk at a

conference about the results from a global research programme that I was running. He advised me on the application of scientific method to determine empirical generalisations from the research. I was asked to present the results within the following useful framework:

- 1. State the theory
- 2. Prior literature supporting the theory
- 3. Conditions under which the theory has supporting evidence
- 4. Conditions under which the theory does not hold
- 5. Evidence supporting the theory
- 6. Implications of the theory
- 7. Suggestions for future research

Subsequently I had a <u>paper</u> published in the Journal of Advertising Research that was subject to rules on structure for the paper and rounds of peer review prior to acceptance for publication. Peer review is good scientific method.

With the immense volume of data available to data scientists today, there is great need for rigor, impartiality and (above all) doubt whenever claims and theories are made - these are critical for scientific progress to be made.

# ON THE LINK BETWEEN SEARCH AND SALES FOR GROCERY RETAILERS

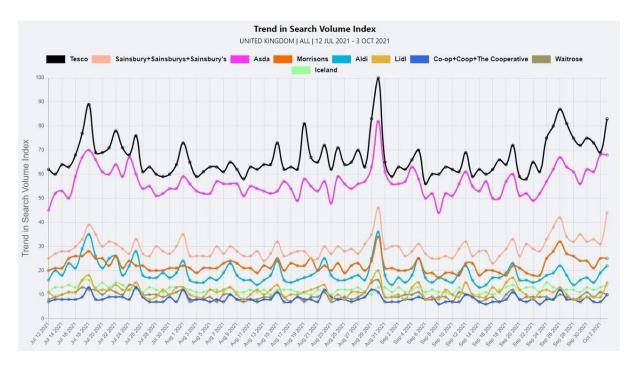
8 November 2021

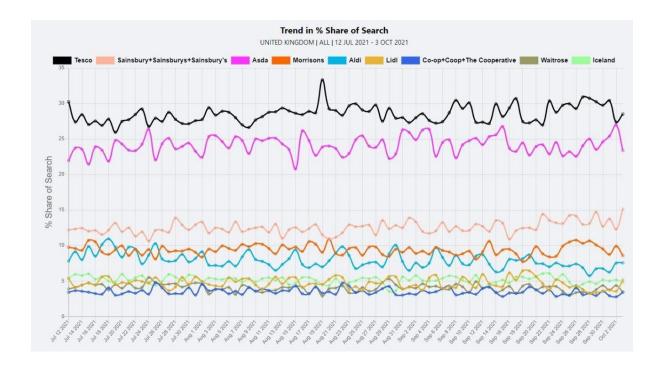


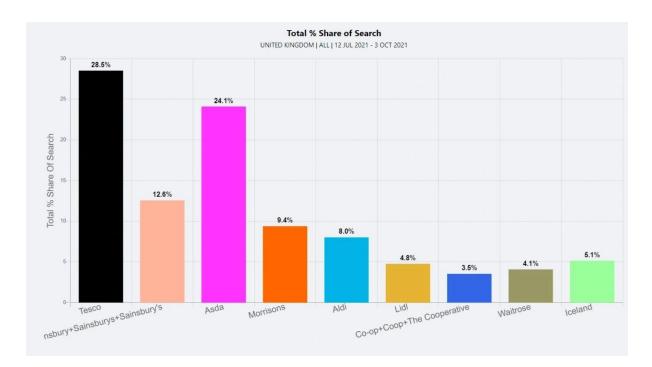
There are many categories where there is a high correlation between searching online for brands in the category and the subsequent market share of the brands. In categories where search is a part of the purchase process, search interest can often be used to predict sales. Here at Croft Analytics we have reported (see prior blog posts) on the relationship between search and sales for cars, luxury watches, mobile phones, and movies. Here is another category with a close relationship – grocery retailing.

This chart, from <u>Kantar</u>, shows the market shares of grocery retailers in the UK in the 12 weeks to 3 October 2021:

**Share-Of-Searching** can be used to chart trends in search volumes and share of search data for up to 40 brands (or other search terms) at a time. The following charts from Share-Of-Searching show the data for UK grocery retailer brands over the 12 weeks to 3 October 2021:







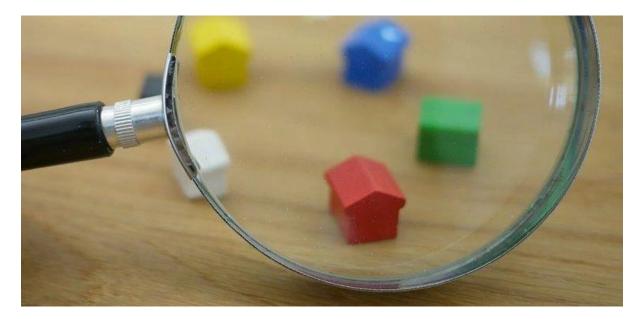
The following chart compares the market share data from Kantar and the Google share of searching data from Share-Of-Searching. It shows there was an 83% R-squared correlation between searching and sales shares for the UK grocery retailer category during that period:



While correlation does not infer causality, the high correlation suggests that further investigation could (as in other categories) reveal a causal and predictive relationship between search and sales for grocery retailers.

## **ON TRENDS IN PROPERTY SEARCHING**

12 November 2021



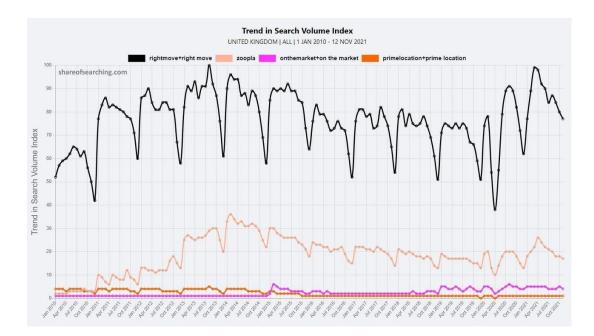
Not that long ago (ok, in pre-internet days), the only way to find a property to buy or rent involved scouring through property listings in local newspapers or visiting/calling local estate agents in the area you were interested in and then signing up to receive their property listing circulars by post or email. Not any more.

Of course, one of the greatest benefits of the internet for buyers and sellers has been the aggregation (into portals) of the wide range of purchase options within categories. While Amazon is the dominant portal for many (and a growing number of) categories, property aggregation continues to remain in the hands of companies that are local to individual countries. In the USA the largest property portal is Zillow, in the UK it is Rightmove, it is realestate.com.au in Australia, in Germany it is ImmobilienScout24, in Japan it is Suumo, and so on. It is also generally the case that the largest property portal in a country has market dominance, often with 70%+ share of the category. Buyers (and sellers) prefer to use one portal in the property category.

Taking the UK as an example, it is interesting to look at trends in Google search interest for the top property portals. The top portals are Rightmove, Zoopla, OnTheMarket, and PrimeLocation. While there are many others, these four companies account for over 90% of the category. Using <u>Share-Of-Searching</u>, it is easy to discover the trend in volume of Google searching, and % share of searching, for brands in any category, including property portals.

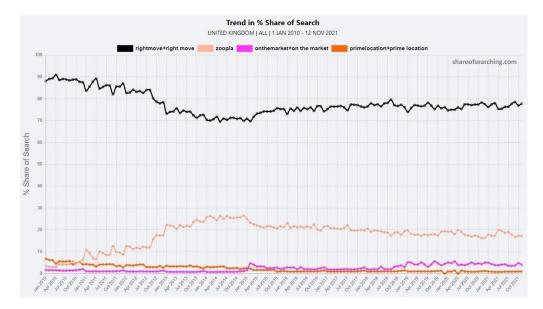
The chart below from <u>Share-Of-Searching</u> shows the monthly trend in the relative volume of search interest for the top four UK property portals since January 2010.

### Croft Analytics - Posts on Marketing, Media, and Data Science

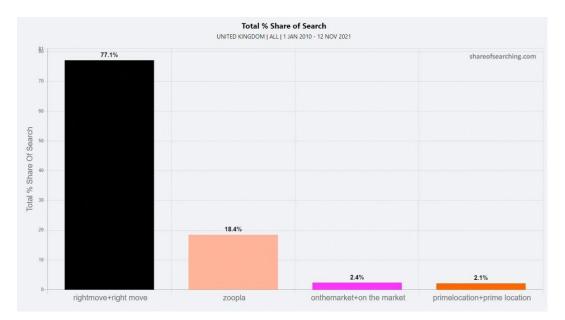


The chart shows that searching for property in the UK is very seasonal, with greatest activity between February and August each year, and much lower interest in November and December. The exception, unsurprisingly, has been during the Covid pandemic when search interest in property fell to a long term low in April 2020, at the height of the pandemic. However, subsequently and perhaps surprisingly there has been a big increase in property searching to above pre-pandemic levels. During the pandemic it seems that many more people than normal have been considering selling and buying property, or perhaps more time at home has led to more time spent browsing properties out of curiosity or nosiness.

These data also show that Rightmove is by far the largest player, about four times larger than Zoopla, the second ranked property portal. As the next chart shows, Rightmove's share of searching (amongst the top four) is consistently close to 80%, and this level has been maintained throughout the pandemic.



Share-Of-Searching also shows the total % share of search that each brand (or search term) achieved based on total volumes during the period. This chart shows that Rightmove's share of top-4 property portals search overall was 77% while Zoopla's was 18%.



Share-Of-Searching is a useful tool for exploring trends for up to 40 search terms at a time by country, region, or metro area, and within category or sub-category, for any date period from today back to 2004. Search volumes and % share of search data can be seen by day, week, or month. Use Share-Of-Searching free for two weeks by creating your own account for instant access without any obligation here – <u>https://www.shareofsearching.com</u>

# **ON BRAND PURPOSE**

18 November 2021



Q: what purpose do brands have? A: to help businesses sell more, profitably. Period (as the Americans say). At least that is how it always was.

Brands drive business growth. They help us instantly recognise products in stores. They lead to familiarity and favourability, and nudge saliency and consideration. They reduce price sensitivity. Brands increase sales potential at every moment of consumer contact.

However, the purpose for a brand can be (and often is) conflated and confused with 'brand purpose', a newish concept. Google's (excellent) <u>Ngram Viewer</u> shows that the term 'brand purpose' started to be used about 25 years ago and has been rising steadily in its use ever since. A quick Google search shows that recent definitions of brand purpose include "a brand's reason for being beyond making money", "a higher societal purpose beyond profit", "a higher order reason for a brand to exist than just making a profit", and "a commitment articulated by a commercial brand or its parent company to goals other than improved profits or products, involving contribution towards one or more positive social impacts in the fields of health, the environment, human development, sustainable business practices, or other similar areas". So, is brand purpose a good idea for a brand? Well, yes if it results in more sales and profit, and no if it doesn't. The danger is when the pursuit of brand purpose gets in the way of business success.

There has been quite a lot of media coverage about brand purpose recently, including articles with varying opinions from Byron Sharp ('<u>Purpose could be the death of brands'</u>),

Peter Field ('<u>Criticism of brand purpose is naïve and unjustified</u>'), and Mark Ritson ('<u>A true</u> <u>brand purpose doesn't boost profit, it sacrifices it'</u>). Brand purpose is a hot topic. ANA Members voted brand purpose as 2018's Marketing Word of the Year (even though it has two words).

Where does the rising interest in brand purpose come from? There are some big long-term shifts, seismic shifts, in public opinion that underpin the growing focus on brand purpose. Populations everywhere are increasingly concerned about the human impact on global warming and climate change, on human rights, on discrimination, on inequality, on social justice. Online news and social media are helping to drive the interest. It is therefore not surprising that brand owners seek brand purpose: to tie their businesses and brands to these rising human values. Doing good, doing the right thing, being worthy, sustainable, being ethical, saving the planet – have become the mantras for many businesses, and particularly their CEOs. Being woke is all the rage.

But is brand purpose good for brands? The answer seems to be yes for some and less so for others. It depends on what the brand purpose is, and whether it works for the brand. Brand purpose works when it is authentic to consumers, consistent, when it provides distinctiveness, when it increases engagement with the brand, when it reminds us of the brand at the point of contact. Brand purpose can be a distinctive asset. It can help a brand to resonate well with consumers. Examples include the consistent support that Patagonia and The North Face have given to organisations working to protect the environment. Good for the world, good for business.

However, 'doing societal good' is becoming table stakes with consumers – most of us expect (though not necessarily trust) brands to do the right thing. Saying you are doing the right thing may not help when everyone else is saying the same thing. It may be necessary, but not drive sales. Being exposed for wrongdoing may damage sales (although <u>VW</u> is a good example of a rebound) but doing good may not necessarily increase sales.

Brand purpose can certainly be damaging when consumers see a discrepancy between what the brand says and what it does. Often these discrepancies are called out in social media, and then more widely reported by mainstream media channels. Examples include <u>Pepsi</u>'s attempt to align with the Black Lives Matter movement and <u>Mastercard</u>'s World Cup Children's Meals campaign. Walking the talk is vital for successful brand purpose.

Brands grow by maximising their availability (physical and mental) and using distinctive assets. Brand purpose can help brands to increase both availability and distinctiveness, and so sell more. Profitably.

# **ON NEW INSIGHTS FROM SEARCH TERMS**

22 November 2021

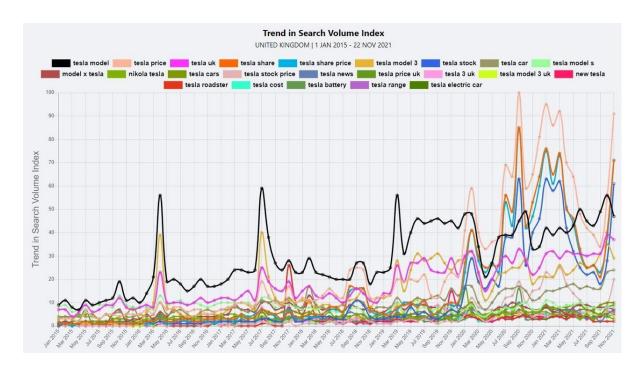


We have just released a major upgrade to the Similar Terms module in <u>Share-Of-Searching</u>, using new methodology to deliver terrific insights into related Google search trends that are associated with a search term (for example a brand name) in any country. The similar terms are automatically retrieved from Google.

Users can now input a brand name (or other search term) and select a country and date period (back to 2004) to discover search trends for associated search terms – the interests, intent, and questions that people make related to a brand (or other term). This reveals interesting, often unexpected, insights into search terms that are directly related to a brand. The new 'narrow search' option filters to similar terms that include the input search term, while the 'wide search' option extends to a broader set of associated search terms. Both result in fascinating charts of search trends around brands and any other search term.

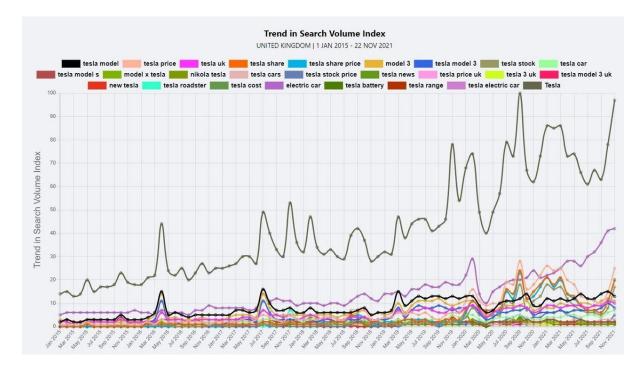
Here is an example, in this case for 'Tesla' in the UK. The chart below, based on a 'narrow search' shows the trends in relative search volumes for search terms that are closely related to Tesla:

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The chart shows rapid growth in search interest for many Tesla terms in the UK since 2015, with peaks in searching when new models are released. It also shows that since February 2020 the greatest interest has been in 'Tesla price', 'Tesla share', 'Tesla share price', and 'Tesla stock' – all trending highest during the pandemic. This compares with relatively low interest in these terms pre-2020. Since the UK removed Covid restrictions in July this year there has been a large increase in Tesla-related searching.

Using the 'wide search' option extends the data to a broader set of search terms that are related to 'Tesla' as shown in this chart:



The chart shows the dramatic growth in interest in 'Tesla', close to a tenfold increase over the last seven years. There has also been a big rise in searching for 'electric car'. Although there was a drop in car interest generally in March 2020 when UK Covid restrictions were introduced, levels of interest returned to pre-pandemic levels by the summer.

While the Similar Terms module is great for exploring search trends for terms related to any brand, it also reveals related terms, and the trends for those terms, for any search term - for example, take a look at celebrities, events, politicians, topics, influencers, brand purpose, travel destinations, companies... you name it.

### ON THE LAWS OF MARKETING SCIENCE

8 December 2021



*"If one studies the things which are regular, one will find regularities. Science is as simple as that. All one has to do is to pick on some regular things to study"* 

Andrew Ehrenberg, pioneer of marketing science, 1969

Brands that have higher market share in a category are those that are more available to buy and they more readily come to mind in buying situations than smaller brands. Marketing for a brand that reaches more people, particularly those who don't currently buy the brand, as well as very occasional buyers, leads to brand growth. This is not conjecture, it is proven to be true for almost all brands in all categories. Underlying this, the basis of its truth, are amazing discoveries about regularities in buyer behaviour that were made by Andrew Ehrenberg, a German marketing scientist whose ground-breaking work in the UK spanned the second half of the 20th century. His published laws about buyer behaviour and their implications for marketers continue to be true for brands today, with an ever-growing body of evidence that proves their applicability.

Ehrenberg's work has been well publicised and expanded upon by Byron Sharp, Professor of Marketing Science and Director of the Ehrenberg-Bass Institute, a marketing research institute within the School of Marketing at the University of South Australia in Adelaide. His 2010 book, How Brands Grow (see <u>http://marketinglawsofgrowth.com</u>), has become a best seller amongst marketers, market researchers, and marketing academics.

Here are some of Andrew Ehrenberg's discoveries, and what they mean for marketers today.

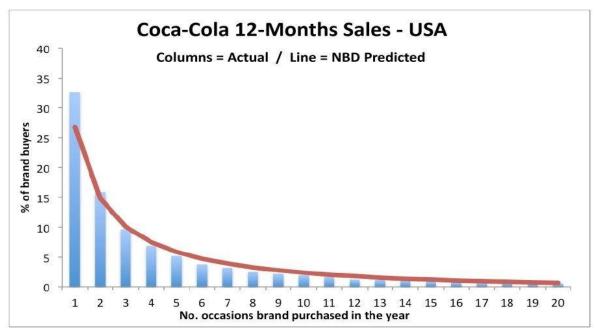
**1.** The Negative Binomial Distribution (NDB): the frequency of purchase pattern that is the same for all brands.

In 1959, Andrew Ehrenberg discovered that the Negative Binomial Distribution (NBD) provides a very good description of the numbers of purchases of individual brands of consumer goods in a single time period. He found that the NBD predicted purchase frequencies (with correlations above 90%) for big, medium and small brands in all categories that he looked at, from soap to soup to mascara, and in different countries, points in time, shorter and longer analysis periods, and for younger as well as older consumers. He proved that the NBD can predict the number of buyers and frequency of purchase for a brand.

"Such a quantified regularity was unprecedented in marketing. So it was (and is) exciting. We had stumbled on an empirically widely-grounded theory to benchmark how many people do or should buy any brand how often. (That should have been the end of marketing's pipedreams of just recruiting heavy buying buyers, but of course wasn't.)"

### Source: "The Pattern of Consumer Purchases" (Ehrenberg 1959)

Since then, the NBD has been found to accurately describe the frequency of purchase pattern for very nearly all brands, across categories and countries. It shows that most buyers are light buyers, very irregularly buying the brand, yet they account for about half of all sales for most brands. Most people don't buy in a category very often, and they buy a mix of brands in the category, and each brand they buy infrequently. So, very nearly all brands have a purchase frequency pattern that looks like this - the Negative Binomial Distribution:



Source: Dawes & Trinh 2017, Nielsen-Kilts 2014 panel data (sales)

**The implication of the NBD for marketers** is that brand growth comes from acquiring more buyers, particularly very light buyers. Given that the relative proportions of light and heavy buyers are extremely predictable, focusing marketing effort on heavy buyers of the brand will result in a loss of contact – and sales – amongst the non/light buyers that represent the future growth for the brand. This will unsell the brand in the long term through loss of acquisition.

There is good evidence to show that targeting non/light buyers is the most effective way to grow a brand. This is because of the lawlike nature of the NBD – a predictable proportion of new first-time buyers will repeat purchase the brand. The pattern of repeat purchase will spread through to the heaviest buyers over time – with lawlike predictability – resulting in predictable brand growth.

To grow a brand (any brand in any category) marketers need to market their brand to as many people as possible (particularly non and light buyers) and make the brand easy to buy for everyone.

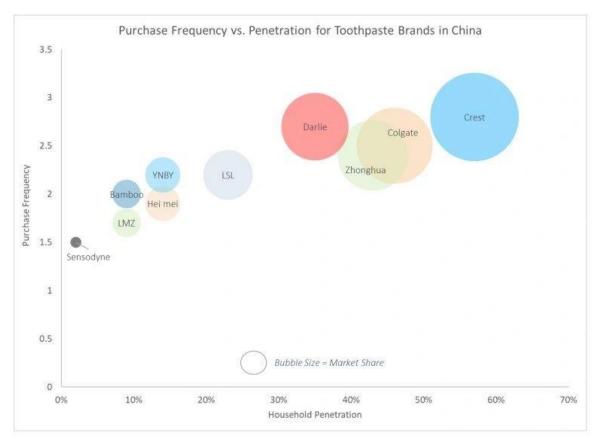
# 2. The Double Jeopardy Law: smaller brands have lower penetration and slightly less loyalty than bigger brands in their category

'Double jeopardy' was first coined in 1963 by social scientist William McPhee when he observed that comic strips read by fewer people were also liked less by those fewer people. Having identified the same pattern amongst radio presenters, he noted that smaller share brands suffered in two ways: fewer people buy them and there is less loyalty amongst that smaller number of buyers. Andrew Ehrenberg subsequently generalised Double Jeopardy as a law for brand purchasing in 1969.

The Double Jeopardy law states that a small brand not only has fewer buyers than a large brand in its category, but those buyers also tend to be fractionally less loyal. While the average buying rate for brands in a category is much the same for every brand, regardless of how big the brand is, it decreases slightly (and predictably) with the brands' market shares. Small brands have fewer buyers and a slightly lower level of purchase frequency than their bigger rivals – a "double jeopardy" for smaller brands.

"The double jeopardy relationship between penetration (b) and purchase frequency (w) in a established category can be mathematically expressed as w(1-b) = a constant."

Source: "Repeat Buying" (Ehrenberg 1988)



Source: How Brands Grow Part 2, Sharp and Romaniuk

Small brands also suffer from other 'jeopardies', for example price elasticity generally increases in magnitude as brand shares decrease (Scriven and Ehrenberg 2004). The smaller a brand is, the more sensitive its buyers are to its price.

The main implication of Double Jeopardy for marketers is that market share growth depends substantially on growing the size of a brand's customer base (by increasing its penetration). Brand managers of a smaller market share brand should not be reprimanded for lower customer loyalty metrics – lower loyalty is expected and a lawlike characteristic for smaller brands. Also, they should not be expected to be able to build customer loyalty to the brand without firstly substantially increasing the brand's market penetration. The role of brand marketing is to nudge the brand towards the top of each repertoire in the face of competitors' activities designed to do the same. The vital factor is penetration. Purchase frequency or loyalty remains roughly similar from brand to brand.

There are two potential deviations from Double Jeopardy in situations when there is restricted distribution for some of the brands within some categories:

i) A brand with unusually low penetration and, consequently, higher loyalty that contributes to its market share. For example:

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- Retailer brands (private label) because of their restricted distribution these brands' market share typically comprises unusually low penetration and (consequently) relatively high repeat buying.
- Hispanic TV networks in the USA because most US TV viewers do not speak Spanish these networks have few viewers, but these fewer (Spanish speaking) viewers watch for an unusually high number of hours compared to viewers of other networks with similar audience ratings.

ii) A brand with unusually high penetration and low repeat-purchase rates. For example:

• Seasonal brands (e.g. chocolate Easter eggs) – for their respective market shares these brands have an unusually high penetration and low repeat-purchase rates.

## **3.** The Duplication of Purchase Law states that brands share customers in line with their market share

The Duplication of Purchase Law shows that the buyers of any brand in a category will buy other brands roughly in-line with the market share of those other brands. Brands are typically substitutable, and this 'substitution' is directly proportional to each brand's penetration (Ehrenberg & Uncles 2000). How many customers of brand A also buy brands B or C in a period varies directly with how many then buy B at all, or C at all. Brands share customers far more with bigger brands, and far less with smaller brands.

Brand	% buying once or more in 12 months	% who also bought				
		Colgate	Aquafresh	Macleans	Sensodyne	
Colgate	49	120	30	23	12	
Aquafresh	26	57	i <b>n   </b>	27	10	
Macleans	20	58	37	2	12	
Sensodyne	12	47	22	19	-	
Average		54	30	23	11	

### **Duplication of Purchase: UK Toothpaste**

Source: Kantar UK, Dawes (2017)

The Duplication of Purchase Law predicts that a brand of any size will lose more customers to the largest brand within a category. It will also gain its greatest number of users from the largest brand.

"Your customers are the customers of other brands who occasionally buy you"

Source: "Repeat Buying 2nd edition (Ehrenberg 1988)

*The implication for marketers* is that the key for brand growth, particularly for smaller brands, is to reach and attract as many category buyers as possible – most particularly the buyers of the largest brands that do not currently buy the brand. This will help to maximise share of voice and mental availability amongst non/light buyers who are most likely to buy other brands in the category.

Deviations from the Duplication of Purchase Law exist where brands share more or fewer customers than expected. Where such unexpectedly high (or low) sharing occurs, the market can be called a sub-market or a partitioned market. Deviations have been found in categories where brands in the sub-market share functional differences that result in unusually high duplications. Example have been found in the following categories:

- Leaded and unleaded petrol (Ehrenberg & Uncles 2000),
- Children's cereal (Hammond, Ehrenberg and Goodhardt 1996)
- Luxury cars (Ehrenberg, Bound and Pouilleau 1999).

### 4. NBD-Dirichlet - predicts both purchase incidence and brand choice within a category.

The NBD-Dirichlet was developed in 1984 to calculate the probabilities, for all brands in a category, of:

a) The number of purchases that each buyer of a brand makes within a particular period, and

b) Each brand being bought each time there is a purchase occasion.

The NBD-Dirichlet models the number of purchases of every brand in a category over a period. By including the laws of Negative Binomial Distribution, Double Jeopardy, and

Duplication of Purchase, the NBD-Dirichlet describes purchase frequency and brand choice at the same time. Repeat-buying and brand-switching patterns recur, and can be predicted, in every category. The NBD-Dirichlet model can be used to predict the penetration and purchase frequency of every brand in a category.

Leading brands (and market shares)		Penetration (%)		Purchase frequency	
		Observed	Model	Observed	Model
Category	(100%)	86	86	6.1	6.1
Colgate	(28%)	43	46	3.4	3.2
Aquafresh	(12%)	23	24	2.8	2.7
Sensodyne	(7%)	11	14	3.1	2.5
Macleans Standard	(6%)	14	13	2.4	2.5
Tesco	(5%)	9	10	2.9	2.5
Asda Protect	(4%)	8	9	2.8	2.5
Boots	(1%)	4	3	2.0	2.4
Morrisons	(1%)	3	3	2.6	2.4
Thera-Med	(1%)	2	2	2.2	2.4
Macleans Sensitive	(1%)	2	2	2.7	2.4
All other brands*	(10%)	22	19	2.3	2.6
Average brand	N 533	10	10	2.5	2.5

The NBD-Dirichlet shows that big and small brands differ greatly in how many buyers they have, but much less in how loyal those buyers are.

The implication (benefits) of the NBD-Dirichlet model for marketers are well illustrated in a paper published by Ehrenberg, Uncles, and Goodhardt in 2002 and titled "Understanding brand performance measures: using Dirichlet benchmarks". The paper includes the following applications of the model:

- Auditing the performance of established brands, with norms for evaluating brands and for assessing marketing initiatives.
- Predicting and evaluating the performance of new brands
- Checking the nature of unfamiliar markets, of partitioned markets, and of dynamic market situations more generally (where the Dirichlet provides theoretical benchmarks for price promotions, advertising, etc.).
- Understanding of consumers, brands, and the marketing mix.

• For imposing constraints on marketing action

### 5. Some other observations made by Andrew Ehrenberg

- Brand buyers are polygamously loyal over long periods, buying habitually from repertoires of brands they know well, some more often than others. Very few customers of a brand are 100% loyal to it over a series of category purchases.
- Attitudes about brands change after behaviour, after buying and using the brand, not before. Behaviour changes attitudes. Consumers' expressed intentions-to-buy a reflect past purchases of it, and hence also their future ones if they are, as usual, much the same. But not any future changes.
- Different competitive brands appeal to much the same kinds of consumers. There is very little brand segmentation within a category.
- Advertising serves to publicise the advertised brand, and that advertising seems seldom to persuade.
- Competitive brands are perceived as very similar, and salience governs choice between them.
- Price promotions generally have only a short-term effect, and do not affect a brand's subsequent sales or brand loyalty. Extra buyers during a promotion have almost all bought the promoted brand before, rather than new buyers being attracted.

Brands that have higher market share in a category are those that are more available to buy, and more readily come to mind in buying situations than smaller brands. Reaching more people, particularly those who don't currently buy the brand and very occasional buyers, leads to brand growth.

"Of the thousand and one variables which might affect buyer behaviour, it is found that nine hundred and ninety-nine usually do not matter. Many aspects of buyer behaviour can be predicted simply from the penetration and the average purchase frequency of the item, and even these two variables are interrelated"

*Source: Repeat Buying (Ehrenberg 1988)* 

### PROGRAMMATIC TARGETING, A CAUTIONARY TALE

20 December 2021



Recently I used Google Ads to run my own Google search advertising campaign. Self-serve seemed simple. My objective was to maximize physical and mental availability for <u>Share-Of-Searching</u> (Croft Analytics' global search trends tool), to reach as many people as possible who were searching around a number of relevant keywords (such as 'search trends' and 'share of search'), and to convert and many as possible to visit the <u>Share-Of-Searching</u> site. Advertising on Google search for Share-Of-Searching seemed to be a no-brainer. So, I set the campaign objective as 'website traffic' and the bid strategy as 'maximise clicks'. I carefully created my ads, chose the keywords, created ad extensions, and targeted 'all countries and territories' ... because Share-Of-Searching is relevant in every country that Google operates in.

Initially, everything seemed to go well. The results started quite slowly for a day or two and then improved quickly over the next few days. Impressions and clicks went up and the cost per thousand and cost per click went down. I was impressed by the improvement in performance and put this down to the Google machine learning that was automatically adjusting the ads delivered and the people exposed to the ads to maximise the reach and clicks for every £ spent.

But then, after a week, I decided to take a look a the 'Locations' data and found, to my surprise, that **most of the clicks were happening in Indonesia**. Over half of the campaign's clicks were in Indonesia, and nearly one in every two impressions there was converting to a click, and the cost per click was incredibly low. There were zero clicks in the UK and USA, the two countries with the largest marketing press coverage of the share of search metric. Something was definitely wrong. It is extremely unlikely that people in Indonesia are many

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times more likely to be interested in Share-Of-Searching than people in the rest of the world.

So, I decided to exclude Indonesia from the campaign going forward. But then, from that moment onwards, the campaign impressions and clicks per day fell by about 75% and the click through rate fell by 50%, and the cost per click quadrupled. Without Indonesia the cost of finding clicks had hugely increased. There was also no improvement in performance from day to day. The Google algorithms seemingly could not find a way to improve performance without Indonesia in the mix.

This is a cautionary tale - it is a good idea to very closely monitor, and possibly exclude, countries from global search campaigns where there are known issues with click farms. Indonesia is high on the list. More on click farms <u>here</u> and <u>here</u>.

Caveat emptor!

### ON THE LINK BETWEEN SEARCH AND SALES FOR MOUTHWASH BRANDS

26 January 2022

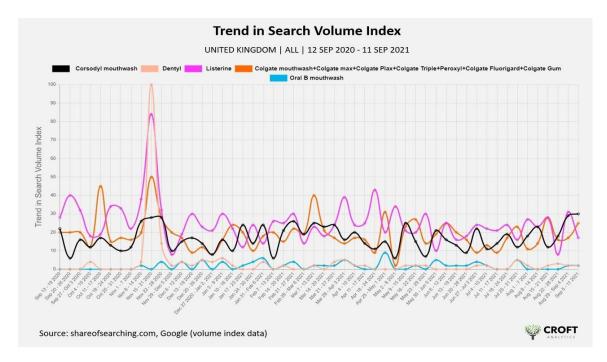


There are many packaged goods/FMCG categories where there is high correlation between % share of search and % market share for category brands. Patterns of search interest can also be used to predict sales in some categories. One example is the mouthwash category.

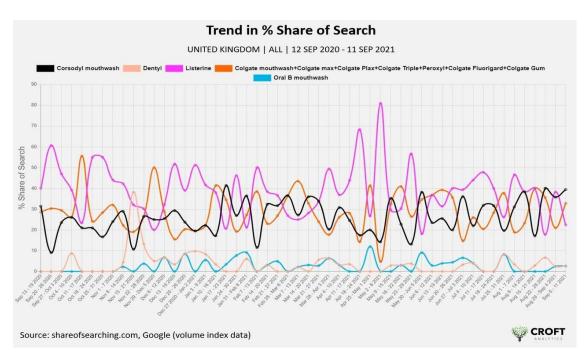
This <u>table from NielsenIQ</u> shows value sales for the top five mouthwash brands in the UK in the 52 weeks to 11 September 2021:

Top 5 Mouthwash					Total volume change	4.7%
				£m	change (£m)	change (%)
		Total Category		140.6	7.0	5.3
		Total Own Label		7.6	0.9	1.2
2021	2020					
1	1	Listerine	Johnson & Johnson	72.9	4.7	6.9
2	2	Colgate	Colgate- Palmolive	29.8	1.5	5.5
3	3	Corsodyl	GSK	15.4	1.0	6.9
4	4	Dentyl	Dendron	3.1	0.4	15.4
5	6	Oral B	P&G	2.5	0.2	6.4

The Grocer's Top Products Survey 2021: Nielsen/Q 52 w/e 11 September 2021 Source: Nielsen \* Created with Datawrapper Using <u>Share-Of-Searching</u> it is easy to find % share of search for each of the brands for the same period. The following chart shows the trend in relative volume of Google searching for UK mouthwash brands over the same 52 weeks to 11 September 2021:



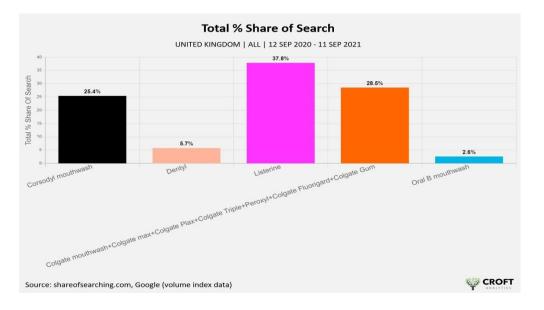
There was a big spike in search interest for Dentyle and Listerine in November 2020. In Share-Of-Searching users can click on any of the trend line dots to open a new tab that shows the results of a Google search for that brand for that day/week/month. In this case, the cause of the search spike was media reporting of a study into Dentyl claiming that "mouthwash can eradicate coronavirus within 30 seconds of being exposed to it".



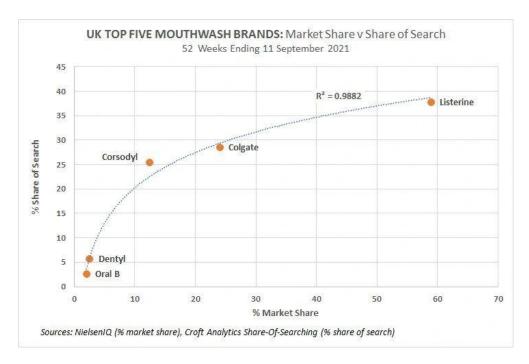
This chart shows the trend in % share of search for the brands:

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The chart shows that Listerine, Corsodyl, and Colgate are the three primary search competitors each week. Dentyl had its moment in the top position in November 2020 when the research study into Dentyl's effect on the Covid virus was published. This chart shows the % share of search for each of the brands over 52 weeks to 11 Sep 2021:



The following chart compares % market share and % share of search for the mouthwash brands in the 52 weeks to 11 September 2021. It shows there was an 99% R-squared correlation between searching and sales shares for the top brands during that period:



This analysis shows that oral hygiene sales are closely related to levels of search - the greater the search interest for a brand, the higher the sales for the brand.

# ON THE END OF THIRD-PARTY COOKIES – TAKE TWO

4 February 2022



Preservation of personal privacy and security, and how personal data is used by third parties, is an ongoing issue that concerns most internet users. It resulted in the EU's GDPR regulation in 2018 and California's CCPA in 2020. In 2017, Apple's Safari became the first major browser to block third-party cookies by default, followed by Mozilla's Firefox in 2019. Since announcing their Privacy Sandbox initiative in 2019, Google has been planning the removal of third-party cookies from Chrome, now expected by the end of 2023.

### THE END OF THIRD-PARTY COOKIES

Third-party cookies do not belong to the owner of the site that a user visits. They are widely used by ad tech providers for cross-site tracking of individuals, and they play a big role in how ads are targeted and served on the internet. Removing third-party cookies without a suitable replacement runs the risk of reducing ad revenues for online publishers. A 2019 Google study into publisher web sites found that cookie-less traffic resulted in 52% less revenue for the publishers than traffic where a cookie was present.

Google's original plan was to replace the use of third-party cookies in Chrome with FLoC (Federated Learning of Cohorts), allowing advertisers to target ads based on user 'cohorts' based on browsing habits. Targeting would be based on interest groups of people who visited similar sites to each other. Machine learned algorithms would allocate users to FLoC groups as they browsed. This approach has now been abandoned following ongoing privacy concerns and issues relating to algorithm bias, discrimination, and fairness. In January 2022 Google announced that FLoC has been replaced by Topics, a new proposed alternative to cookies.

### **GOOGLE TOPICS**

Topics allows advertisers to target ads based on user interests as follows:

- The browser determines "a handful of" interest-based topics each week, for example "Fitness" or "Travel & Transportation," that represent each users' top interests for the week based on their browsing history.
- Topics are curated by Google to "exclude sensitive categories such as gender or race". The browser will use a set of topics selected from this human-curated, publicly visible list. The proposed Topics list currently contains around 350 topics to reduce the risk of fingerprinting.
- Topics are kept for three weeks, old topics are deleted.
- When a user visits a participating site, Topics picks three topics, one from each of the past three weeks, to share with the site and its advertising partners.
- There are two main parts to Topics: i) Each website is labelled with a high-level topic. For example, the browser would match a sports website with the topic "Sports". ii) The browser collects most frequent topics associated with websites visited. These topics are then shared (one new topic per week) with the sites visited.
- Specific sites visited by a user will no longer be shared across the web, like they might have been with third-party cookies.
- Users can see assigned topics, remove topics, or disable the feature completely.

### THE RISE OF FIRST-PARTY DATA

The end of third-party cookies is likely to result in greater use of first-party data for targeting advertising. First-party data, including first-party cookies, belong to the owner of the site that a user visits. For publishers, first-party data is all data associated with user log-ins (subscriber/user registrations and subscriptions) and user profiles and all first-party cookies that can be used to capture what people visit and do on their owned sites. Publishers can use their own first-party data to target advertising for visitors to their sites based on the content that they view and the actions they take on the site.

The rise of first-party data may deliver benefits for publishers and advertisers. Some of these could be:

- Less fraud, greater transparency and accountability.
- Greater user privacy and personal control over privacy.
- Greater brand safety.
- Less spam for users.
- Greater/easier compliance with regulation.
- Content improvement, a growing focus on premium content, a better and safer context for ads.



#### About Croft Analytics (https://www.croftanalytics.com)

Croft Analytics provides consulting and software as a service:

- Subscription software that tracks the performance of brands in search and social media.
- Projects, webinars, and reports on marketing and media topics.
- Marketing and media information service.

#### About Frank Harrison (https://www.linkedin.com/in/frharrison)

Following many years in senior R&D roles at Publicis Groupe companies, I founded Croft Analytics in 2020 to provide a consulting service and to create unique methods and data-driven tools that measure brand performance and contribute to brand growth worldwide. Previously I was Global Research Lead at Publicis Media where I worked with agency teams and clients across many categories and countries. My expertise includes data science, consumer and media research, brand growth science, consumer journey measurement, brand strategy, knowledge management, and marketing return on investment. Since 1996 I have been a Fellow of the UK's Institute of Practitioners in Advertising (IPA).

#### About the Croft Analytics Blog

I post thoughts on marketing, media, and data science to the Croft Blog. The blog can be viewed <u>here</u>.

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