



# New Growth Accelerators for A Crowded Internet

# Insights from Google Research & Experiments

Ever since the Pandemic began, consumers have been spending significantly more time online and are undertaking more searches to find things and answer everyday problems. Like all of us are aware, there are so many choices on the Internet, and it's so easy to flip from one to the other during the search phase. Think of how you currently search: multiple tabs open and flipping between tabs to compare products and services. With a sudden wealth of options and opportunities available to us, we know consumers have resorted to coping mechanisms – mental shortcuts and techniques that help us cut through to what matters most to make a choice. Consumers have activated mental processes to deal with the abundance of the web. Consumers now deal with scale and complexity using cognitive biases encoded deep in our pre-digital history. Understanding how consumer decision-making has changed will enable any business to win more business from its competitors.

Google researchers embarked on project to answer the simple questions: *what motivates a consumer to make a purchase and what makes them decide who to buy it from?*

The two-year project by Google to answer this question uncovered what they term "the messy middle". The messy middle is a space of abundant information and unlimited choice that shoppers have learned to manage using a range of cognitive shortcuts.<sup>1</sup>

The behavioural scientists identified that when consumers are faced with all the complexity offered by the Internet, they resort to behaviours to try and make it simple for themselves and reduce the effort required to make a decision.

## How Consumers Deal with Complexity of Information

Google's researchers and behavioural scientists researched guest behaviour to identify the reality of consumer decision-making. The two states that consumers fluctuate in are the Exploring and Evaluating stages. Exploration is an expansive activity, while evaluation is inherently reductive in nature. When exploring, consumers will look at brand and categories, but when evaluating, we narrow down the options. The best way to think of it is that there between the two poles of trigger and purchase, there is a messy

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<sup>1</sup> The Messy Middle of Purchase Behaviour – Google, 2021 P.7

middle where guests bounce from one to the other in what can be an endless loop. The model is depicted right.

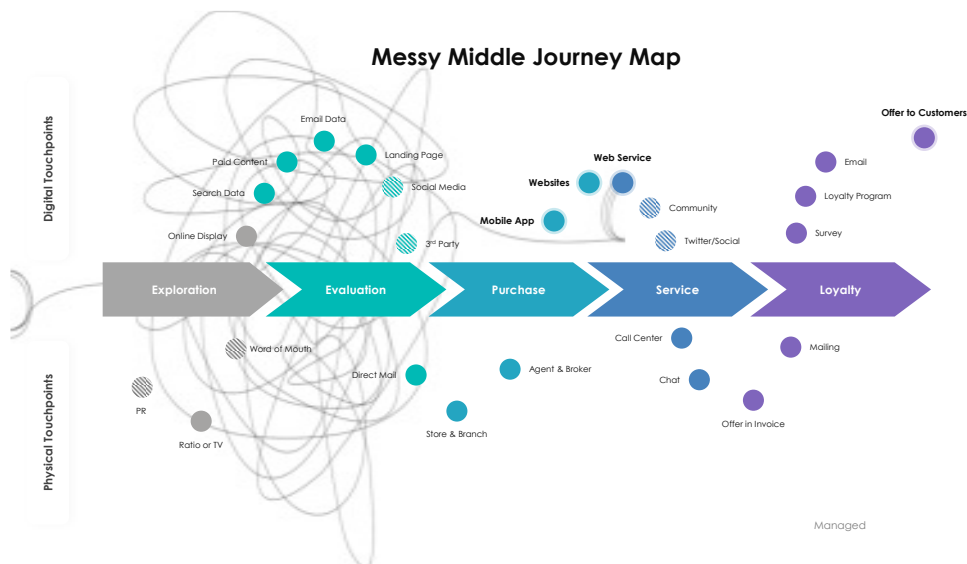
This process takes place against an ever-present backdrop of exposure – effectively a substrate representing all of the shopper's thoughts, feelings, and perceptions about the categories, brands, products, and retailers.



## Understanding What is Happening In The Loop

According to Google researchers, consumers explore their options and expand their knowledge and consideration sets, then – either sequentially or simultaneously – they evaluate the options and narrow down their choices. For certain categories, only a brief time might be required moving between these modes, while habitual and impulse purchases may bypass the loop altogether. But other purchases, typically more complex, encourage or even oblige us to engage in lengthy exploration, generating a healthy number of options to evaluate.

Contrary to traditional journey mapping thinking, the consumer does not move in a linear journey. Instead, the consumer flips and flops between the exploration and evaluation stage in an asymmetrical loop. By taking a traditional customer journey map and superimpose the messy middle, we end up with a journey that resembles the diagram below:



The question for marketers is how to break the loop so that the consumer selects your brand as the winner? In other words, how do you persuade someone to stop shopping around and actually buy what you're selling? The goal is not to force them out of the activity they have chosen to pursue but to provide them with everything they need to feel comfortable making a decision.

## 6 Biases That Influence Behaviour In The Middle

Google and the behavioural scientists ran a number of experiments to test and validate a number of hypotheses on what influences people during the exploration and valuation stages. The outcome was that they identified six biases that influence behaviour in the messy middle and lead consumers to make a purchasing decision. Outlined below is the summary of the six biases:

1. **Category heuristics** are shortcuts or rules of thumb that aid us in making a quick and satisfactory decision within a given category. An example would be focusing on how many mega pixels (MP) the camera has when purchasing a smartphone or how many gigabytes (GB) of data are included in a mobile phone contract.

Princeton psychologists, Shah and Oppenheimer,<sup>2</sup> found heuristics reduce cognitive effort through the following impacts on decision-making:

- Examining fewer pieces of information
- Relying on easy-to-access pieces of information
- Simplifying the weighting of information
- Integrating less information in a decision process
- Considering fewer alternatives overall

2. **Authority bias** describes the tendency to alter our opinions or behaviours to match those of someone we consider to be an authority on a subject. When we're unsure, we tend to follow the lead of people we believe to be credible and knowledgeable experts, and therefore may use an authority view as a mental shortcut. In one experiment, the brains of 24 college students were scanned while making financial decisions. If students received advice from a renowned economist,

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<sup>2</sup> Shah, A. K., & Oppenheimer, D. M. (2008). Heuristics Made Easy: An Effort-Reduction Framework. *Psychological Bulletin*, 134(2), 207–222

the scans showed that the decision-making parts of students' brains showed less activity as the students "offloaded" the burden of the decision process to the expert.<sup>3</sup>

3. **Social proof** posited by psychologist Robert Cialdini<sup>4</sup> describes the tendency to copy the behaviour and actions of other people in situations of ambiguity or uncertainty. The Internet has digitised word-of-mouth reviews and recommendations, making it much easier for people to rely on social proof as a shortcut for decision-making. Sometimes we're conscious of this, for example if we take the time to read consumer reviews, but often we're influenced unconsciously. For example, without thinking, we might click on an ad that includes a four- or five-star rating, drawn to what appears to be a popular choice.
  
4. **Power of now** describes the fact that we tend to want things now rather than later. Humans are wired to live to deal with the problems of the here and now rather than our ability in the present – our evolutionary survival hinged on our ability to plan for the future. This explains why people often find it a challenge to save for their future.<sup>5</sup> "Power of now" also explains the success of instant downloads or 24-hour delivery versus having to wait to get a product.<sup>6</sup>
  
5. **Scarcity bias** is based on the economic principle that rare or limited resources are more desirable. As Robert Cialdini states: "The scarcity principle trades on our weakness for shortcuts".<sup>7</sup> Scarcity typically takes one of three forms:
  - Time-limited: when there is a time limit to a product's availability, it creates a deadline that makes people act before the time is up.
  
  - Quantity limited: limited or rare supplies are perceived by people as a threat to their freedom of choice, triggering a reaction to fight the threat and maintain their access to the resource.

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<sup>3</sup> Engelmann J. B., Capra C. M., Noussair, C., & Berns G. S. (2009). Expert Financial Advice Neurobiologically "Offloads" Financial Decision-Making under Risk. *PLoS ONE* 4(3): e4957. <https://doi.org/10.1371/journal.pone.0004957>

<sup>4</sup> Cialdini, R. B. (1984). *Influence – The Psychology of Persuasion*. Collins

<sup>5</sup> Thaler, R. T. (1991). "Some Empirical Evidence on Dynamic Inconsistency" in Richard H. Thaler, ed.. *Quasi Rational Economics*. New York: Russell Sage Foundation, 127–33.

<sup>6</sup> The scientific name for "power of now" is discounting the future, which the economist Richard Strotz explored in 1955 with his work on hyperbolic discounting and time inconsistent preferences.

<sup>7</sup> Cialdini, R. B. (1984). *Influence – The Psychology of Persuasion*. Collins.

- **Access limited:** meaning limited access to features like information, groups, or spaces. Censorship makes people place a higher value on restricted features because exclusivity makes them feel special.

6. **Power of free** describes the fact that there is something special about the price of zero. The demand for a product or service is significantly greater at a price of exactly zero compared to a price even slightly greater than zero. In his book "Predictably Irrational", behavioural economist Dan Ariely writes about a study in which people were given the option to choose between two offers. One was a free \$10 Amazon gift card, the other a \$20 gift card that could be bought for only \$7. More people chose the \$10 gift card, despite the other option offering superior value.<sup>8</sup> The power of free can be thought of as an emotional hot button – a source of irrational excitement that can be critical in persuading a consumer to make a purchase decision.

While certainly not a definitive list of every bias in play, the set of six represents several of the most powerful principles identified in the literature, all of which are suitable for testing at scale. It also has the advantage of covering implementations that range from simple copy changes to more complex merchandising and logistical decisions.

## What Google's Experiments Revealed

After testing whether people would switch brands when they were simply offered an alternative the next series of experiments focused on how people responded to the six biases.

In nearly every case, **social proof** (expressed as three-star versus five-star reviews) proved to be the most powerful behavioural bias, having either the largest or second-largest effect in 28 of the 31 categories we tested.<sup>9</sup>

**Category heuristics** are powerful and relatively simple to implement. For example, in Google's simulation, they achieved the largest or second-largest effect in 14 of 31 categories. In the scientific literature, category heuristics are defined as shortcuts or rules of thumb that help people make decisions –

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<sup>8</sup> Ariely, D. (2008). Predictably Irrational: The Hidden Forces That Shape Our Decisions. Harper.

<sup>9</sup> In each instance, different average review scores between three stars and five stars were compared with the total number of reviews for each brand remaining equal.

vital pieces of information that help clarify our options, such as the amount of memory in a laptop or the number of carats in a diamond.

Although the simulation shows it to be less powerful than its close cousin, social proof, **authority bias** is still a very effective way to reassure shoppers through citation of awards and expert reviews. This proved particularly effective in categories where consumers might feel at a disadvantage through lack of domain-specific knowledge, such as home furnishing, home improvement, and electronics.

**Scarcity** messaging is perhaps one of the more immediately recognisable executions of behavioural science in the list. However, in Google's simulations, it was most often the least effective bias. While it can be effective as a clinching factor during final evaluation, for exploring shoppers, scarcity could feel restrictive and provoke a negative reaction.

Giving something away isn't always the sole discretion of the marketing department, so capitalising on the **power of free** will probably involve buy-in from other departments such as finance and merchandising. However, the effort is likely to be rewarded, as Google's simulation findings show that the power of free can be a major influence on behaviour, having either the largest or second-largest effect on transfer of preference in 18 out of 31 categories. While handing out freebies and upgrades worked well with expensive transactions, the power of free also proved itself with lower-cost, everyday purchases. A buy-one-get-one-free (BOGOF) offer was the second most effective expression of a bias in transferring brand preference.

**The power of now** did not make a huge difference. The immediate gratification of rapid delivery wasn't a huge difference-maker in the simulation.

## Supercharging the 6 Biases

The most insightful aspect of the Google experiments was the results when they applied strong expressions across all six biases. The results were impressive. A brand was able to take a full **90% of preference away** from the first-choice brand when supercharged with all six biases.

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