

INTERPRETING NONCONSCIOUS DATA

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INTRODUCTION

Good research reports require the synthesis of multiple data sources to get to the big picture conclusion. This report is no different; drawing from a handful of exceptional thought leadership articles on the topic of nonconscious research from Allan Froman (Vice President and Consulting Partner at IDC), Elissa Moses (CEO of Ipsos Neuro and Behavioral Science Center), and Christina Luppi (Manager of Business Operations for Sentient Decision Science). I have synthesized it with some of my own previous writings on the topic, as well as fresh thinking on the latest trends and science. The result is a holistic view of the current state of nonconscious measurement with a focus on the use cases in market research. While representing the best thinking from some of the foremost experts in the field, it also is a wholly unique curated vision that I think you'll find informative, provocative and inspiring.

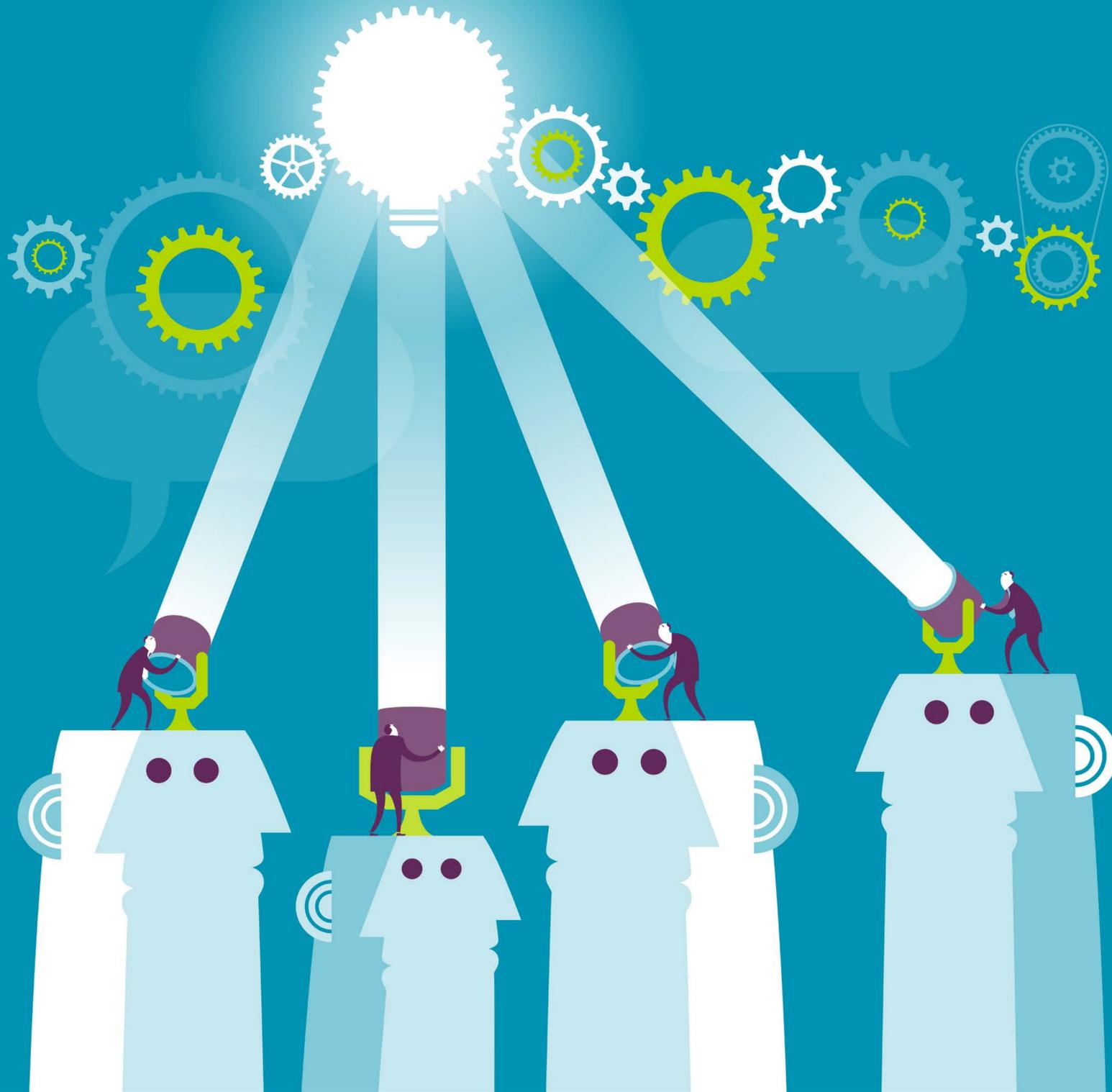
Thank you to Allan, Elissa and Christina for allowing me to build from your contributions to make something that is (hopefully) greater than the sum of its parts. Thanks to L&E Research for asking me to create this, and thank you, the reader, for taking the time to read it.

- Leonard Murphy

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MAKING THE NONCONSCIOUS KNOWN



"Eighty to ninety percent of our behavior is determined by our subconscious mind. The problem market researchers face is that they communicate with the conscious mind of consumers."

– Ralph Poldervaart, Advisor - Motivaction NL

The market research industry is approaching an alarming crossroads. On one hand, DIY tools like SurveyMonkey and Google Consumer Surveys (GCS) have become the subjects of well-deserved attention and kudos, with the former earning a \$1.4 billion valuation last year and the latter receiving a boost from Nate Silver, who praised GCS as more accurate than many traditional polls in the last presidential election.

Today, anyone – literally, anyone – can easily create a free survey and even find sample for a modest sum. DIY is taking off, and research firms are left vying for work on more complex studies that necessitate their expertise and scale. Client-side researchers are equally challenged, as budgets dry up and internal clients expect insights that are faster, cheaper and actionable.

But there is also a growing consensus that consumers cannot always accurately tell us what we want to know; for example, why they selected a certain product or brand. The explosion of behavioral economics books like

Predictably Irrational and *Thinking, Fast and Slow* has codified the fact that consumers are highly emotional and make decisions for reasons that are often not accessible to their consciousness and, by extension, not discernible through classic market research techniques.

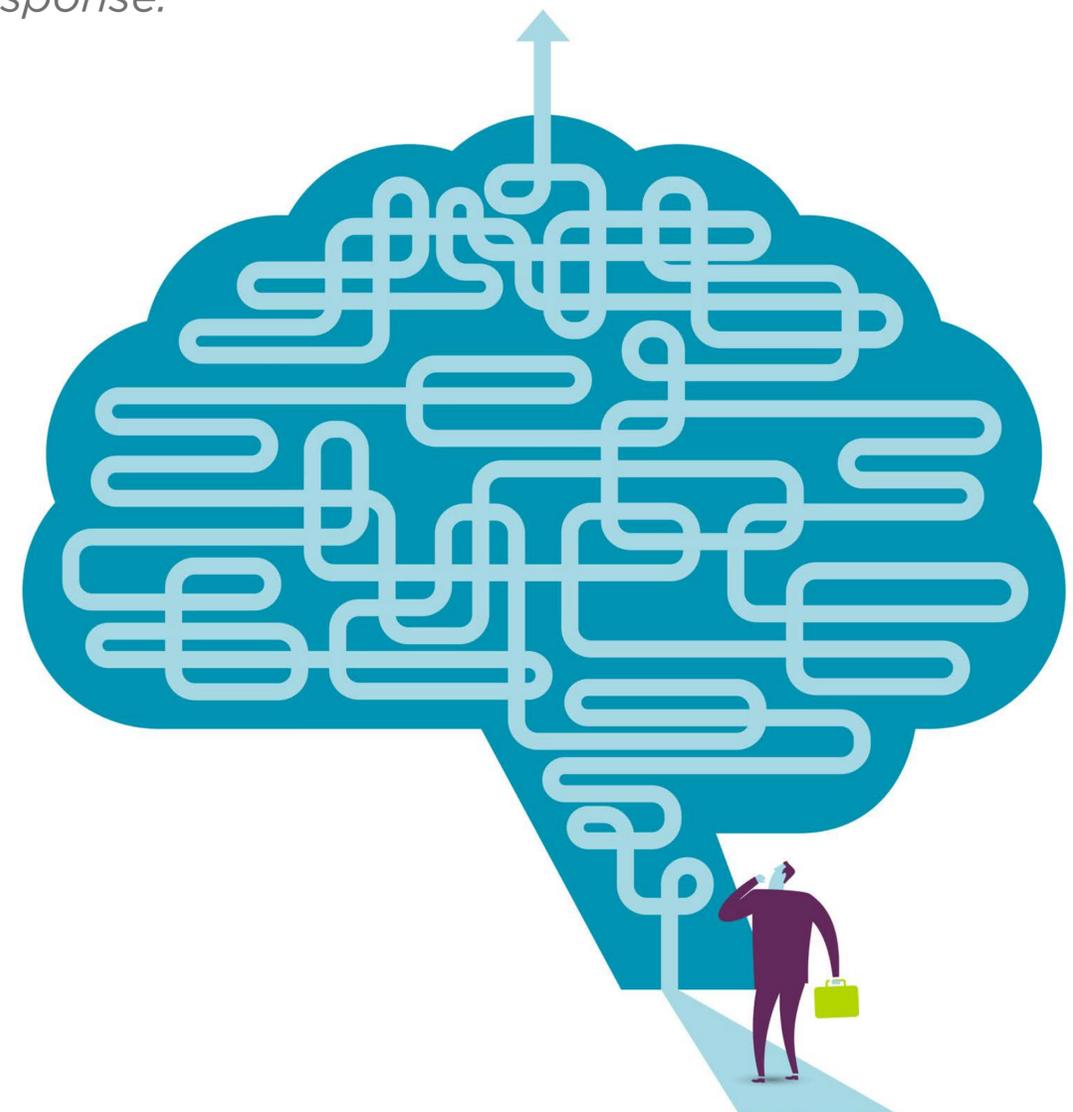
C-level executives now talk about System 1, which demonstrates that what was once the domain of psychologists and academics – namely, the premise that consumers are often driven by nonconscious triggers – has officially reached a tipping point and is now part of mainstream business cognizance.

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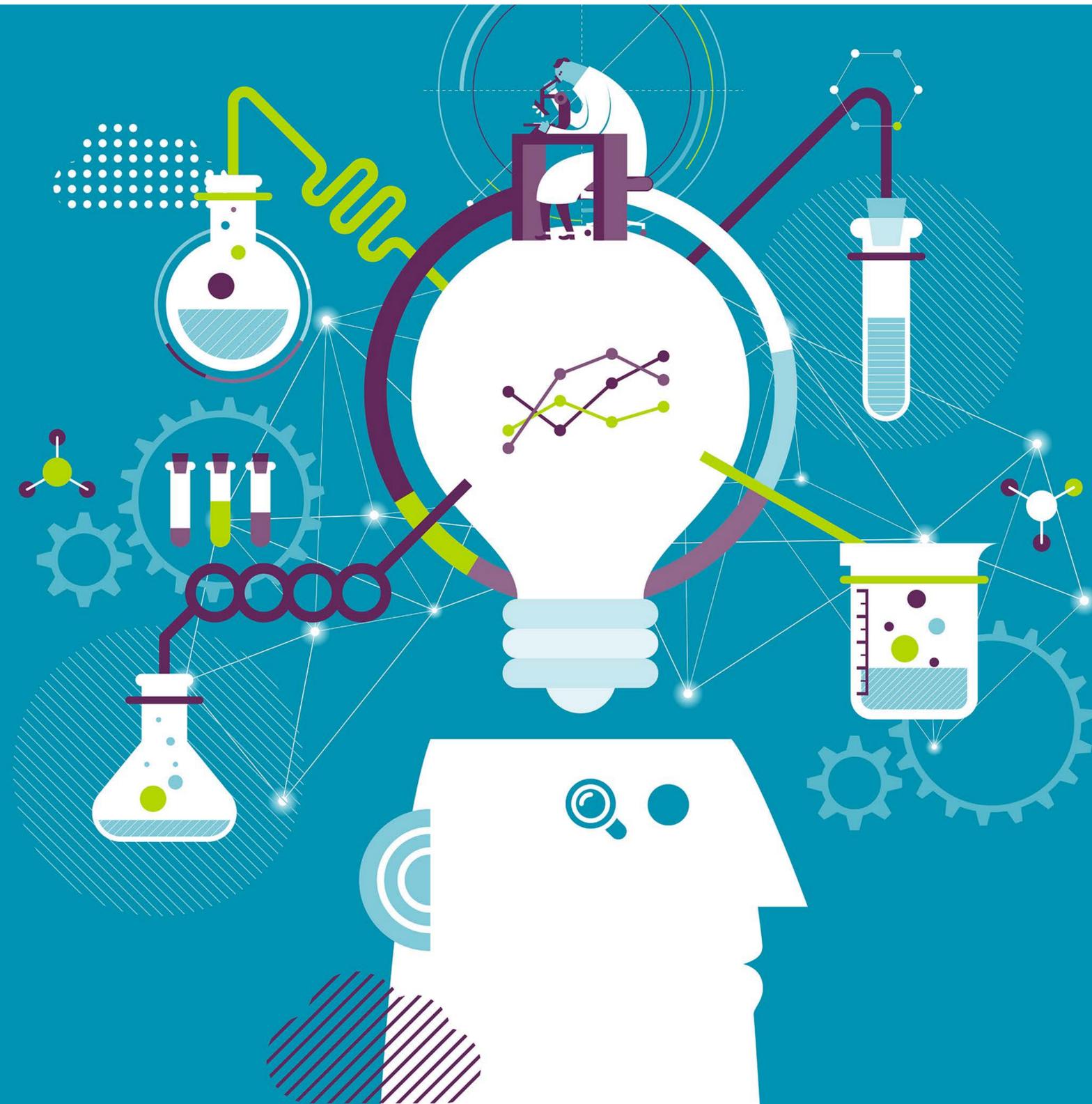
Amidst all this disruption, the utilization of “applied neuroscience” (also called “neuromarketing” or “nonconscious measurement”) for commercial research continues to be a growing trend for pursuing consumer insights. For our purposes, the term “applied neuroscience” encompasses all techniques that seek to tap into non-rational, automated thinking. An entry from Wikipedia provides a more formal overview:

Neuromarketing is a new field of marketing that studies consumers’ sensorimotor, cognitive and affective response to marketing stimuli. Researchers use technologies such as functional magnetic resonance imaging (fMRI) to measure changes in activity in parts of the brain, electroencephalography (EEG) to measure activity in specific regional spectra of the brain response, and/or sensors to measure changes in one’s physiological state (heart rate, respiratory rate, galvanic skin response) to learn why consumers make the decisions they do, and what part of the brain is telling them to do it.

Marketing analysts use neuromarketing to better measure a consumer’s preference, as the verbal response given to the question, “Do you like this product?” may not always be the true answer due to cognitive bias. This knowledge helps marketers create products and services designed more effectively and marketing campaigns focused more on the brain’s response.



NONCONSCIOUS MEASUREMENT IS GROWING



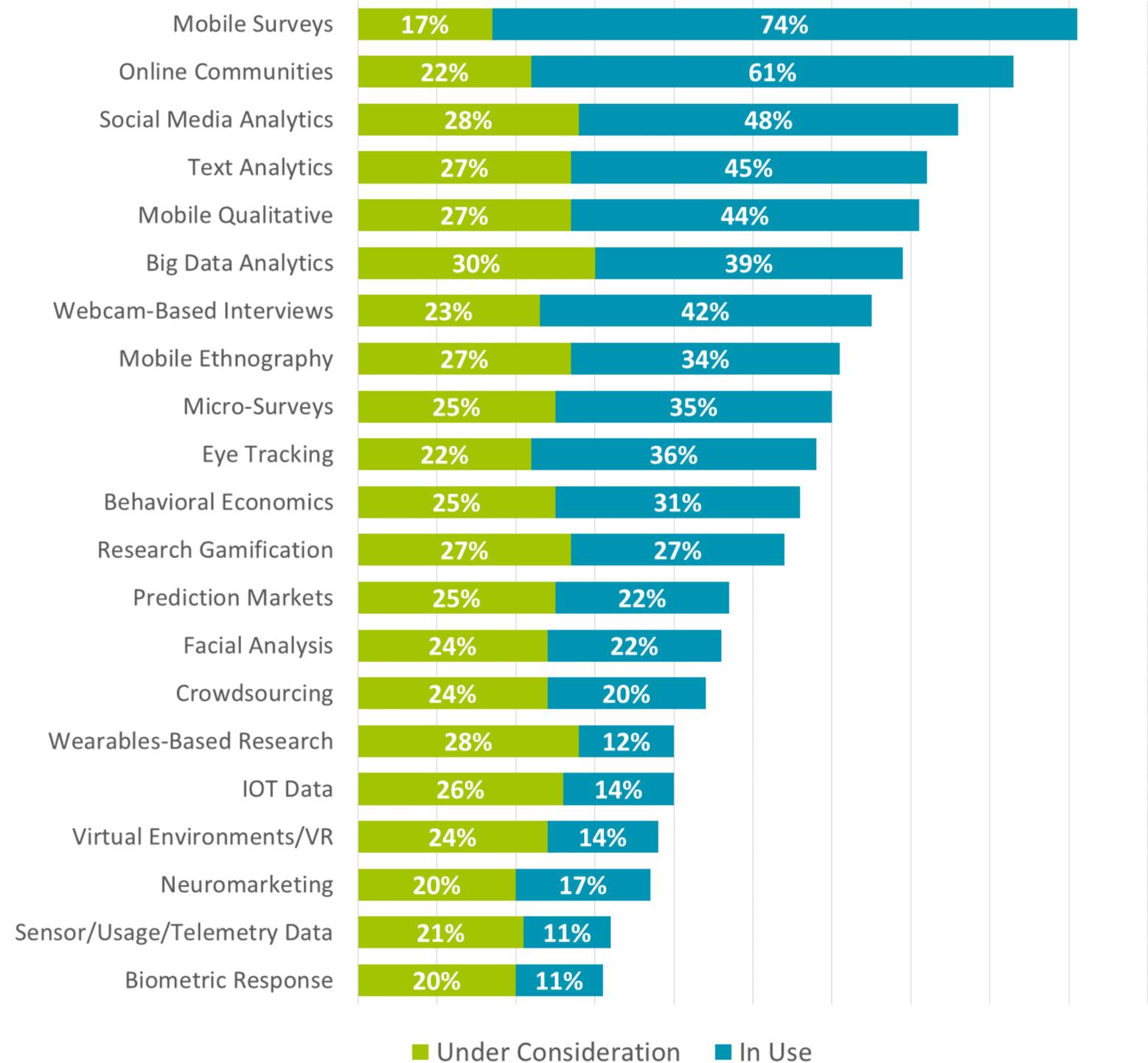
"While we like to believe buying decisions are made consciously and rationally, they are far more usually made subconsciously and emotionally."

– Ian Addie, R&D Director - Nunwood

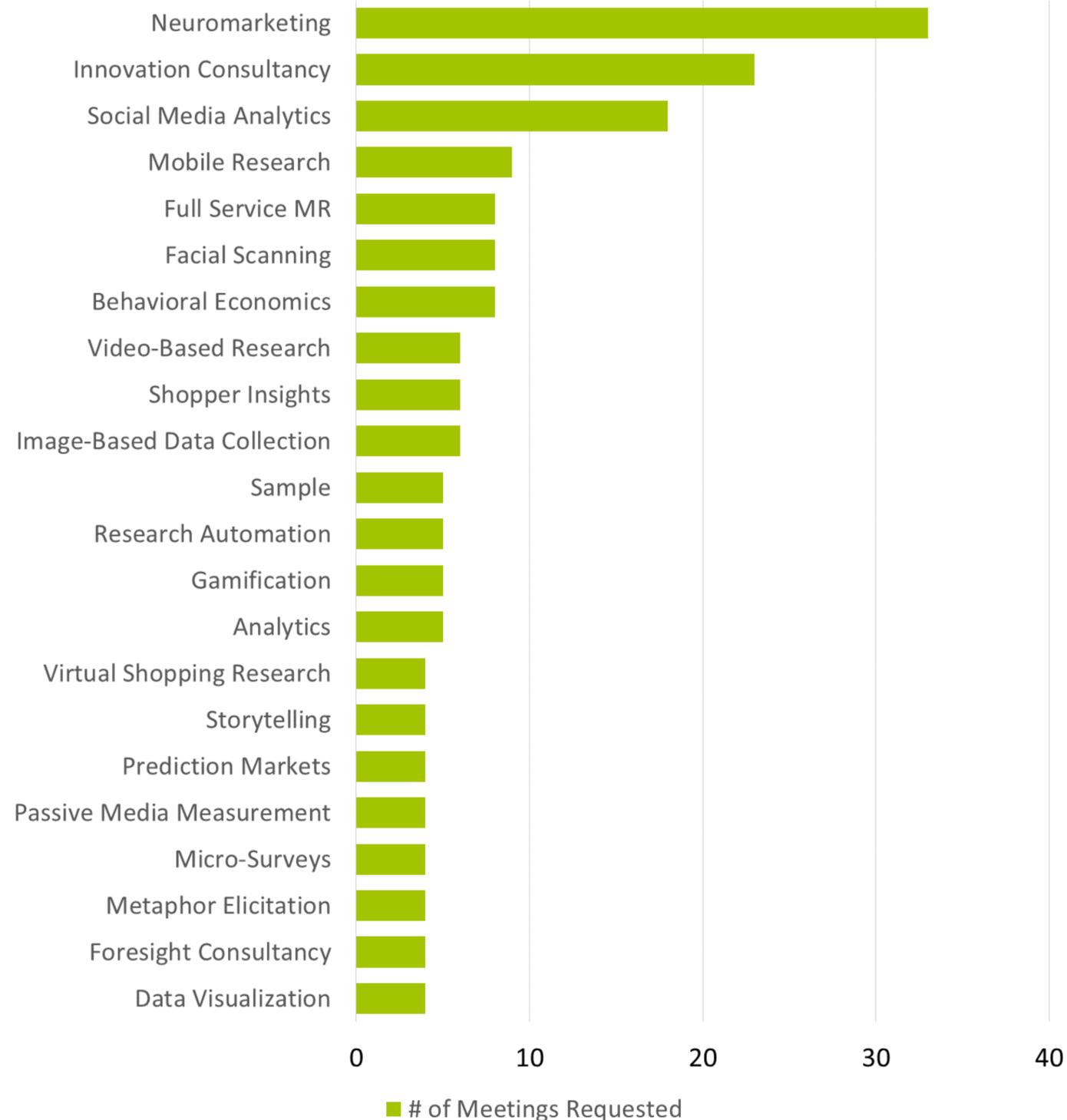
Neuroscientific methods have reached a new level of ease, affordability and added value for integrating into traditional research, which means that marketers can have access to the unconscious drivers of decisions and behavior without having to radically change course or burden their budgets. Applied neuroscience is perhaps the greatest research advancement of our lifetimes and continues to unfold with new developments and scientific discovery.

The [2016 GRIT Report](#) labeled neuromarketing as a “niche” method since only 17% of respondents currently report using it (“crossing the chasm” of new product adoption into the early majority for the first time in 2016).

Adoption of Emerging Methods



Requested Meetings at IJeX by Supplier Type



But the tide may be turning. A recent [GreenBook blog post](#) notes that interest in nonconscious techniques is high. According to the post, the most highly coveted interviews requested by buyers of research and investors at IJeX were with neuromarketers—by a large margin.

The growing attention being given to neuromarketing by corporate marketers is absolutely in line with other trends impacting market research:

- ▶ Client demand for faster, more actionable insights
- ▶ Drive to understand consumer behavior via observational techniques vs. thoughts and intentions
- ▶ Desire to utilize multiple data points to produce true insight into key drivers of the consumer experience

However, there is still much debate about the interpretation of this data and what it tells us.

USING NONCONSCIOUS DATA



"In Neuromarketing, there is no $E=MC^2$ equation."

– Richard Thorogood, Global Head of Consumer & Market Insights - Colgate-Palmolive

This is a deeply technical subject, and there are as many opinions about best practices, optimal methodologies and utilization of the results as there are people involved in the industry. The good news is that in most cases you don't have to choose traditional methods over neuro methods; the synthesis of multiple approaches can deliver more value than any one approach can.

Often, the most powerful neuro results are obtained when the “head and the heart” – meaning conscious and nonconscious or rational and emotional – are not in agreement. This sometimes frightens traditional researchers at first because they ask, “Which data should I believe?” The answer is to believe both, because both are true, representing two different but valid functions of the brain.

Isn't it good to know when consumers are only paying lip service when they say they like an ad because they really like the brand and are being kind with their ratings? Or that they wouldn't definitely buy something

because it seems like an unnecessary purchase, and yet they are totally turned on by its design? Neuro provides hope when it is deserved and tempers overly optimistic implications when they are unrealistic. In that regard, neuro is a bit of a truth detector that gives all tested stimuli a sort of “second chance” if it deserves one and weeds out the phony performers.

Every day, more and more researchers are looking at neuro and behavioral science results integrated with survey results and spotlighting the insights from both data sets to provide comprehensive understanding of consumer behavior.

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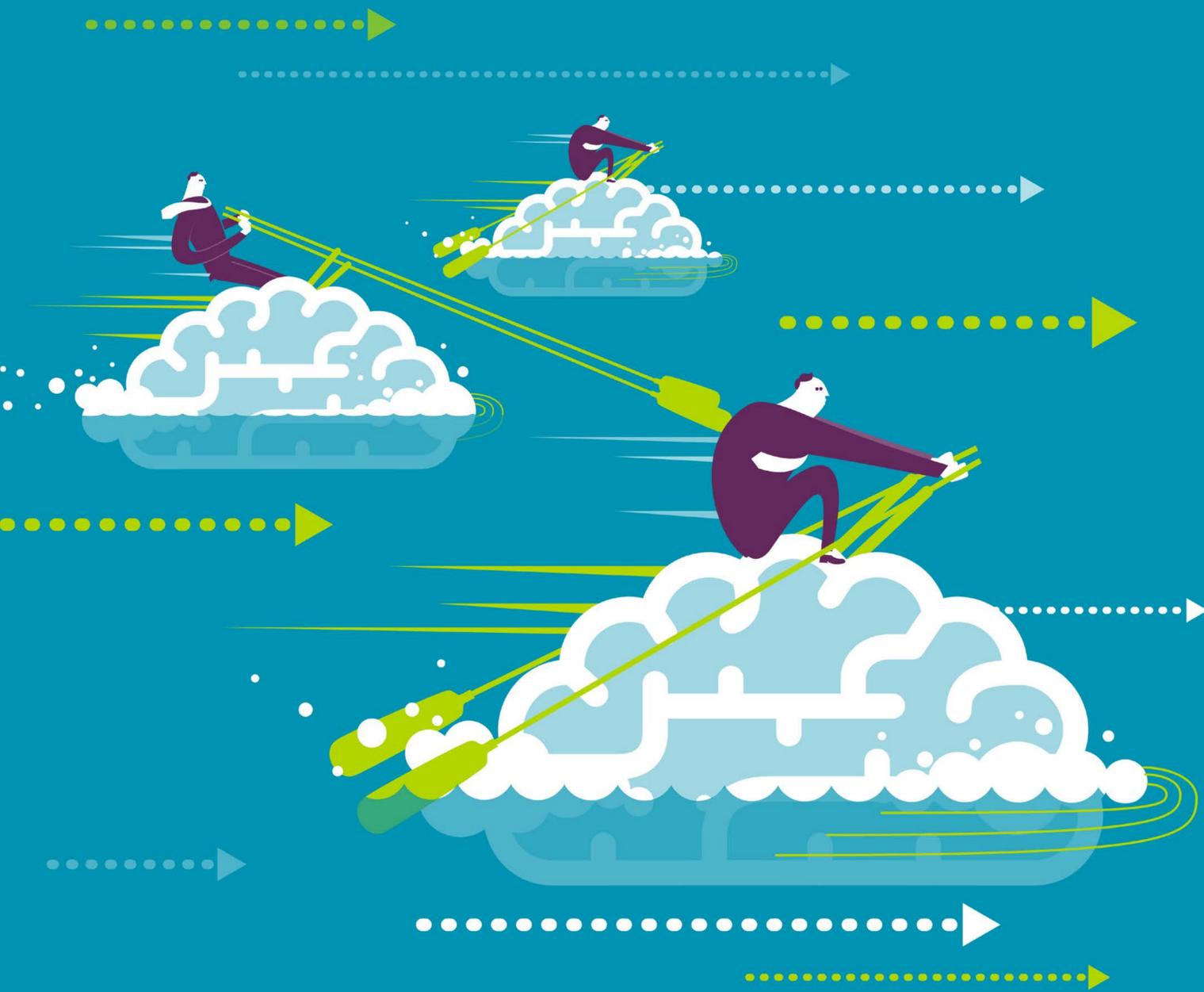
Ultimately, this openness to new methodology is driven by a few key business realities:

- ▶ **Pragmatic business realities often force science to adapt.** Whether wet or dry conductivity is best or not, ultimately the solution that is scalable and cost effective and delivers valid results within an acceptable margin of error wins.
- ▶ **For neuromarketing to go mainstream, it has to go mobile to allow for real-world observations.** That means the devices have to be simple, intuitive and, yes, even aesthetically appealing for broad consumer use. It is up to the supplier to determine a method to account for artifacts in the data as a result of this business need.
- ▶ **Neuromarketing can be used as a quantitative measure just like heat maps or click data, or it can be directional like sensory or qualitative concept testing.** Both are valid approaches, and both fit within the traditional realms of market research. The result is more data to help guide decisions. By itself, neuromarketing does not replace other methods.

- ▶ **Neuromarketing helps researchers understand the difference between what people say and what they do, but it needs to be applied at a macro-sample level to be a projective indicator of broad behavior.** Certainly, the data supports the conclusion that the science is valid, but small sample sizes don't support broadly projectable results, which is why most of the suppliers in the space are focused more on testing projects.
- ▶ **Hybrid models may increase effectiveness.** Combine EEG, eye tracking and a predictive market and you get better results. Combine sensory testing designs with biometric measurements and you get greater insights. Experimentation along these lines will be the key to long-term success of the segment.

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DRIVING BUSINESS IMPACT



“Yes, the information is interesting. How do we know this is better than what we were using? Does it give us more business impact than what we had before? This is a difficult test for emerging technology.”

– Nick McCracken, Global Strategic Research Manager - Ford Motor Company

Unless the actual business impact of neuroscientific approaches is validated, there is not going to be long-term adoption of these methods or long-term change in the market research industry. Standing on the shoulders of science can only make the industry stronger.

Automating the science and making it accessible to the entire industry will lead to broader adoption and greater impact. Demonstrating the business impact of these innovations will ease the interpretative concerns of clients. And that is how neuroscience will move into the early majority.

EEG, fMRI, metaphors, galvanic skin response, eye tracking, implicit measures: While the sheer number of techniques is exciting, the field still feels a little like the Wild West. Neuroscience is no panacea, nor is it the right tool for every research question. It is still in the early stages and the excitement should be married with methodological and academic rigor to put clients at ease and help inform the industry. The ARF has taken

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steps in this direction and noted that fMRI is the “gold standard” for advertising research. However, many more such validation studies and proof of business impact and replicability of results are needed to completely cross the adoption chasm.

Despite these challenges and the heretofore-slow penetration of early EEG and fMRI neuromarketing applications in market research, we are entering an era where alternate approaches like implicit techniques, facial coding, biometrics via device sensors, voice and text analytics, and, yes, even EEG readings, will become highly scalable, cost-effective and ubiquitous in market research. It is happening already, and with most consumer electronics devices having these capabilities built into them, the trend will only increase. Research will no longer have to rely on recall and stated intent or perceptions, but will truly become behaviorally evidence based.

That vision is one that is sought after by client-side researchers, and anyone involved with market research

would do well to begin educating themselves on what this emerging future looks like and begin the shift to embedding it in their toolkit now.

Rather than trying to compare apples to oranges in a rapidly evolving and highly fragmented field, perhaps we should focus on the results being delivered. There is no question that neuromarketing works. Now we need to understand how best to use it. All of the models have been validated in hundreds of real-world studies, and corporate researchers don't spend the type of money these projects cost without getting bang for their buck. That point ends the debate and opens the door to a very constructive and practical dialogue instead: How do we maximize the value of this technology?

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