

Why Augmented Reality Needs a Reality Check

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ABSTRACT

Augmented Reality is widely regarded by industry insiders as having tremendous commercial potential and groundbreaking implications for how humans interact with the world, technology, and each other. This current high level of enthusiasm has many positive ramifications, but also raises the risk of reducing the AR industry's sensitivity to real consumer needs by supplanting them with our own internal visions for the future.

We suggest that striking the right balance between marketing and innovation within our industry will be critical to our ability to create compelling value for consumers. This balance, we assert, includes a stronger focus on "marketing as science" and "innovation as art," contrary to common stereotypes of these two basic business functions.

I – INTRODUCTION

In 2009 a profound shift of focus occurred within the augmented reality community, moving from academic research toward commercial products. Led by the release of Wikitude for Android in late 2008, a steady stream of AR browsers have appeared over the last year. These have served to bring the exciting possibilities of augmented reality into public consciousness for the first time. For a variety of reasons, however, the usefulness of AR applications has not lived up to consumer expectations in many cases. As a result, the total size of the AR market remains quite small. Despite this, entrepreneurs driven by a strong belief in the possibilities of AR as a revolutionary technology are entering the industry at a rapid rate, and larger players are beginning to show signs of interest. As awareness of AR spreads, there is an increasing need for a better understanding of the challenges the industry faces as a whole as it works to bring a variety of new AR products to market.

One of these challenges is born out of what would at first appear to be a uniquely positive aspect of the industry: an unrelenting sense of excitement and passion for AR and its ability to change the world. While we agree that augmented reality has many astounding implications, we posit that until the AR industry becomes more customer-centric (vs. technology centric) we will have a surplus of AR products that have a strong "wow" factor but provide

little real value. This paper outlines a basic conceptual framework for understanding the role of marketing and innovation within the AR industry, and why striking the right balance between the two is so critical to the creation of lasting value.

II – THE MEANING OF VALUE

While there are many ways to define value, we will suggest a definition here that works well within the context of business:

Value is the benefit a customer receives as the result of purchasing a product or service.

The definition offered above intentionally implies that a technology has no inherent value outside of a transaction with a customer. In other words, value is not a measure of a product's speed, ease of use, coolness etc. It is solely a measure of how willing a customer is to pay for it. Thus, the creation of value is synonymous with the creation of a customer.

The question of identifying value is particularly difficult in the case of technologies like augmented reality, in which potential applications are numerous but concrete markets have not yet been clearly defined. In such scenarios it is exceedingly easy to get swept away by hype. While passion and love for a technology are almost always viewed as positive traits in business, they can also have the effect of decreasing sensitivity to customer needs. The risk is that as an industry over-enthusiasm for AR technologies leads us to focus our development efforts around our own inclinations and vision of the future rather than around our customers, impeding the creation of lasting value.

III – MARKETING AND INNOVATION

With this in mind, we will introduce a quote from the late Peter Drucker, renowned management theorist and self-ascribed social ecologist, that will help guide the rest of this discussion:

"Because the purpose of a business is to create a customer, the business enterprise has two—and only two—basic functions: marketing and innovation."

Peter Drucker

In order to help elucidate Drucker's claim, we propose that a somewhat unorthodox definition of "customer" is needed. A customer is commonly thought of as a person; someone who buys a product or service from a business. However it is far more useful in this case to think of a customer as *a stable pattern of human behavior*. "Creating a customer" then is much less about selling a product than it is about spurring a pattern of behavior that predictably results in an exchange of value.

What Drucker is driving at is that the business activities of marketing and innovation are both necessary and sufficient for the creation of value. This immediately raises the question of what exactly marketing and innovation are. Building on our approach to the idea of a "customer" proposed above, we will suggest definitions for marketing and innovation that we feel are both widely applicable and appropriate to the current discussion. Marketing, we submit, consists both of *"understanding human behavior and communicating value."* We will define innovation, by contrast, as *"a stimulus for new patterns of behavior."*

The question of how marketing and innovation work together to create value is relatively straightforward then. If we begin with marketing, it is easy to see that understanding behavior patterns and their related incentives is essential to identifying un-served needs. Once a need has been identified, an innovation, technological or otherwise, is introduced that is meant to spur a new pattern of behavior and result in a transaction. Finally, the value of the innovation is communicated back to the customer; this constitutes the second aspect of marketing.

IV – SCIENCE OR ART?

The key to mitigating the risks created by over-enthusiasm for AR technology lies in finding a balance between marketing and innovation and understanding the interplay between them. As is the case with most technologies in the early stages of commercialization, the AR industry is currently heavily weighted towards innovation—augmented reality unquestionably has the potential to spur novel new patterns of human behavior, but has yet to result in a significant market. To complete the equation, however, we need far better knowledge of existing patterns of behavior and what key needs AR is best equipped to address. How do we accurately identify these needs and communicate the value of augmented reality to potential customers? What do potential customers actually want?

One risk that the AR industry faces as it tries to answer these questions is that of misconstruing the basic character of marketing and innovation. Innovation is often thought of as a scientifically driven process: an engineer works in a lab synthesizing molecules or creating the latest and greatest tracking technology for ISMAR's annual competition. Marketing on the other hand is usually thought of as a creative process: colorful multimedia advertising and smooth social prowess win over customers for the company. In many instances, and especially within a burgeoning industry such as augmented reality, precisely the opposite should be true.

In an innovation heavy scenario such as the one we find ourselves in, what is missing is not interesting ways to communicate the appeal of AR to potential customers; it is real knowledge about how AR corresponds (or doesn't!) to existing human needs and behavior patterns. The goal of the "understanding human behavior" component of marketing is not to generate ideas or possibilities, but exactly the opposite: narrow down the field of possibilities until the "correct" one, the real human need, has been identified. Thus, the act of seeking to understand a customer's needs requires a careful and systematic approach that in many ways is far more akin to science than art.

Innovation, meanwhile, should in many ways be the more creative of the two processes. Because innovation necessarily requires a leap of faith, it can (and should) involve the synthesis of ideas from many different spheres. Furthermore, the process of innovation does not end with the introduction of a new technology. Innovation involves the entirety of the commercialization process and includes the creation of *any* new tool meant to spur particular patterns of behavior. This is inherently a creative process.

V – CONCLUSION

The challenge ahead lies in balancing the "art" of innovation with the "science" of marketing. Making this conceptual shift involves not only a reassessment of what constitutes value with respect to augmented reality, but being open to alternative approaches and hybrid technologies that don't necessarily meet our expectations of "pure" AR technologies. Approaching marketing as science and innovation as art will help the AR industry to ultimately find the best fit between augmented reality and people's lives. This constitutes a reality check in the full sense of the phrase.