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Examining Messaging Strategies of Virtual Reality Companies on Instagram

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To the Graduate Council:

I am submitting herewith a thesis written by Brian Galloway entitled "Examining Messaging Strategies of Virtual Reality Companies on Instagram." I have examined the final electronic copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Communication.

John Eric Haley, Major Professor

We have read this thesis and recommend its acceptance:

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Accepted for the Council:

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Examining Messaging Strategies of Virtual Reality Companies on Instagram

A Thesis Presented for the
Master of Science
Degree
The University of Tennessee, Knoxville

Brian Galloway
August 2021

ABSTRACT

This study examines the messaging strategy and executional strategy utilized in the virtual reality industry on Instagram through the lens of Taylor's Six-Segment Message Strategy Wheel. Content analysis examined a total of n=942 posts which were coded for high level message strategy, specific message strategy, and executional strategy. Engagement data was also recorded. Ritual-view messaging strategies were found to be utilized most often, with Social and Sensory-segment strategies used most frequently in terms of segments in Taylor's model. In terms of executional strategies, User Image, Brand Image, and Use Occasion strategies were seen most frequently. Ego and Social segment message strategies generated the most engagement on average, and Preemptive and Unique Selling Proposition executional strategies received the most engagement on average. Implications and future research suggestions are discussed.

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CHAPTER ONE

INTRODUCTION AND GENERAL INFORMATION

Virtual reality has been a pipe dream of the technology sector for decades, but historically, bringing products to market has been difficult. Today's technology is finally enabling virtual reality experiences at a large scale. The modern implementation of virtual reality is relatively new — Oculus, one of the industry's current market leaders was founded in 2012. Some of the first viable consumer products were launched in 2016, though the field has grown quickly. In 2019, the virtual reality industry grew to drive \$3.3 billion in revenue, and some projections predict a total market size of \$5.7 billion by 2023 (Superdata, 2020).

Furthermore, some early research has shown that consumer acceptance of virtual reality is relatively high, even in populations with initial aversions to the technology itself (Huygelier, 2019). The conditions are ripe for VR to be a breakout success.

An examination of the virtual reality industry is novel and interesting for two main reasons. Firstly, while this product category is in its relative infancy, it is projected to grow significantly in the coming years. In 2019, at least 115.9 million consumers used VR monthly, and this number is expected to grow to 155.9 million monthly users by 2022 (Petrock, 2020). Virtual reality has shown promise in contributing to fields like psychology (Rosa & Breidt, 2018), education (McGovern, Moreira, & Luna-Nevarez, 2020), and healthcare (Silva, Southworth, Raptis, & Silva, 2018). However, achieving this potential will require strong

consumer adoption of the technology. Understanding the messaging appeals utilized and their effectiveness will allow practitioners to create more persuasive and virtual reality advertisements. Secondly, advertising that effectively communicates the benefit of virtual reality technology is difficult to create. The technology used to drive these experiences relies on specialized lenses and displays to create a false sense of depth for the user, but this effect is only viewable when a user is experiencing a device firsthand. This represents a unique challenge for practitioners in the field and understanding the state of play throughout the field will help the industry create more impactful advertisements in the future.

Most research on virtual reality focuses on the impact of virtual reality technology and experiences. Some research has focused on the factors that drive consumer acceptance of virtual reality. To date, no studies have examined the strategic communication practices of the industry itself. This exploratory study uses content analysis to examine the message strategies and executional strategies utilized in social media communications throughout the virtual reality industry. Understanding the communication practices of virtual reality companies and the effectiveness of their strategies can help researchers and practitioners understand what's driving the industry forward.

CHAPTER TWO LITERATURE REVIEW

Virtual Reality

The modern permutation of Virtual Reality is the culmination of decades of interest from technologists and computer graphics experts. Computer graphics pioneer Ivan Sutherland saw virtual reality as a real-time representation of the real world that can be manipulated and experienced by an observer in a realistic way (1970). This early definition is consistent with the modern implementation of virtual reality technology. Boyd and Koles pulled together prior research in search of a definition that can be used when discussing virtual reality in a marketing and advertising context:

Virtual reality incorporates computer-generated, interactive and highly vivid environments that enable the user to achieve a state of immersion through the ultimate experience of telepresence and facilitate engagements in human encounters that are multi-sensorial, dynamic and resemble the user's perception and understanding of the real world (2016).

As discussed by Manis, many definitions of virtual reality are generally broad and encompass the entirety of hardware, software, and experiential components of VR. (2016). This study focuses on virtual reality hardware and how it is presented to consumers. In practical terms, the virtual reality market is smaller than other consumer technology segments but is expected to grow significantly in the

coming years. VR companies sold 4.93 million headsets in 2020, and some forecasts expect this number to grow to 6.1 million in 2021 alone, and 14.31 million per year by 2024. (Boland, 2021).

The specific hardware configurations of virtual reality products have changed over time as the technology has developed. The first consumer-ready modern virtual reality headsets were introduced to the market in 2016 (Oculus, 2015; HTC, 2016). These headsets relied on a cable tether to a computer to drive the display hardware and project content to the device. In 2021, virtual reality hardware has matured, and the capabilities have changed. Some products, such as the HTC Vive Pro line of headsets, still rely on a tethered connection to a computer. Others, including the Oculus Quest and Vive Cosmos, include all of the instrumentation, graphics hardware, display technology, and tracking technology integrated without the need for a tethered connection (Oculus, 2020).

Researchers have used the technology acceptance model (TAM) to study consumer acceptance of virtual reality, but results are somewhat mixed in terms of developing a strong framework for what drives attitudes towards VR and intention to use VR. Manis and Choi proposed an extension of TAM – the virtual reality hardware acceptance model (VR-HAM), which builds upon TAM by including perceived enjoyment and adding four antecedents to the acceptance of VR hardware (2019). Their study utilized a structural equation modeling analysis to determine that consumer perception of usefulness, enjoyment, and ease of

use were positive predictors of future purchase intention for virtual reality hardware, with enjoyment acting as the most significant predictor (Mania & Choi, 2019). Other researchers have also attempted to extend the technology acceptance model to include virtual reality. Sagnier et al. concluded that perceived usefulness was the strongest predictor of intention to use virtual reality products, but that ease of use did not have a significant impact (2020). Lee, Kim & Choi found that perceived usefulness improved consumer attitudes toward VR but did not impact intention to use (2019). Perceived enjoyment was shown to directly impact intention to use in a positive fashion. Their research also showed that ease of use did not have a positive relationship to a consumer's intention to use virtual reality products. Early research also shows that consumer acceptance of virtual reality technology is impacted heavily by a consumer's usage of a VR device. Huygeiler found that older adults' acceptance of the technology was positively impacted by a VR session (2019).

Virtual Reality Advertising

Despite the market's size, rate of growth, and consumer acceptance of virtual reality devices, research on virtual reality advertising is underdeveloped at best. Most research on virtual reality and VR devices concerns itself primarily with the use of VR devices and the effects of how the content is implemented on the platform. Studies examine potential applications of the technology (Kim & Ko, 2019), optimizing virtual reality experiences (Tammy, 2017), or examine

consumer behavior within a VR environment (Xu, Demir-Kaymaz, Hartmann, Menozzi, & Siegrist 2021). Current research around virtual reality examines the product's potential applications, but does not discuss how the products themselves are positioned or discussed. This represents a gap in the research that could be valuable for advertisers, virtual reality companies, and researchers alike.

Some previously mentioned studies offer insights into how virtual reality companies can position their products in an effective way. Manis & Choi concluded perceived usefulness and ease of use had the largest impact on consumer intent to use a VR device, so VR hardware companies should capitalize on hedonic product attributes to attract consumers while focusing on improving VR's usefulness and ease of use (2019). Lee, Kim, & Choi's examination of consumer attitudes toward VR integrated an examination of social ties and social interaction to the TAM model and virtual reality (2019). Perceived enjoyment positively impacted consumer attitudes and consumer intention to use virtual reality, and the study also found that social ties and social interaction strongly influenced perceived enjoyment of the device. Thus, social interactions and social ties can strongly influence consumer intention to use virtual reality devices. The researchers suggested that virtual reality companies should utilize social-focused messaging strategies and highlight the social interactions possible through the use of the device.

Taylor's Six-Segment Message Strategy Wheel

Message strategy refers to the idea that a variety of advertising and communications tactics can be utilized depending on the specific characteristics of a consumer segment or product category. Taylor (1999) built upon previous scholarship to define the Six-Segment Message Strategy Wheel which codified six different message strategy segments that can be implemented in strategic ways depending on product category and consumer segment characteristics. Taylor's model posits two essential advertising approaches: the transformational, or ritual view and informational, or transmission view. Ritual view advertising strategies include Sensory, Social and Ego, while Transmission view strategies include Routine, Acute Need, and Ration.

The Ritual View

The Transformational view, also known as The Ritual view, characterizes communication as a way of maintaining a shared culture across a group of people (Taylor, 1999). Strategic appeals in ritual view messaging are typically more emotionally driven, attempting to showcase a product in terms of how it would make someone feel, how it feels to use, and how it connotes status to the product's user. Ritual view communication strategies are defined as sensory, social, and ego, arranged from lowest to highest levels of emotional involvement.

Sensory

The Sensory segment provides consumers with "moments of pleasure" based on any of the five senses (Taylor, 1999). This segment does not

necessarily have a defined communications strategy but is included in the model due to the commonplace nature of “moments of pleasure” based advertising in the field. This segment is typically seen in food and beverage advertisements.

Social

The Social segment is characterized by the idea that certain products are sold based on their ability to make a statement to others (Taylor, 1999). Appeals in this category are focused on a consumer gaining approval, being noticed by others, or otherwise fulfilling societal expectations through the use of the product. Social-focused messaging appeals are often used in luxury fashion brands.

Ego

The Ego segment is based on the idea that consumer emotional needs are fulfilled by certain products that are ego-focused (Taylor, 1999). Purchase decisions for products in this segment allow the consumer to make a judgement or statement to themselves about who they are as an individual. Examples of Ego-focused messaging appeals are often used in advertisements for luxury goods, or personal perfume and fragrance.

The Transmission View

The informational model, also known as the Transmission view, characterizes communication as a process by which information and messages are distributed (Taylor, 1999). These are primarily information-focused appeals that communicate about a product’s value, features, or how it can fill a need in a person’s life. Transmission view communication strategies are defined as ration,

acute need, and routine, arranged from lowest to highest levels of emotional involvement involved.

Routine

The routine segment is characterized by consumers who make decisions based on rational motives, but do not have a large amount of emotional investment in a product (Taylor, 1999). These are frequently useful products that have a low amount of brand recognition and are sometimes purchased on a reoccurring basis. Dish soap, toothpaste, and laundry detergent are examples of products that typically use routine messaging strategies.

Acute Need

The acute need segment is characterized by time limits placed upon the gathering or deliberation of information on the part of the consumer. (Taylor, 1999). As such, the consumer has an acute need for a product. When consumers are faced with the need to purchase a product quickly, they will frequently choose a brand they are familiar with. Examples of products sold using the acute need strategy are replacement parts across multiple industries, and car batteries.

Ration

The ration segment is concerned with consumers who are rational, calculating, and deliberative in their purchasing decisions. (Taylor, 1999). Desire for information about the product and information-seeking behavior is high.

Ration-based messaging strategies are often used in car and computer advertisements.

Executorial Strategies

Taylor (1999) deepened the model through the definition of creative approaches seen in each of the message strategy segments. Pulling from Frazer's (1983) creative summary and Laskey, Day, and Crask's (1989) creative topologies. These studies place executorial appeals into two categories: Informational and Transformational. Informational appeals include Comparative appeals that focus on direct competition and often mention competition specifically, Preemptive appeals focusing on superiority in a testable metric, Hyperbolic appeals focusing on non-testable claims, and Unique Selling Proposition appeals focusing on a product's uniqueness. (Laskey et al.,1989). Transformational appeals include Brand Image appeals focusing on a brand's personality, User Image appeals highlighting a product's users or target user groups, and Use Occasion appeals that showcase how or when a product should be used (Laskey et al.,1989). Additionally, General-Information appeals focus on information-focused appeals without a strong superiority claim, and General Transformational appeals categorize emotional appeals without a strong selling focus (Frazer,1983).

Theoretical Framework

Taylor's model has been used as a theoretical framework to examine communications in a variety of industries and formats. The model has been used

to examine viral advertising (Golan, 2008), online vaping communities, (Daniel, 2018), changes in financial service advertising during times of economic crisis, (Lee, 2011), direct to consumer drug advertising (Ju, 2015) and cosmetic surgery websites, (Ahn, 2013). These variety of use cases provide support to the use of Taylor's model to examine communications in a digital context.

Research Questions

In general, this study aims to understand what messaging strategies are utilized in the nascent virtual reality industry. Research questions include:

RQ 1: What macro-level message strategies are used most commonly in virtual reality advertising? (Transmission vs. Ritual)

RQ 2: What micro-level message strategies are used more commonly in virtual reality advertising? (Taylor's Message Strategy Segment)

RQ 3: What executional strategies do virtual reality companies utilize?

RQ 4: Which messaging strategies and executional strategies generate the most social media engagement?

CHAPTER THREE

MATERIALS AND METHODS

This study utilizes content analysis to examine how virtual reality companies deploy creative strategy in their Instagram posts. These posts represent a convenience sample gathered from each company's public-facing Instagram presence. Public-facing timeline posts were utilized, as historical advertising databases are not available for social media advertising at this time. Posts from each company were considered starting in January 2016, to coincide with the announcement of the first major consumer-facing virtual reality product. Data was collected from two virtual reality hardware vendors – Oculus (Owned by Facebook) and HTC. Oculus controls 28.4% of the market, and HTC controls 13.3% of the market, making these two companies some of the largest in the standalone and computer-connected virtual reality space (Tsai 2019). Sony's PlayStation VR was not considered, as videogame console-connected VR represents a different segment of the virtual reality market. The specific accounts that were examined include: @oculus and @htcvive. Both video posts and still images were considered.

The code sheet (see Appendix I) was developed by adopting work from previous studies using Taylor's model (Kim, McMillan & Hwang, 2005; Ju & Park, 2015). Each post was given a code for randomization, taking note of the company for organization, and coded for the following attributes:

High-Level Message Strategy: High-level creative strategy – Transmission vs. Ration, or a combination of both strategies. This was coded first before continuing with messaging strategy and executional strategy.

Specific Message Strategy: The advertising strategy present, based on Taylor's model (1999). Coding indicated if any strategies were present based on the six strategy segments including ration, acute need, routine, ego, sensory, and social. As an advertisement may contain either a single or multiple message strategy appeals, a binary scale was used to record all categories seen in the post.

Executional Appeals: Coding for executional appeals is based on is based on a study from Laskey, Day, and Crask (1989) that was integrated into Taylor's model (1999), discussing creative strategy typology. As an advertisement may contain either a single or multiple executional appeals, a binary scale was used to record all categories seen in the post.

CHAPTER FOUR RESULTS AND DISCUSSION

Results

This study is of an exploratory nature. It represents one of the first empirical examinations of advertising and communication strategy for the virtual reality industry. This study examined a total of $n=942$ advertising messages. Of the two companies examined, 561 (59.6%) were from Oculus and 381 (40.4%) were from HTC.

RQ 1

Research question 1 examined the macro-level message strategy utilized by virtual reality companies on Instagram — the transmission view versus the ritual view. The ritual view was used more frequently ($n=589$, 62.5%) and the transmission view was used less frequently ($n=362$, 38.4%), for a total of 100.9%, as some messages contained examples of strategies from both views. Thus, the answer to RQ1 is that the ritual view was seen more frequently throughout the sample.

RQ2

The second research question focuses on the messaging strategies utilized by virtual reality companies on Instagram as defined by Taylor's model. The results are outlined in Table 1, found in Appendix 1. A total of 968 strategies were examined, representing 102.7% of the number of posts examined due to some posts containing multiple message strategies.

Of the six messaging strategy segments, Social was used most frequently (n=262, 27.8%) followed by Sensory (n=215, 22.8%), Ration (194, 20.6%), Acute Need (170, 18%) and Ego (n=127, 13.5%). Routine segment messages were not found in the sample.

RQ3

The third research question focuses on the executional strategies utilized by virtual reality companies on Instagram. N=1206 executional appeals were observed across n=942 Instagram posts, representing a total of 128% of the messages examined. Posts with multiple executional strategies were seen frequently throughout the sample. As seen in Table 2, the Use Occasion executional strategy was seen most frequently, followed by Brand Image and User Image. Comparative executional strategies were not seen in the sample as examined.

RQ4

Question four concerns the amount of engagement generated by messaging strategies and executional strategies. At a high level, content with ritual-view messages received more engagement than messages in the transmission view in terms of both likes and comments. The results are outlined in Table 3.

Examining the mean engagement in terms of likes and comments showcases which messaging strategies generate the most audience engagement for virtual reality companies. As shown in Table 4, Ego-focused messages received the most engagement in terms of likes and comments, followed by Sensory and then Social. Social and Ration-focused messages received a similar amount of engagement in terms of likes, but ration-focused messages generated additional discussion among the audience. Posts using the routine message strategy were not found in the sample.

When examining the number of likes generated by each executional strategy, the preemptive strategy drove the most likes followed in order by unique selling proposition, brand image, resonance, use occasion, user image, hyperbole, general transformational, and general informational.

When observing the average number of comments earned by each executional strategy, results are similar to the results in terms of likes. The data is shown in Table 5. Posts that used preemptive messaging strategies generated the most comments, content that used Unique Selling Proposition generated the second most comments, followed by Brand Image, Resonance, Use Occasion, User Image, Hyperbole, General Transformational, and General Informational.

Discussion

This study is exploratory in nature, attempting to understand how virtual reality companies communicate with consumers through the lens of Taylor's Six-Segment Message Strategy Wheel. This examination of the field attempts to quantify the use of messaging and executional strategies used in virtual reality communications, as well as quantify the amount of engagement generated by each strategy.

First, when examining the high-level messaging strategy utilized by virtual reality companies, the most commonly used strategies came from the ritual view. This shows that from the beginning of VR market until now, companies in the space have primarily focused on building brands instead of calling for specific actions or disseminating information-focused messages to a target population. The reliance on ritual-view messaging strategy could be because virtual reality headsets are relatively high-involvement products as defined in the FCB Grid model (Vaughn, 1980). Purchasing a virtual reality headset requires a relatively significant financial investment (\$300-\$1,200) in a new product category that most people have not utilized in the past. The more frequent use of ritual view message strategies shows that virtual reality companies are positioning their products as Affective, or "feel-learn-do" type products when interacting with consumers.

Examining the specific messaging strategy segments utilized in the sample shows that Ego and Social message strategies were used most frequently, with Social and Ration strategies utilized less frequently, and Acute

Need strategies utilized slightly less frequently than Social and Ration. Routine message strategies were not found in the sample. The lack of Routine messaging is likely because of strategic a misalignment between routine-focused messages and the current state of the virtual reality industry. Routine-focused messages focus on how a product or service can serve a consumer once a habit has been established (Taylor, 1999). The virtual reality market is still in its early stages, and companies in the space appear to be focusing on increasing consumer adoption over incentivizing and showcasing habitual use.

When examining the frequency of executional appeals, transformational executional appeals were used much more frequently throughout the sample. Use Occasion, Brand Image, and User Image strategies were seen most frequently throughout the sample. Use Occasion and Brand Image appeals were frequently seen together. This supports the idea that virtual reality companies have focused on brand-building as a strategic objective.

Interestingly, when examining the relationships between the number of times a message is used and its effectiveness, there is a divergence. Preemptive and Unique Selling Proposition executional strategies were used the least frequently yet were engaged with the most in the sample as examined. This suggests that consumers are receptive to these messages when they're received. It's possible that the companies involved in the sample utilized USP and Preemptive messages at strategically important junctions to reinforce selling points for their product.

Many posts utilized Use Occasion and User Image strategies concurrently in the same advertisement. This could be due to the nature of virtual reality products as a category — showing a target user necessitates showing the product in use. This also fulfills previously discussed strategic brand-building initiatives.

Some results strengthen prior research on virtual reality consumers and acceptance of virtual reality products. Manis and Choi found that a consumer's perceptions of a virtual reality headset's usefulness, amount of enjoyment, and ease of use were positive predictors of attitudes toward using VR and purchase intention of a device (2019). Similarly, Sagnier et al. found that a headset's perceived usefulness was the biggest predictor of a consumer's intent to purchase and use VR products (2020). Ego messaging strategies, focused on a consumer's self-realization in relation to the product, were found to generate the most social media engagement. Sensory messaging strategies, which were the second most engaged-with, frequently focused on a headset's use. These messaging strategies focus on the use of the headset and the value it provides to the user, supporting previous research on what drives consumers to use virtual reality products. Similarly, when examining executional strategies, Preemptive and Unique Selling Proposition strategies were the most effective in terms of consumer engagement. This study's findings support previous research focused on integrating virtual reality into the technology acceptance model.

The frequent use of Social messaging strategies as well as User Image and Use Occasion executional strategies show that virtual reality companies are attempting to showcase their devices' social benefits. This supports ideas presented by Lee, Kim, & Choi, suggesting that the perceived social value of a virtual reality device impacts its perceived usefulness and positively changes a consumer's intention to use (2019).

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

Implications

This study offers key implications for researchers and virtual reality advertising practitioners alike. Researchers can benefit, as the results show that Taylor's message strategy segments can be utilized to capture the totality of messages within technology product communications on Instagram. This extends the message strategy wheel beyond the realm of traditional advertising media. This study also holds similar implications for Frazer's (1983) creative summary and Laskey, Day, and Crask's (1989) creative topologies as it relates to executional strategies.

Content analysis determined that Routine-focused messages were not utilized in the sample as examined. This presents a possible opportunity for virtual reality advertisers and communicators as the field continues to grow. Larger virtual reality install bases could attract software companies with the resources to create experience that evolve over time, or experiences with content that's released regularly. In this instance, messaging from the routine message strategy segment could highlight the benefits of regular virtual reality usage. Understanding when to start utilizing routine-focused messaging is a strategic opportunity for the industry.

Research Limitations

There are several key limitations to discuss as a part of this study that are mostly related to its exploratory nature. One such limitation is that a convenience sample was used in lieu of a truly random sample. This was due to the fact that there is not a sufficient online database of social media advertising. This narrows the study's insights to a segment of virtual reality communications.

Secondly, this study was primarily concerned with a single product category, limiting the generalizability of the study's results. Insights from this study could be used to examine other emerging markets and new technological product categories, but its primary applications are toward the virtual reality market.

Furthermore, the study examined communications exclusively from Instagram. This limits the study's findings because of the unknown organizational structure behind the content's creation. The messaging strategies and executional strategies utilized by each company's Instagram presence might not be reflective of the strategies utilized by each company as a whole. To increase the generalizability of the results, it could be beneficial to examine virtual reality advertising on television or on other social media channels. Multivariate analysis of VR advertising channels could provide more insight into the space.

Another limitation of the study comes from the fact that posts from only two companies were examined. The virtual reality market is growing quickly but is still in a relatively nascent stage with viable consumer products existing on the market for less than a decade at the time of this report's writing. Other successful

companies exist in the virtual reality space, but few companies exist in the same sub-group of headsets as Oculus and HTC.

Future Research Recommendations

This study opens the possibility of other research avenues surrounding virtual reality communications. This study was primarily of an exploratory nature. This study provides additional context and insight into how consumers respond to certain kinds of messaging, which extends research into the VR-TAM. Another option for future research would be focus group or survey research aiming to understand what drives consumer adoption of virtual reality products. Understanding what drives consumer adoption in the space could assist practitioners when developing future advertising campaigns.

Routine message strategies were not found in the sample as examined. The lack of Routine-focused messaging strategy segments could be due to a mismatch between the state of the virtual reality market and the Routine messaging strategies. Future research could investigate the effectiveness of Routine-focused messaging appeals once the market has matured to a sufficient degree.

Despite the limitations as discussed, this study provides insight into how virtual reality companies communicate with their target market and position their products. The study also provides jumping off points for future research and helps build a base of study for virtual reality advertising communications.

LIST OF REFERENCES

Ahn, H.-Y. (Anthony), Wu, L., & Taylor, R. E. (2013). Communication Strategies in Cosmetic Surgery Websites: An Application of Taylor's Six-Segment Message Strategy Wheel. *Health Marketing Quarterly*, 30(2), 97–113.

<https://doi.org/10.1080/07359683.2013.787879>

AR and VR Headsets Will See Shipments Decline in the Near Term Due to COVID-19, But Long-term Outlook Is Positive, According to IDC. (2020). IDC.

<https://www.idc.com/getdoc.jsp?containerId=prUS46143720>

Boland., Mike. "XR Talks: Projecting VR's Near and Far Future." AR Insider, 8 Mar. 2021, arinsider.co/2021/02/12/xr-talks-projecting-vrs-near-and-far-future/.

Boyd, D. E., & Koles, B. (2019). An Introduction to the Special Issue "Virtual Reality in Marketing": Definition, Theory and Practice. *Journal of Business Research*, 100, 441–444. <https://doi.org/10.1016/j.jbusres.2019.04.023>

Daniel, E. S., Crawford Jackson, E. C., & Westerman, D. K. (2018). The Influence of Social Media Influencers: Understanding Online Vaping Communities and Parasocial Interaction through the Lens of Taylor's Six-Segment Strategy Wheel. *Journal of Interactive Advertising*, 18(2), 96–109.

<https://doi.org/10.1080/15252019.2018.1488637>

Frazer, C. F. (1983). Creative Strategy: A Management Perspective. *Journal of Advertising*, 12(4), 36–41. <https://doi.org/10.1080/00913367.1983.10672861>

Golan, G. J., & Zaidner, L. (2008). Creative Strategies in Viral Advertising: An Application of Taylor's Six-Segment Message Strategy Wheel. *Journal of*

Computer-Mediated Communication, 13(4), 959–972.

<https://doi.org/10.1111/j.1083-6101.2008.00426.x>

HTC. (2016, June 6). *VIVE NOW SHIPPING IMMEDIATELY FROM HTC, RETAIL PARTNERS EXPAND DEMO LOCATIONS* [Press Release], Retrieved from <https://www.htc.com/us/newsroom/2016-06-07/>

Hu, Y., Manikonda, L., & Kambhampati, S. (2014). *What we instagram: A first analysis of instagram photo content and user types*. In *Proceedings of the 8th International Conference on Weblogs and Social Media, ICWSM 2014* (pp. 595-598). (*Proceedings of the 8th International Conference on Weblogs and Social Media, ICWSM 2014*). The AAAI Press. (n.d.).

Huygelier, H., Schraepen, B., van Ee, R., Vanden Abeele, V., & Gillebert, C. R. (2019). Acceptance of immersive head-mounted virtual reality in older adults. *Scientific Reports*, 9(1), 4519. <https://doi.org/10.1038/s41598-019-41200-6>

Ju, I., & Park, J. S. (2015). Communication Strategies in Direct-to-Consumer Prescription Drug Advertising (DTCA): Application of the Six Segment Message Strategy Wheel. *Journal of Health Communication*, 20(5), 546–554. <https://doi.org/10.1080/10810730.2014.999890>

Kim, D., & Ko, Y. J. (2019). The impact of virtual reality (VR) technology on sport spectators' flow experience and satisfaction. *Computers in Human Behavior*, 93, 346–356.

- Laskey, H. A., Day, E., & Crask, M. R. (1989). Typology of Main Message Strategies for Television Commercials. *Journal of Advertising*, 18(1), 36–41.
<https://doi.org/10.1080/00913367.1989.10673141>
- Lee, J., Kim, J., & Choi, J. (2019). The adoption of virtual reality devices: The technology acceptance model integrating enjoyment, social interaction, and strength of the social ties. *Telematics and Informatics*, 39, 37–48.
<https://doi.org/10.1016/j.tele.2018.12.006>
- Lee, T. (David), Taylor, R. E., & Chung, W. (2011). Changes in Advertising Strategies During an Economic Crisis: An Application of Taylor's Six-Segment Message Strategy Wheel. *Journal of Applied Communication Research : JACR*, 39(1), 75–91. <https://doi.org/10.1080/00909882.2010.536846>
- Lin, J.-H. T. (2017). Fear in virtual reality (VR): Fear elements, coping reactions, immediate and next-day fright responses toward a survival horror zombie virtual reality game. *Computers in Human Behavior*, 72, 350–361.
- Manis, Kerry T, and Danny Choi. "The Virtual Reality Hardware Acceptance Model (VR-HAM): Extending and Individuating the Technology Acceptance Model (TAM) for Virtual Reality Hardware." *Journal of business research* 100 (2019): 503–513. Web.
- McGovern, E., Moreira, G., & Luna-Nevarez, C. (2020). An application of virtual reality in education: Can this technology enhance the quality of students' learning experience? *Journal of Education for Business*, 95(7), 490–496.
<https://doi.org/10.1080/08832323.2019.1703096>

- Oculus. (2015, May 6). *First Look at the Rift, Shipping Q1 2016* [Press Release]. Retrieved from <https://www.oculus.com/blog/first-look-at-the-rift-shipping-q1-2016/>
- Oculus. (2020, September 16). *Introducing Oculus Quest 2, The Next Generation of All-In-One VR*. [Press Release]. Retrieved from <https://www.oculus.com/blog/introducing-oculus-quest-2-the-next-generation-of-all-in-one-vr-gaming/>
- Petrock, V. (2020, April 7). US Virtual and Augmented Reality Users 2020. Retrieved October 19, 2020, from <https://www.emarketer.com/content/us-virtual-and-augmented-reality-users-2020>
- Rosa, S., & Breidt, M. (2018). Virtual reality: A new track in psychological research. *The British Journal of Psychology*, 109(3), 427–430. <https://doi.org/10.1111/bjop.12302>
- Sagnier, C., Loup-Escande, E., Lourdeaux, D., Thouvenin, I., & Valléry, G. (2020). User Acceptance of Virtual Reality: An Extended Technology Acceptance Model. *International Journal of Human–Computer Interaction*, 36(11), 993–1007. <https://doi.org/10.1080/10447318.2019.1708612>
- Silva, J. N. A., Southworth, M., Raptis, C., & Silva, J. (2018). Emerging Applications of Virtual Reality in Cardiovascular Medicine. *JACC. Basic to Translational Science*, 3(3), 420–430. <https://doi.org/10.1016/j.jacbts.2017.11.009>
- Sutherland, Ivan E. (1970, June). Computer Displays. *Scientific American*, 222(6), 56–81.

- Staff, S. (2020, October 28). SuperData XR Quarterly Update. Retrieved November 3, 2020, from <https://www.superdataresearch.com/blog/superdata-xr-update>
- TAYLOR, R. E. (1999, November). A Six-Segment Message Strategy Wheel. *Journal of Advertising Research*, 39(6), 7. Gale Academic OneFile.
- Vaughn, Richard. "How Advertising Works: A Planning Model." *Journal of advertising research* 20.5 (1980): 27-. Print.
- Xu, C., Demir-Kaymaz, Y., Hartmann, C., Menozzi, M., & Siegrist, M. (2021). The comparability of consumers' behavior in virtual reality and real life: A validation study of virtual reality based on a ranking task. *Food Quality and Preference*, 87, 104071-.

APPENDIX

APPENDIX 1: Tables

Table 1

| Message Strategy | Frequency | Percentage |
|------------------|-----------|------------|
| Social | 262 | 27.8% |
| Sensory | 215 | 22.8% |
| Ration | 194 | 20.6% |
| Acute Need | 170 | 18% |
| Ego | 127 | 13.5% |
| Routine | 0 | 0% |

Table 2

| Executorial Appeal | Frequency | Percentage |
|----------------------------|-----------|------------|
| Use Occasion | 401 | 42.6% |
| Brand Image | 276 | 28.3% |
| User Image | 203 | 21.5% |
| General Informational | 141 | 15% |
| General Transformative | 69 | 7.3% |
| Resonance | 44 | 4.7% |
| Hyperbole | 39 | 4.1% |
| Unique Selling Proposition | 17 | 1.8% |
| Preemptive | 16 | 1.7% |
| Comparative | 0 | 0% |

Table 3

| Message Strategy View | Average Likes | Average Comments |
|-----------------------|---------------|------------------|
| Ritual | 1061.83 | 35.14 |
| Transmission | 702.33 | 25.77 |

Table 4

| Message Strategy | Average Likes | Average Comments |
|------------------|---------------|------------------|
| Ego | 1339.21 | 46.91 |
| Sensory | 1286.78 | 42.30 |
| Social | 742.71 | 23.68 |
| Ration | 737.61 | 30.87 |
| Acute Need | 661.5 | 20.07 |
| Routine | n/a | n/a |

Table 5

| Execuational Strategy | Average Likes | Average Comments |
|------------------------------|----------------------|-------------------------|
| Preemptive | 1877.87 | 142.13 |
| Unique Selling Proposition | 1304.59 | 62.88 |
| Brand Image | 1188.43 | 38.84 |
| Resonance | 1034.61 | 38.75 |
| Use Occasion | 913.95 | 34.55 |
| User Image | 826.41 | 28.98 |
| Hyperbole | 820.92 | 27.92 |
| General Transformational | 600.12 | 14.65 |
| General Informational | 498.65 | 16.01 |
| Comparative | n/a | n/a |

APPENDIX 2: Coding Guide

1. High-Level Message Strategy

| | |
|---|---|
| <p>1. Ritual View</p> <ul style="list-style-type: none"> - Creates connection between experience of using the product with a psychological concept. - Emotional, lifestyle focused messaging | <p>Example:</p> <ul style="list-style-type: none"> - “Take your first step into VR” - “Join your friends in virtual reality” |
| <p>2. Transmission View</p> <ul style="list-style-type: none"> - Communicates factual, rational information about a product, or company in a logical way - Highlights competitive advantages or disadvantages found in competitors | <p>Example:</p> <ul style="list-style-type: none"> - “Our headsets have the best screens” - Value focused messaging |

2. Specific Message Strategy

| | |
|--|--|
| <p>1. Ego</p> <ul style="list-style-type: none"> - Appeal focused on self-actualization of a consumer’s image - Connection with consumer that is emotionally charged but not elaborated | <p>Example:</p> <ul style="list-style-type: none"> - “Take your first steps into VR” - Emotional appeals |
| <p>2. Social</p> <ul style="list-style-type: none"> - Emphasizing or creating a group dynamic - Showcasing the product in a social situation or as it relates to others | <p>Example:</p> <ul style="list-style-type: none"> - “Send us pictures of your friends in VR” - User-submitted images - Celebrity endorsements |
| <p>3. Sensory</p> <ul style="list-style-type: none"> - Appeals based on five senses - Tactile feelings - Moments of pleasure | <p>Example:</p> <ul style="list-style-type: none"> - “VR never looked/felt/sounded so good.” |
| <p>4. Routine</p> <ul style="list-style-type: none"> - Habit-focused appeal, does not need much thought - Appeal/reinforce brand familiarity - Convenience-focused appeal | <p>Example:</p> <ul style="list-style-type: none"> - “Welcome to Oculus Quest.” |
| <p>5. Acute need</p> <ul style="list-style-type: none"> - Requiring immediate action - Appeal focusing on urgent situation | <p>Example:</p> <ul style="list-style-type: none"> - “Shop the last day of the sale.” - “Pre-order today” |
| <p>6. Ration</p> <ul style="list-style-type: none"> - Providing a large amount of information | <p>Example:</p> <ul style="list-style-type: none"> - “The Oculus Quest 2 has a faster processor than the competition.” |

3. Executional Strategy

Informational Executional Strategies

| | |
|---|--|
| <p>1. Comparative</p> <ul style="list-style-type: none"> - Specific mention of competition between companies | <p>Example:</p> <ul style="list-style-type: none"> - “Our headset has twice the battery life as (Competitor X).” |
| <p>2. Unique Selling Proposition</p> <ul style="list-style-type: none"> - Claim of uniqueness | <p>Example:</p> <ul style="list-style-type: none"> - “PlayStation VR is the only console-based VR system.” |
| <p>3. Preemptive</p> <ul style="list-style-type: none"> - Claim of superiority based on a testable metric | <p>Example:</p> <ul style="list-style-type: none"> - “Our product has the highest refresh rate screen on the market” |
| <p>4. Hyperbole</p> <ul style="list-style-type: none"> - Emphasizes superiority in a way that cannot be tested | <p>Example:</p> <ul style="list-style-type: none"> - “The best feeling VR on the market.” |
| <p>5. General Informational</p> <ul style="list-style-type: none"> - Any informational-focused appeal without a focus on superiority. | <p>Example:</p> <ul style="list-style-type: none"> - “Our headset has great graphics” |

Transformational Executional Strategies

| | |
|---|--|
| <p>1. User Image</p> <ul style="list-style-type: none"> - Focused on the user – image or creative execution of the product’s target user. | <p>Example:</p> <ul style="list-style-type: none"> - Picture or video of desired user |
| <p>2. Brand Image</p> <ul style="list-style-type: none"> - Emphasizes brand’s desired or actual image | <p>Example:</p> <ul style="list-style-type: none"> - Company logos |
| <p>3. Use Occasion</p> <ul style="list-style-type: none"> - Showing how a product will be utilized | <p>Example:</p> <ul style="list-style-type: none"> - Photo or video of product in use |
| <p>4. Resonance</p> <ul style="list-style-type: none"> - Attempts to provide meaning to product through the use of a user’s past experiences | <p>Example:</p> <ul style="list-style-type: none"> - VR is like starting up your first computer, all over again. |
| <p>5. General Transformational</p> <ul style="list-style-type: none"> - Transformational appeal not included in above categories, does not include strong selling focus | <p>Example:</p> <ul style="list-style-type: none"> - “Are you ready to experience VR?” |

VITA

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