VIA ELECTRONIC MAIL

Jennifer Piorko Mitchell
Office of the Corporate Secretary
FINRA 1700 K Street, NW
Washington, DC 20006

RE: The Metaverse and the Implications for the Securities Industry

Dear Ms. Mitchell:

Nationwide Financial Services, Inc. ("Nationwide") appreciates the opportunity to provide our comments on FINRA's report "The Metaverse and the Implication for the Securities Industry." This letter offers an analysis of the some of the opportunities and challenges presented by immersive experiences within the metaverse. We hope that our insights contribute to the ongoing discussion and help shape a balanced approach to integrating the metaverse into the securities industry.

NATIONWIDE

Nationwide's mission is "To Protect People, Businesses and Futures with Extraordinary Care." Through its main financial services business segments and subsidiaries, Nationwide offers a variety of financial services products through intermediaries and directly to the public. Three Nationwide affiliated broker-dealers are FINRA member firms – Nationwide Securities, LLC, Nationwide Investment Services Corporation, and Nationwide Fund Distributors.

Our assessment categorizes the types of content that can be utilized in these experiences and explores their potential applications in investor and financial professional communications. We also address the challenges that may arise, including biases in information presentation and the impact of immersive experiences on consumer behavior.

Furthermore, we examine the regulatory context and discuss options for regulators to develop appropriate rules and guidelines. We also underscore the significance of considering unintended consequences and recommend ongoing collaboration between firms and regulators to establish best practices and guidelines.

We hope our insights contribute to the ongoing discussion and help shape a balanced approach to integrating immersive experiences in the securities industry.

DEFINITIONS AND SCOPE

McKinsey[1]provides a detailed analysis of the metaverse and identifies layers organized into four categories: Content and experiences, platforms, infrastructure and hardware, and enablers. Our focus is primarily on content, with platforms and infrastructure taken into consideration when they significantly impact content. We use the term "immersive

[1] What is the metaverse and where will it lead next? | McKinsey. August 17, 2022. https://www.mckinsey.com/featured-insights/mckinsey-explainers/what-is-the-metaverse#/.

experiences" to capture the range of media that can be used to experience content in the metaverse (virtual reality, augmented reality, mixed reality), as it focuses less on the medium and more on the content of the message.

Additionally, the interaction of artificial intelligence (AI) and large-language models (LLMs) and the emerging agentic AI must be included in this discussion because the combination of these AI technologies with immersive experience may create the most challenging space for both firms, marketing organizations, and regulators.

It may be helpful to clarify the types of content that may be provided in an immersive experience.

Fixed Content

> This is the most familiar content type, and includes sales, educational or promotional materials that are created and reviewed prior to distribution. There are well established and documented requirements for the review and approval of fixed content by firms and regulators. Currently, many forms of immersive experience still rely heavily on fixed content. As technology has evolved, firms and marketers have learned how to leverage print, digital, audio and video. However, in nearly all cases, this fixed content is written and reviewed prior to use by the firm and regulators, as necessary.

Variable, Deterministic Content

> This content type includes, for example, interactive calculators designed to illustrate mathematical concepts, such as the impact of inflation on spending power, the time value of money, etc. This type of content also has well-defined parameters on its creation and use.

Variable, Nondeterministic

> This content type includes chat rooms where humans interact. It might also include chats with an AI language models and on-the-fly content created in response to actions or questions from a consumer.

OPPORTUNITIES

Consumers have been interacting online for over 30 years. They have had access to basic metaverse experiences for at least 20 years. SecondLife, one of the first consumer-oriented metaverse experiences launched publicly in 2003.[2] The evolving metaverse offers a variety pf uses for the financial services industry, including:

Investor Education

Immersive experiences for investor education are potentially more efficacious than other traditional media.[3] According to research, "… IVR scenarios that actively engage learners and

[2] History of Second Life - Second Life Wiki. https://wiki.secondlife.com/wiki/History_of_Second_Life.
[3] Learning effectiveness of immersive virtual reality in education and training: A systematic review of findings – ScienceDirect. https://www.sciencedirect.com/science/article/pii/S2949678024000035.

thus trigger more complex cognitive processes tend to be more conducive to learning.[4] Consumers of immersive experiences can discover and experience content in a variety of formats, engage and interact with content and even other people.

A key differentiator of immersive experiences is that they are interactive and experienced in a way that can mimic real-life environments. Consider the possibility of a static, two-dimensional chart being shown in a three-dimensional immersive experience. Creative designers may be able to help the investor understand the concepts by allowing them to interact with them, zoom in, zoom out and even overlay other factors. Of course, this can be done in a two-dimensional space today. But the ability to see multiple input dimensions in in a quasi-three-dimensional space could add to the reality of the concept to investors, enabling them to understand financial concepts more fully.

Today, Nationwide uses a virtual experience with participants in deferred compensation retirement plans through a conventional internet browser. The immersive experience or virtual environment allows participants to engage with a variety of content designed to help them learn about planning for retirement, attend live or on-demand webinars and even meet with educational representatives for their plan. Satisfaction amongst those survey was very high with over three-quarters rating the experience positively.

Training and Collaborative Learning

Immersive experiences are a useful tool for education and learning. Because not all learners start in the same place in their knowledge, a more interactive and flexible approach can help them learn in a manner more suited to their needs.

Nationwide worked with one of its distribution partners to provide interactive education to their financial professionals. The training allowed them to interact with a variety of subjects and to participate in a live, virtual seminars.

There are many other communication opportunities that immersive experiences can potentially enrich. To outline just a few:

- Employee training
- Collaboration
- Data visualization

CHALLENGES

Unlike traditional communications media such as print, video or audio, which are typically designed to be consumed in a linear fashion, newer technologies, including web sites and the metaverse, invite their consumers to consume information non-linearly, moving through the content as they see fit. This is familiar to us on web pages, where “browsing” between various pages of interest has become second nature to most consumers.

In a virtual space, such as the metaverse, nonlinear consumption of information is also possible. In fact, unlike traditional communication media (including web sites), it may not be obvious to consumers what or whether there is a logical order to the virtual experience.

[4] Ibid.

Compliant communication in immersive experiences may require thoughtful design to ensure that critical information is not missed because the consumer of the experience didn't take a pathway that the creator expected.

Some research suggests that "when consumers are in an environment with a higher degree of immersiveness, this has the potential to affect their behaviour [sic] to a greater extent relative to less immersive environments."[5] Perhaps stricter scrutiny will need to be applied to immersive experiences to ensure that they are not biased in the presentation of information.

Immersive experiences may not suit all learning styles. Less tech-savvy individuals of all ages may be challenged with navigating a virtual environment. Some learners may prefer text-based and linear processing that conventional forms to content use. The industry would do well to deliver content to their partners and customers in modalities that are flexible and suitable to their preferred learning styles.

In some cases, individuals may not have the technology available to them to fully experience VR. Additionally, some users of virtual environments can experience motion sickness.[6] Lastly, some users may have disabilities covered by the Americans with Disabilities Act and require an accommodation.

REGULATORY CONTEXT

Technology can function as an important facilitator to help financial professionals and the public understand and learn about financial topics, products and services. We believe that immersive experiences with flexible navigation allow individuals to learn in the way that best suits them and their experience. However, it is important for the industry and regulators to understand its implications and associated risks.

Financial professional, client and call center interactions are likely to increasingly take place in an immersive experience, providing the interacting parties a fuller visual and immersive relationship as they interact. Fortunately, as with most content, we have well-defined and documented requirements about these interactions. For example, the supervision and retention of communications are well-defined in the industry.

There may be opportunities to consider whether an immersive experience carries additional risks necessitating new ways of retaining information and documenting the interaction. This is where automation may be helpful. Today, there are already software companies whose platforms can scan the content of video for problematic content (copyright infringement, policy violations, such as showing alcohol or firearms). While these systems are not foolproof, they are improving in quality. Many companies make use of such software today.

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[5] Changing consumer behaviour in virtual reality: A systematic literature review – ScienceDirect. https://www.sciencedirect.com/science/article/pii/S2451958821000415#sec5.

[6] Michael E. McCauley, Thomas J. Sharkey; Cybersickness: Perception of Self-Motion in Virtual Environments. Presence: Teleoperators and Virtual Environments 1992; 1 (3): 311–318. doi: https://doi.org/10.1162/pres.1992.1.3.311. Interestingly, Apple has added features to their mobile operating system to mitigate some impacts of motion sickness while using their devices: Use iPhone more comfortably while riding in a vehicle - Apple Support (IN). https://support.apple.com/en-in/guide/iphone/iph55564cb22/ios.

The impact of immersive experience content on the consumer should also be considered. Historically, words and language could be evaluated against such limits as veracity, promissory quality, being fair and balanced, etc. With the introduction of an experiential element, the medium could be misused to overemphasize certain features or quality of a product, for example. Today, we may consider the excessive use of bold face type, large font sizes and placement to overemphasize the key features of a product or service. In the future, how will the appearance in the virtual world of information potentially influence the information consumers consume? At a minimum, creators of virtual spaces should ensure that information critical to the understanding of content be present in close proximity to the content, and sufficiently prominent for evaluation.

With the explosive growth in the capabilities and use of artificial intelligence (AI) and large language models (LLM), these technologies, may be used in creating content for immersive experiences. To be certain, generative content has the potential to vastly enrich the user experience. However, the problems of hallucination, confabulation as well as bias found in models cannot be ignored. Indeed, combination of AI and LLMs with immersive experience may create the most challenging space for firms, marketing organizations and regulators.

Chat-based AI may also be a feature of immersive experiences, and there is an opportunity to develop a more well-defined understanding of supervision. FINRA provided guidance in question B.4.1 of their FAQ updated on Advertising Regulation.[7] Firms should supervise chatbot communications in accordance with applicable FINRA rules. It seems a simple matter to look at the communication rules and decide whether a chat-bot communication with the public is a retail communication or correspondence. But details remain to be worked out by firms and regulators.

- Do firms have personnel in place to manage these processes?
- Who at the firm will act in supervisory capacity for correspondence? Chatbots are not registered representatives, so should WSPs contemplate assigning the role to a registered principal at the firm?
- A chatbot cannot, presumably, be subject to disciplinary action. Is there a threshold at which the firm must decide that the chatbot's use must be discontinued? One mistake? Any misstatement? Only misstatements/confabulations of a material nature? Etc.
- If the chatbot operates in an interactive space where it communicates to multiple people at the same time, such as a seminar, how should its communications be treated?

RECOMMENDATIONS

FINRA and the industry should collaborate to foster the adoption of best practices and guidelines in the creation of immersive experiences and content. We suggest the following measures:

- Continue with a technology-agnostic approach to regulation and continue encourage the industry to adhere to high standards for both institutional and retail communications. However, the structure of immersive experiences should also be considered to the extent that it could hinder investor understanding.

[7] Frequently Asked Questions About Advertising Regulation | FINRA.org.

- Maintain the existing distinctions between retail communications, institutional communications and correspondence. As necessary, modify or expand definitions to allow for clarity.
- Examine use cases to help determine how best to regulate AI and LLMs in immersive experiences. Provide principles- and risk-based guidance on the supervision of AI and LLM content that is created on the fly to present to both financial professionals and investors.
- Encourage firms and content creators to be clear on the audience and the type of interactions in immersive experiences.
- Consider developing a consistent process/rubric for review of immersive experiences, given that multiple communication types (retail communications, 1-on-1 communications) may coexist in the same immersive experience.
- Consider how content should be reviewed considering the variety of media and experiences that may be available in immersive experiences.
- Continue research and discussion of how immersive experiences are used to provide insights into ambiguities in guidelines.

CONCLUSION

The metaverse and various immersive experiences present an opportunity to enrich the experience of investors and consumers. But as with all new technologies, a measure of consideration should be taken with respect to unintended consequences from their adoption. There should be ongoing collaboration between firms and regulators to establish best practices and guidelines.

Sincerely,

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