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TRENDS FOR 2017

Epsilon Agency
December 2016

The rise of AI, connected systems, conversational & ambient experiences will lead to a new form of consumer marketing similar to galactic cannibalism. How we consume and interact via digital channels is about to be absorbed and redefined.

- Tom Edwards, Chief Digital Officer, Agency



Galactic Cannibalism

Our View of 2017



Technology is now essential to our daily lives. Accessibility and empowerment has transformed how we connect and communicate. This has led to new forms of user interaction that will usher in the business models of the future.

2017 will be comprised of new types of conversational experiences to connect with consumers. It will see the continued evolution of artificial intelligence and connected systems as well as the rapid rise of third-party ecosystems supporting virtual, augmented and mixed reality.

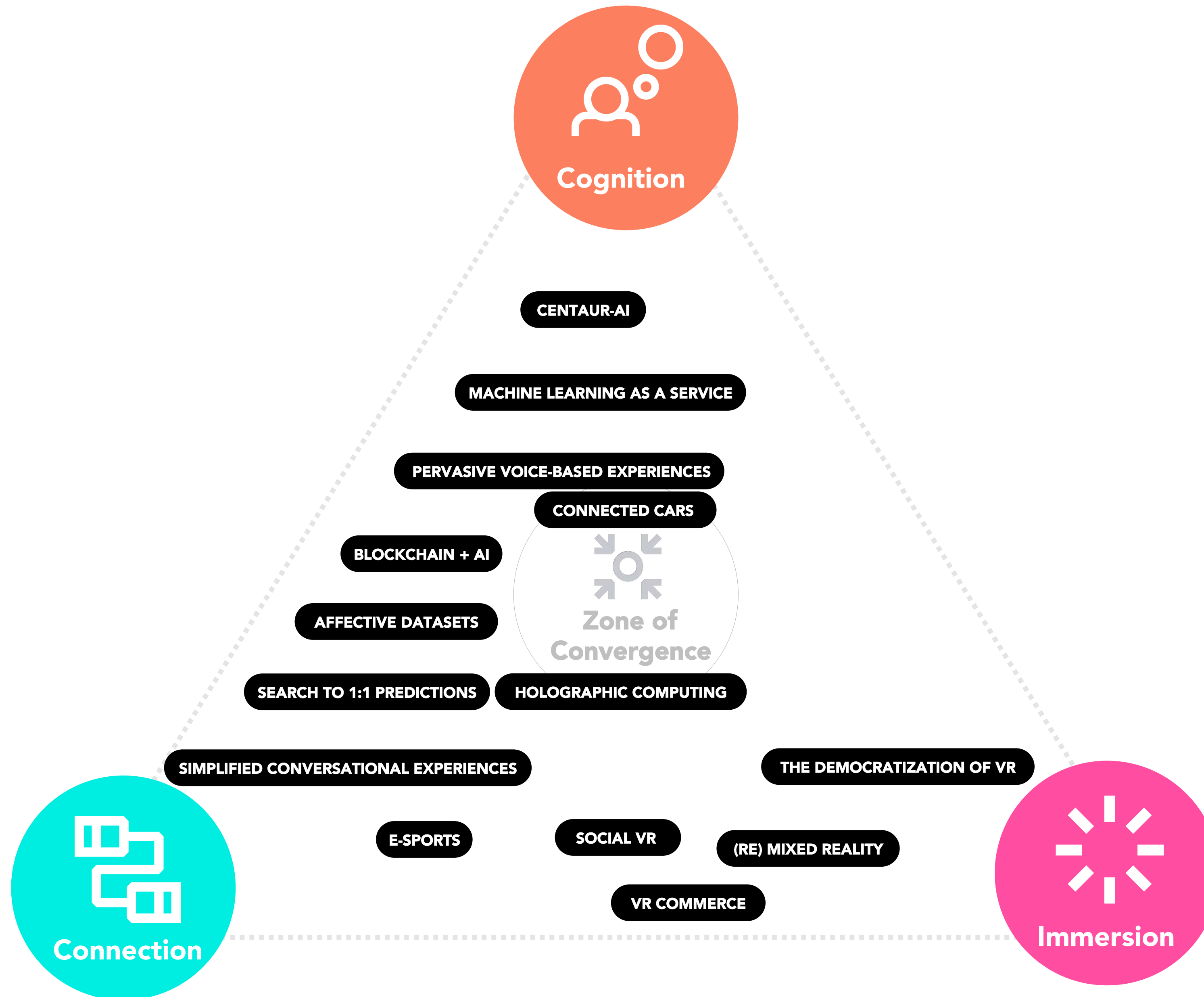
Our Top Trends for 2017 outlines the evolution of marketing in 2017 through the consumer centric filters of connection, cognition and immersion.

- **Connection** – Trends that reimagine how we connect, enable and empower consumers
- **Cognition** – Trends where machine based intelligence will disrupt and redefine data assets and how we work
- **Immersion** – Trends that align technology and presence to evoke emotion, entertain and power commerce

How we consume and interact via digital channels is about to be absorbed and redefined. We believe that 2017 will begin the convergence of connection, cognition and immersion toward an ambient computing future built on new data types that will simplify complex tasks and predict need states vs. reacting.

Tom Edwards

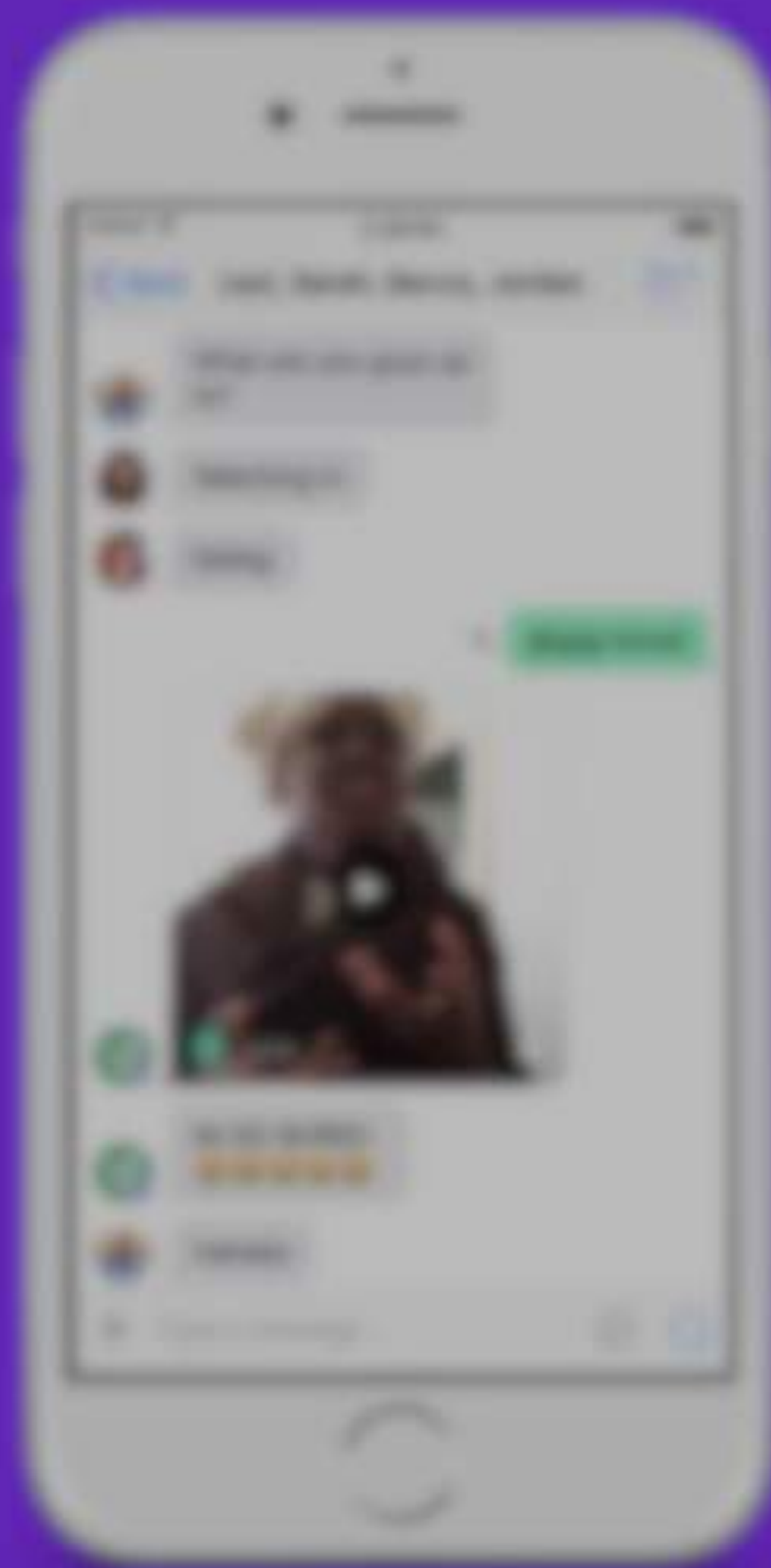
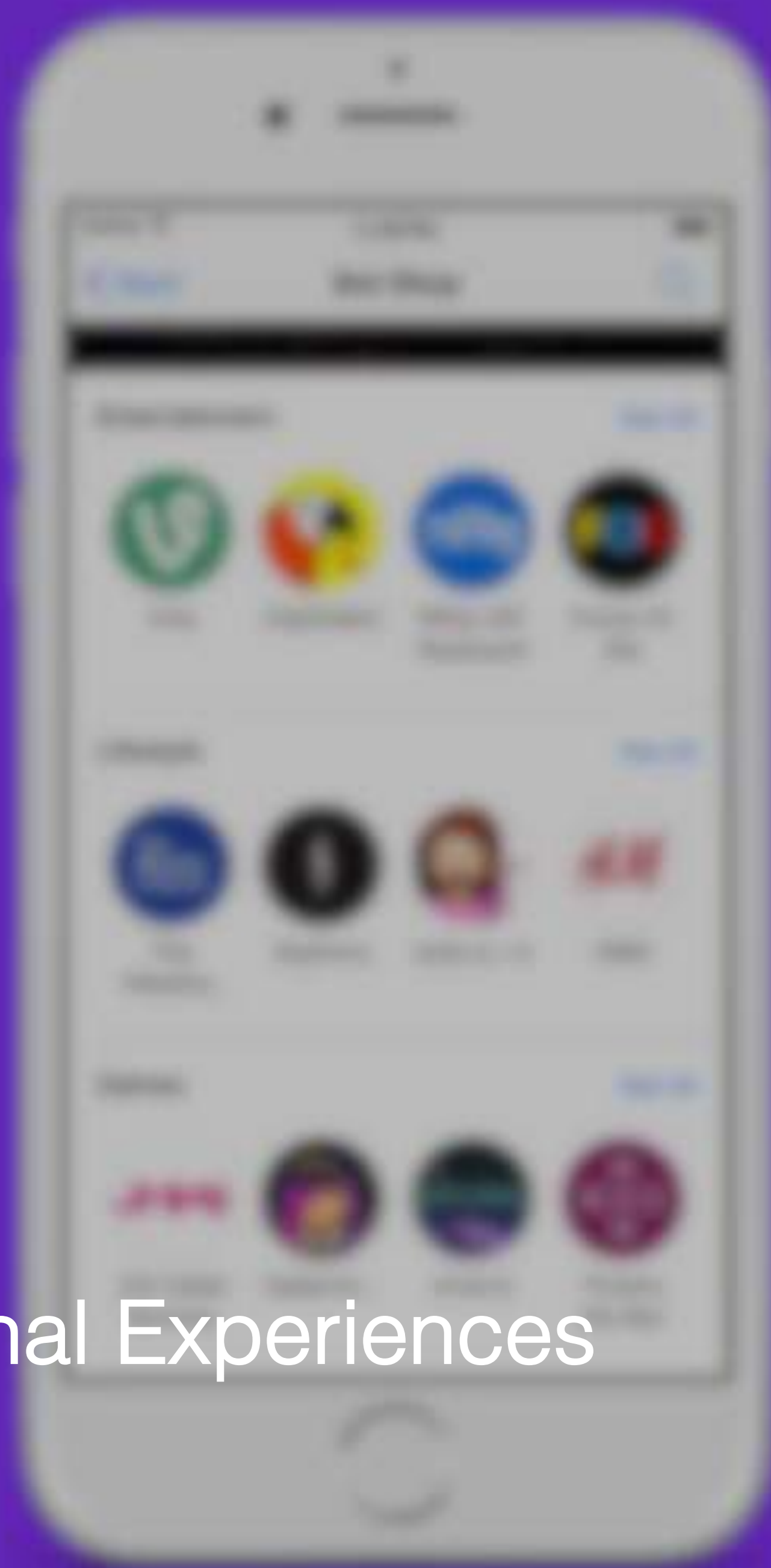
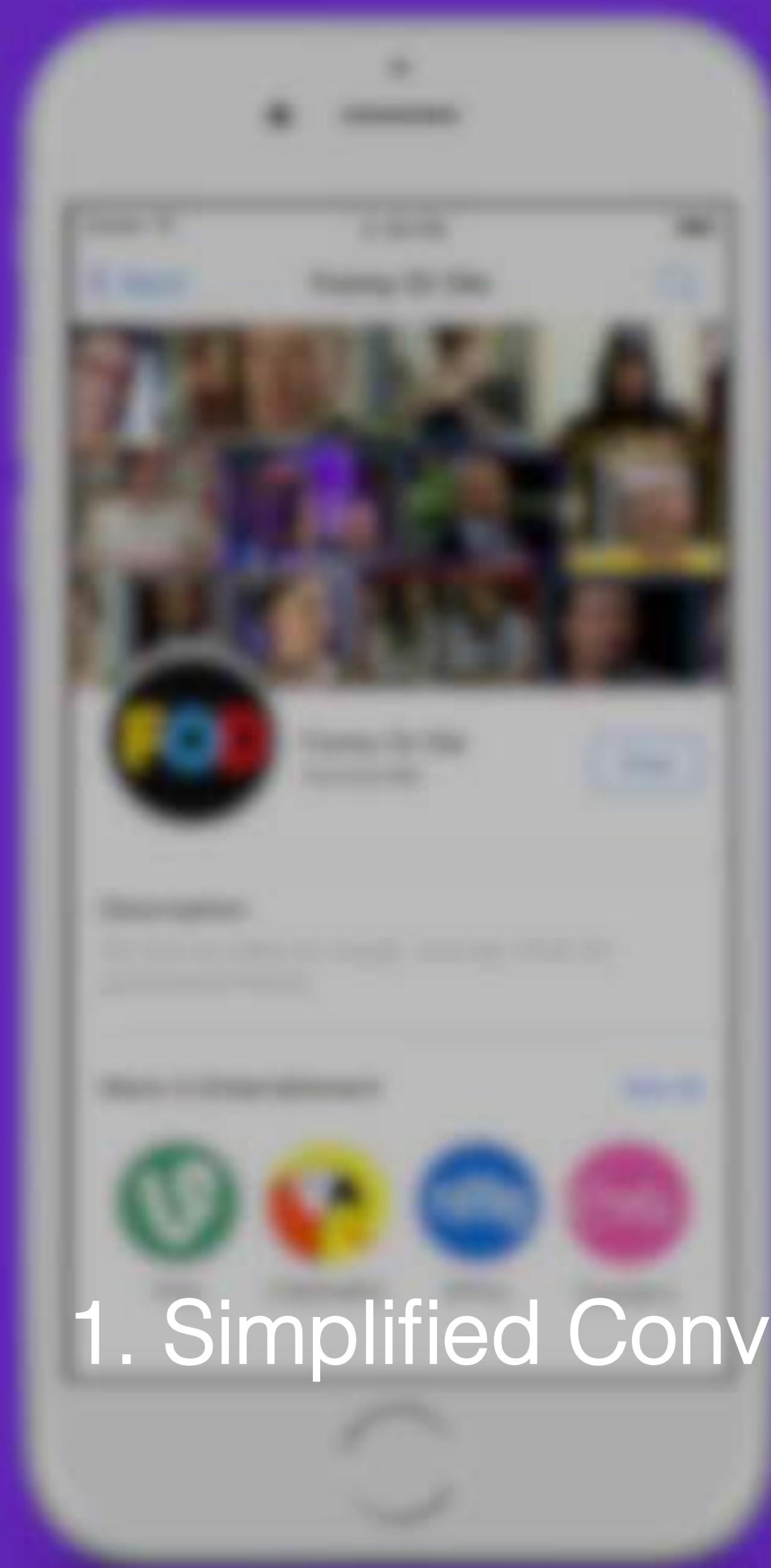
Chief Digital Officer, Agency



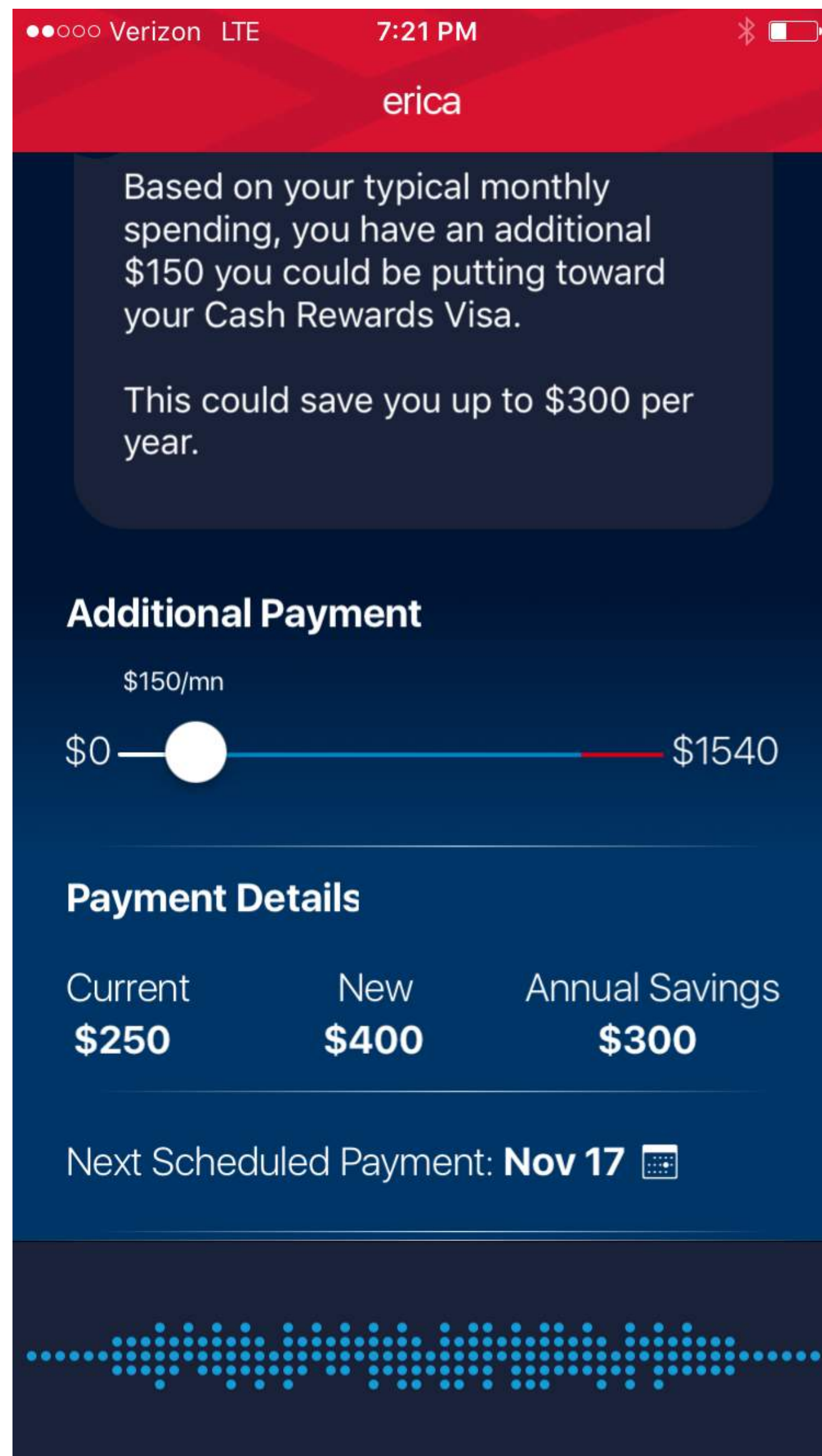


CONNECTION





1. Simplified Conversational Experiences



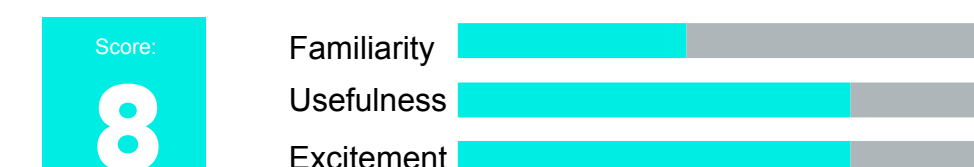
Bank of America's Erica bot uses predictive analytics + artificial intelligence to identify new ways to save and invest.

Simplified Conversational Experiences

The attraction of conversational experiences and bots is their ability to offer convenience and provide solutions within the context of an ongoing conversation.

In 2017 we'll see a greater push toward bots that are able to simplify consumers' experiences and predict needs. The focus will be less about building personal connection between brands and customers and more about being able to anticipate, predict and enhance consumer experiences.

Implications: Bot interactions are ongoing conversations, which means brands have the opportunity to use that data thread to inform the conversation's direction and provide product recommendations and experiences. The key for brand marketers is to capture the right data and create messaging and interactions similar to how people experience one-to-one conversations.



The background of the slide is a blurred photograph. On the left, a black, cylindrical smart speaker (Amazon Echo) is in sharp focus. The rest of the image is out of focus, showing a person with long dark hair wearing a red shirt, standing in a room. To the right, there is a large potted plant with reddish-brown leaves. The overall lighting is soft and indoor.

2. Pervasive Voice-Based Experiences

Apple AirPods



The Apple Airpods extend Siri's presence through the entire Apple ecosystem. Consumers can summon Siri without their phones to control their Apple devices.



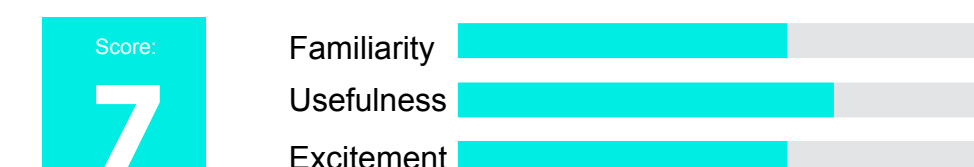
Pervasive Voice-Based Interfaces

The popularity of voice-based assistants like Amazon's Alexa Voice Service and Google Home demonstrates consumers are interested in going beyond screen-based UI to enhance their daily lives.

Voice-based interfaces are a natural extension of our daily lives and as we shift toward a more conversational interaction model with consumers, voice could dominate over screens as the main interaction model.

Implication: The core of the experience is a combination of automated speech recognition, natural language processing and cloud-based AI.

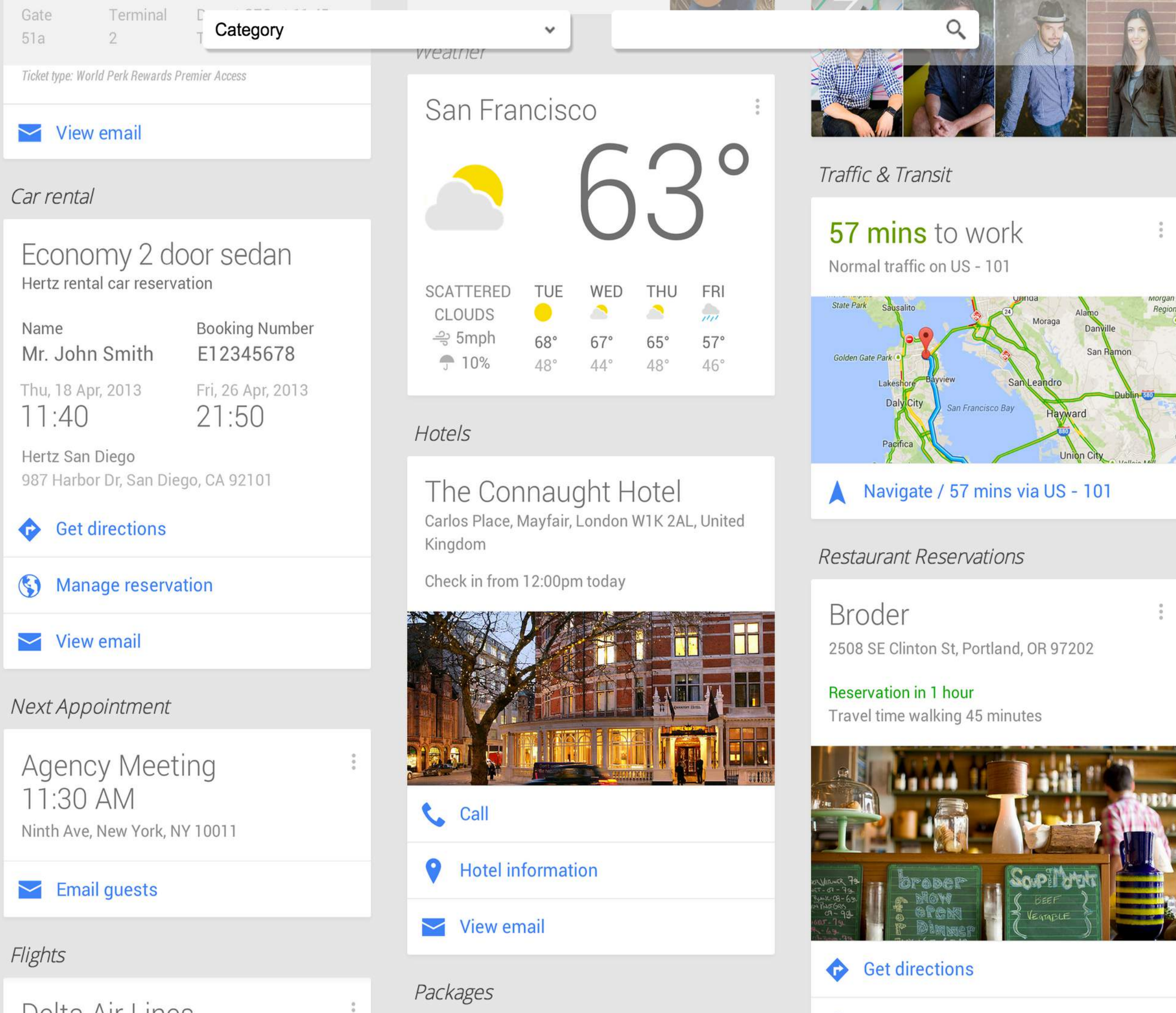
The key elements behind designing a successful voice-based experience is to define the types of actions consumers can perform, as well as increase discovery by understanding how consumers talk about your brand vs. how they input your brand on a keyboard. This means understanding and optimizing for long-tail phrases and actionable-intent-based language like how, when and where.





Hi, how can I help?

3. Search and Retrieval to 1:1 Prediction



Search and Retrieval to 1:1 Prediction

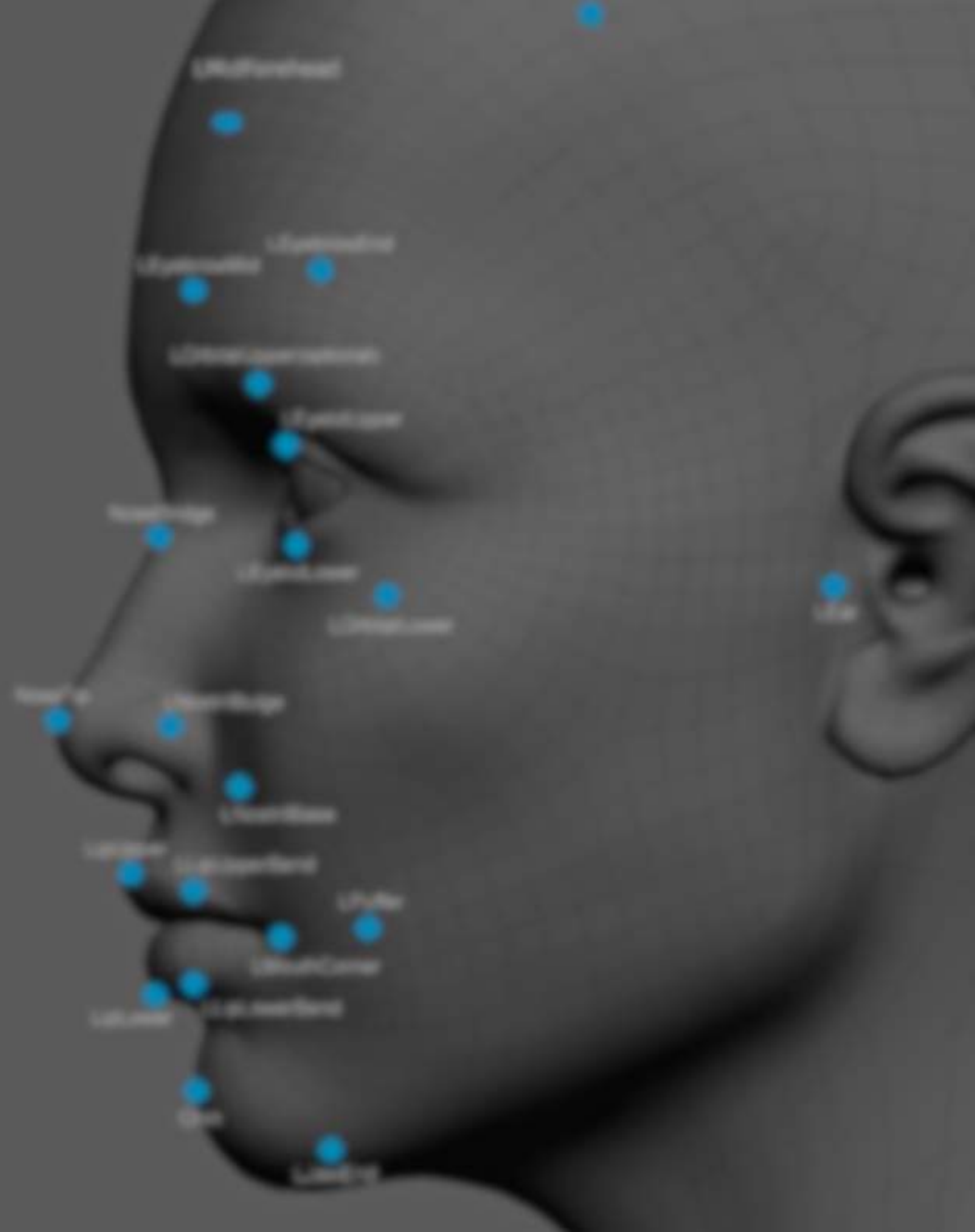
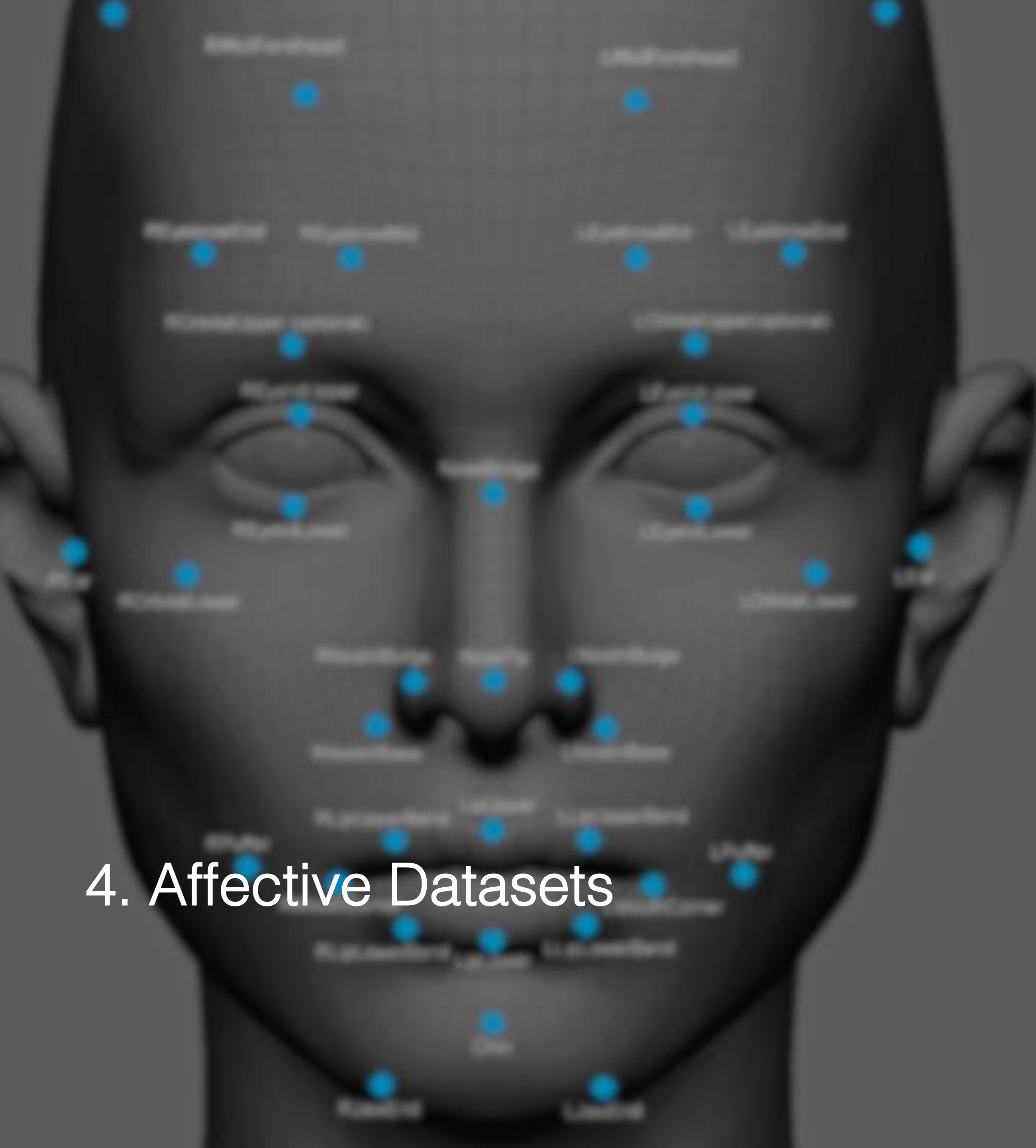
Mobile computing and machine learning have shifted consumer behavior from searching for answer options to having exact answers that are based on context and predicted need states. This behavioral shift will continue to transform and simplify the search experience from inputting queries into search bars to having answers delivered to them in the form of notifications, cards or conversational experiences.

Implications:

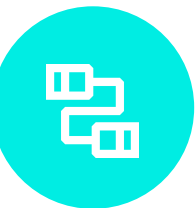
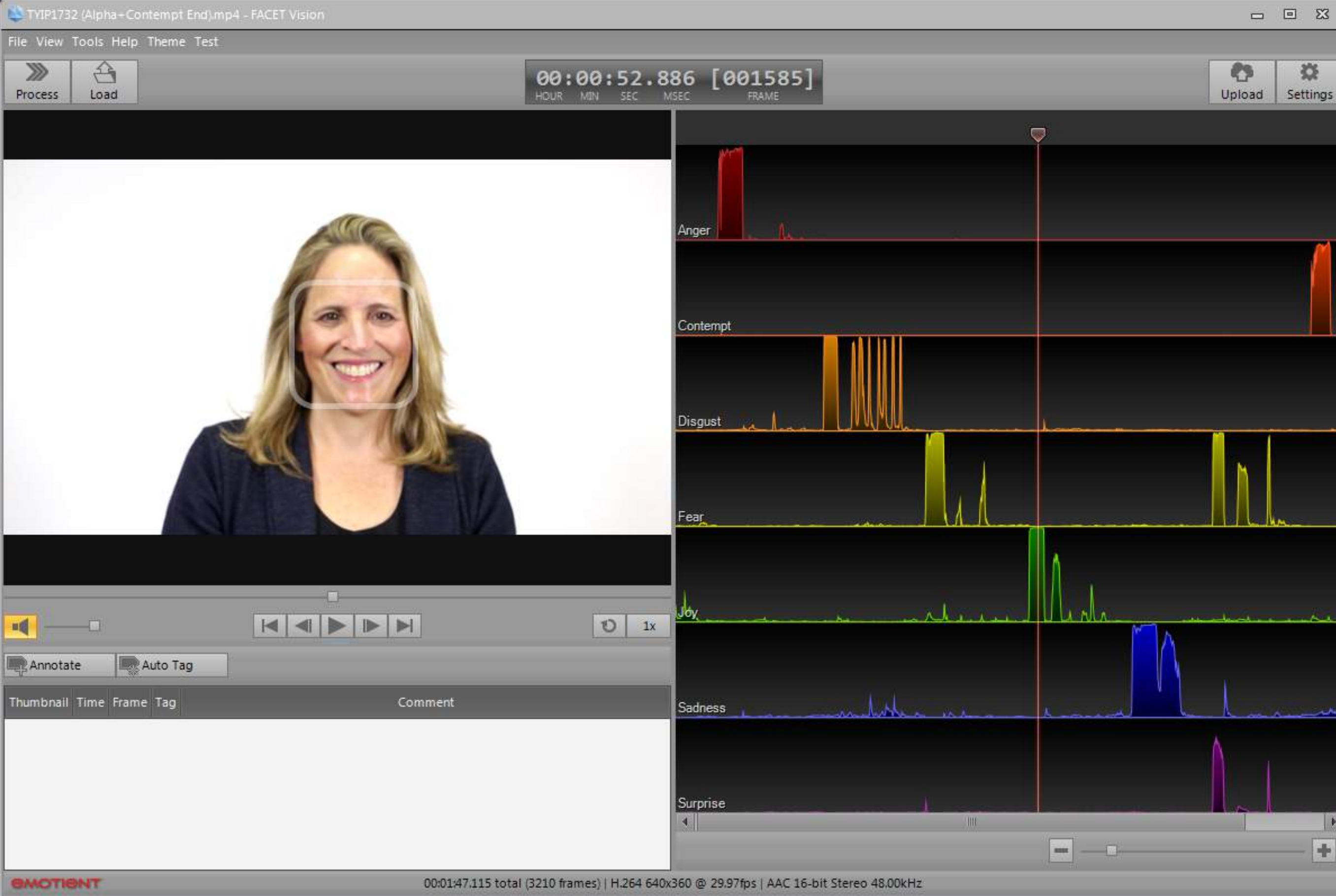
Brand marketers will need to shift from building strategies around keywords and phrases to providing value through solutions. This means placing an even heavier emphasis on data and analytics to uncover insights into how your consumers behave within specific contexts and aligning solutions around those behaviors.

Currently, Google uses cards as the interface to deploy answers to queries. The next step is to provide predictive answers based on elements such as location and past online behavior.





4. Affective Datasets



Affective Datasets

The advancement of cameras, image recognition and machine learning is transforming the way we think of data. The new affective dataset includes more than just attitudes, behaviors and transactional data.

Brand marketers can now leverage images, facial expressions, body gestures and data collected from IOT-enabled devices to understand the triggers behind behavior and build experiences that anticipate their customers’ needs.

Implications: This requires brand marketers to transform their data strategy to expand beyond first- and-third party data to also incorporate unstructured datasets that capture affect and unconscious data inputs.

Overlaid with existing first -and-third party data, affective data can unlock new consumer truths, which can inform predictive modeling and contextual messaging.



Apple’s purchase of Emotient last year may provide a solution to leverage the camera as a sensor to capture emotional data that can inform Siri to provide new types of predictive solutions.



5. The Rise of eSports



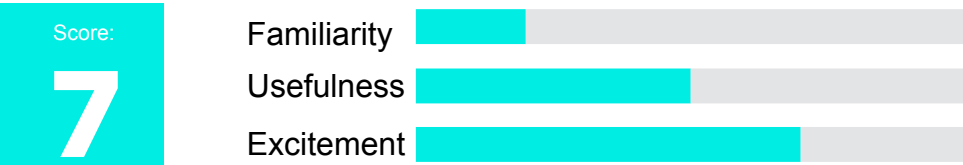
eSports



One way to connect with fans of eSports is through co-creation of custom in-game content to enhance the connection to their favorite teams and brand association.

Digital is cannibalizing live-action sports. More people watched the League of Legends Championship than the 2015 NBA finals between the Cavaliers and Warriors. Viewership is expected to top 300 million viewers in 2019 and generate \$1.1B in revenue. In 2017 we expect to see viewership, tournaments and the rise of new teams and influencers that will empower brand marketers to connect with those interested in “athletics of the mind.”

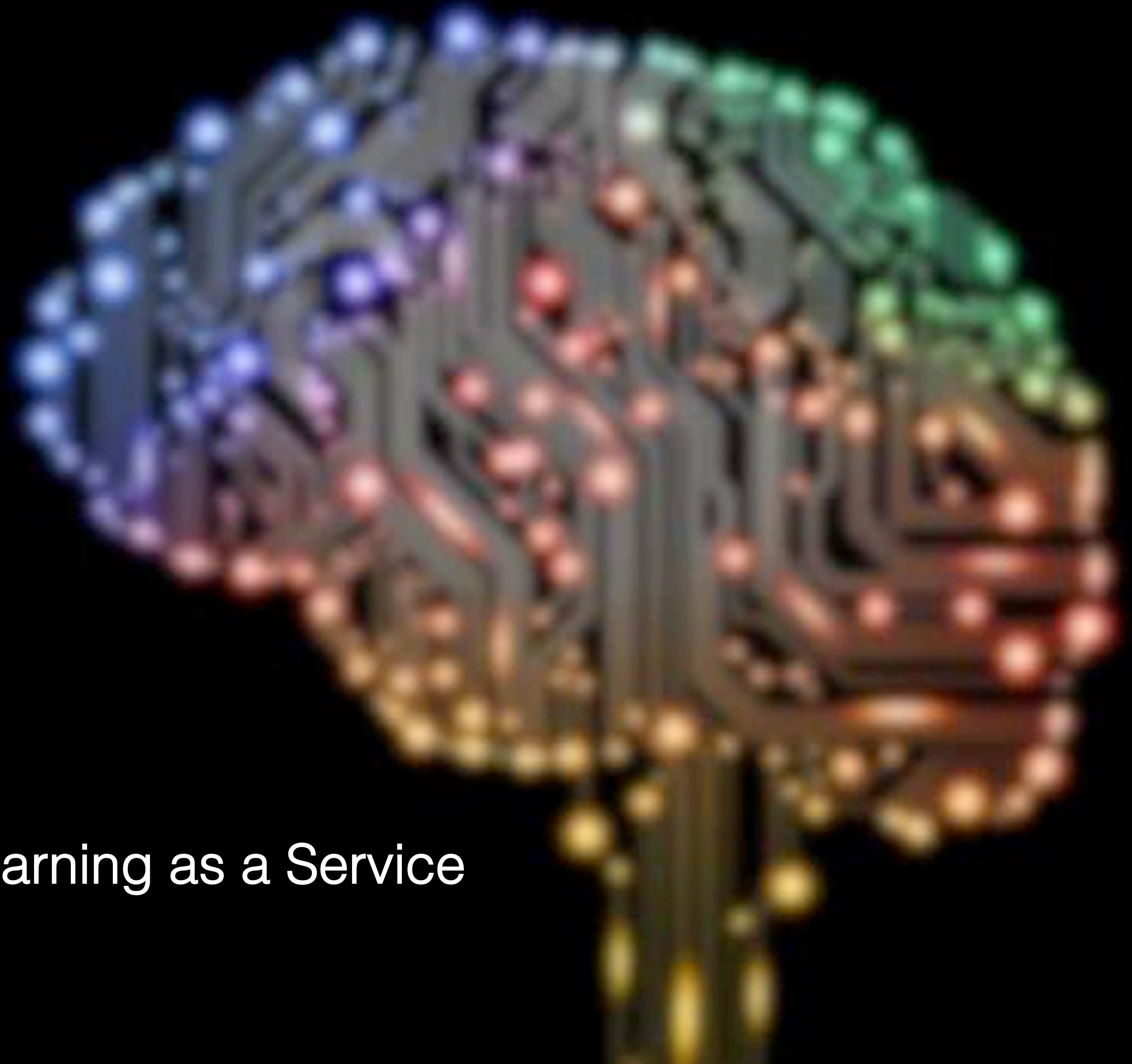
Implications: As younger audiences turn away from cable subscriptions, eSports provides brands a fresh way to connect with them live. Brands need to define an eSports strategy and the role they want to play. From sponsorships, team ownership and hosting of tournaments, to leveraging our eSports data solutions to align eSports fans with teams and products, to co-creation of in-game experiences. eSports will play a key role in connecting with highly coveted consumers in 2017.





COGNITION





6. Machine Learning as a Service



Decoding the Influence Eco-System

Machine learning and AI to **sense demand** in this transparent and hyper-connected marketplace



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+



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DEMAND SIGNAL
Combination of consumer
choice drivers

OCCASIONS
Usage context

ATTRIBUTES
Features

PERCEPTION
Emotions, beliefs, and
judgments

About the consumer

LOCATION
Geographic

DEMOGRAPHIC
Gender & Generation

PERSONALITY
Openness, Conscientiousness, Extraversion,
Agreeableness, and Neuroticism

Combining demand signals from third-party unstructured data with first-party data assets unlocks our approach to data design.

Machine Learning (ML) as a Service

In 2016, consumers were first exposed to ML through self-learning bots and assistants like Siri and Alexa that were able to self-learn in a contained environment. The learning was only available within the respective ecosystems.

In 2017, ML will become a cloud service that brands can leverage to transform products and services into self-learning smart objects that can understand and take your consumers behaviors and predict their needs and preferences.

Implications: Brands can deploy ML services to discover deep insights in unstructured data and use that data intelligence to personalize conversational experiences and optimize analytics. The key is to align the right data inputs with what product/service opportunities you want to optimize and establish a measurement framework to measure performance.





7. The Emergence of Centaur Intelligence



Customize Your Granola

Create your own Bear Naked granola recipe with over 50 different chef-inspired ingredients. Then, blend them with the help of our good friend IBM Chef Watson to create the perfect tasting granola. We've got everything from jalapeños to pomegranate arils, so go wild!

START BLENDING NOW

Bear Naked, a granola company, uses the same approach as Stitch Fix by using artificial intelligence to recommend ingredient combinations for their customers to customize their very own granola mixes

The Emergence of Centaur Intelligence

The advantage of AI over human intelligence is its ability to compute at rates beyond human capability and automate tedious tasks and processes that interfere with the customer experience. What it lacks, however, is the human touch of understanding the cultural context and the ability to think creatively and add a layer of empathy to bring meaning to ideas. The key is to combine the two in the form of Centaur Intelligence, which is the AI enhanced by human interaction.

Stitch Fix decided the best approach was to leverage algorithms to identify designs and use human curation to recommend to their customers.

Implications: When deploying a Centaur Intelligence strategy, brands need to identify what type of interactions can be handled by an AI system and what requires more of a human touch to align cultural context. The key is to first align your data inputs with outputs and then find the right human talent to apply that intelligence.





8. Blockchain and AI



Blockchain and AI

The benefit of IOT and connected smart devices lies in their ability to communicate with each other to optimize and personalize experiences. Soon, AI-powered assistants will be able to perform the same tasks by talking and exchanging value with other assistants without the input of their human owner.

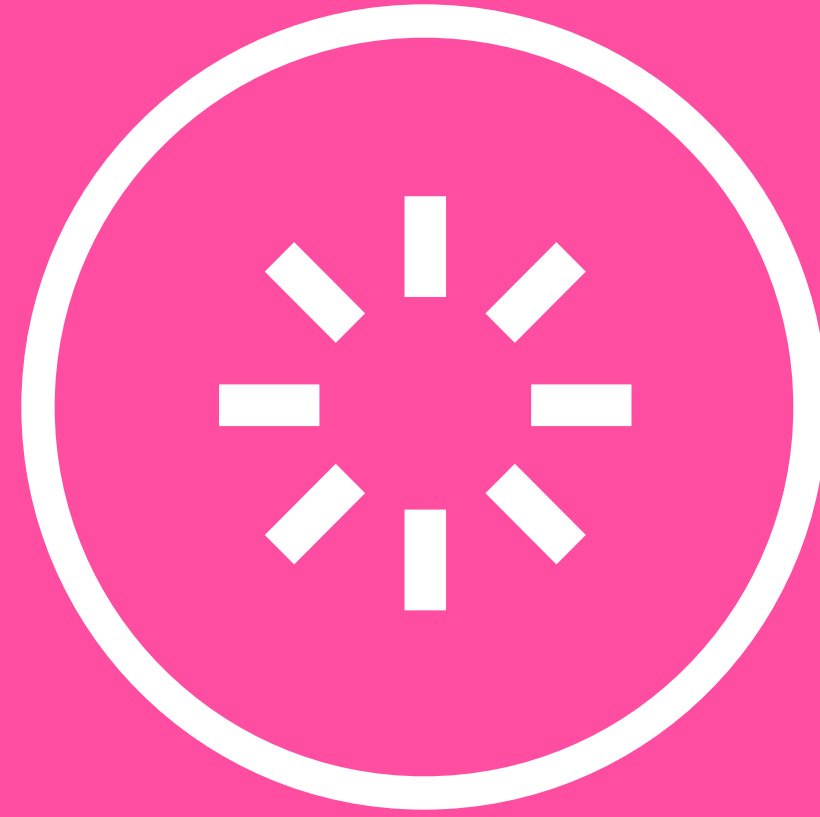
This will make value exchange frictionless, but these AI assistants will need data input to understand which transactions are safe. This input will come from Blockchain, which is a decentralized database that stores a register of assets and transactions across peer-to-peer networks.

Implications:

The implications of combining these two technologies could fill volumes of technical text. However, two of the most pertinent are the impact on enhancing the ability of current AI assistants like Siri and Alexa to facilitate transactions that are far more complex than possible today and securing the operations of an AI agent to ensure they act in the best interest of the user.

Adding Blockchain's ledger-based system of checks and balances could be used to significantly enhance transactional capabilities of AI, while also keeping the actions of these autonomous systems in check.





IMMERSION



9. The Democratization of VR





The Democratization of VR

New headsets and cameras from Nokia, Google and Microsoft and third-party content-creation platforms will drive a shift towards the democratization of VR.

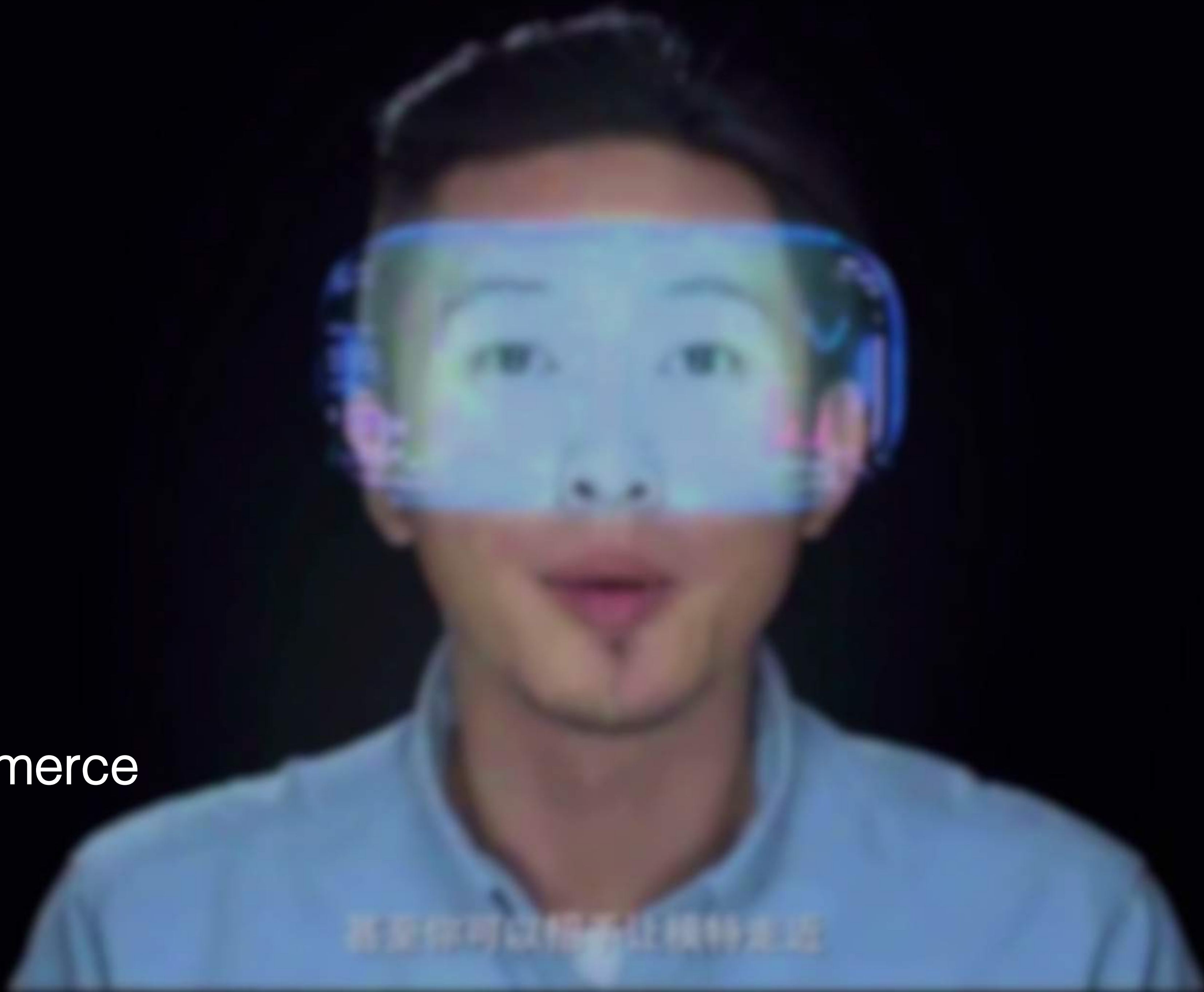
This will allow consumers to shift the narrative from consuming stories to making stories. The key to mass adoption over the past decade has been when consumers feel empowered to explore, create and amplify their experiences.

Implications: VR provides brands with the ideal platform to contextually connect as it aligns presence and emotion with immersive environments. Look for opportunities to empower consumers to create 3-D and virtual content. This can be through embeddable VR viewers in-product or partnering with a 3-D photo startup to empower consumers' creations.

In the latest update to Windows, Microsoft is enabling the democratization of 3-D creation. The user-created content can be seamlessly uploaded to be viewed in VR headsets, As a result Minecraft players will be able to view and explore their creations within a virtual environment.



10. VR Commerce





Alibaba, the Chinese e-commerce company, announced their VR commerce platform called Buy+ that allows customers to shop in any mall around the world and buy products with a flick of their heads.

VR Commerce

About 10 million more consumers shopped online during Black Friday than in stores. Consumers are turning to mobile and digital experiences but still need to feel that in-store presence that website and app experiences lack.

The introduction of VR as a new shopping platform provides a connection between physical and digital by simulating shopping environments where not only can they try on virtual items, but also shop with distant friends and family.

Implications: VR provides brands a way to empower their customers in such a way that they are in full control of the shopping experience. With VR, brands can develop contextual hotspots that can promote additional points of discovery to learn more about products and seamlessly connect to different parts of the store. Additionally, since data is tied to the user, VR removes the friction from paying or waiting in lines.





11. Social VR



Social VR

Social media has led to the rise of consumer empowerment and new forms of interaction that have created new business models and redefined how we connect with consumers.

Facebook has stated they view Virtual Reality as the next evolution of computing, and the ability to create the sense of presence with friends and family and enable fun experiences without any friction will make it the most social platform ever.

Consumers can connect in unlimited ways and in any place imaginable, whether it's playing cards at the bottom of the ocean or exploring the craters of Mars.

Implications: VR provides brands with unlimited possibilities and contextual moments to connect with their customers. The key is to put your customers first and think beyond passive consumption to solutions that are interactive and empower your customers to actively participate or socialize with friends within the environment.

Score:
7



In the Social Demo VR, Oculus showcased how users can transport anywhere, play games together, receive video calls from Facebook Messenger and even take selfies with their group.



12. (Re)Mixed Reality



(Re)Mixed Reality

The advancement of image recognition and machine learning is turning the camera from a device that captures moments to a portal where consumers can transform objective reality to something that is subjective and a reflection of their taste and self-expression.

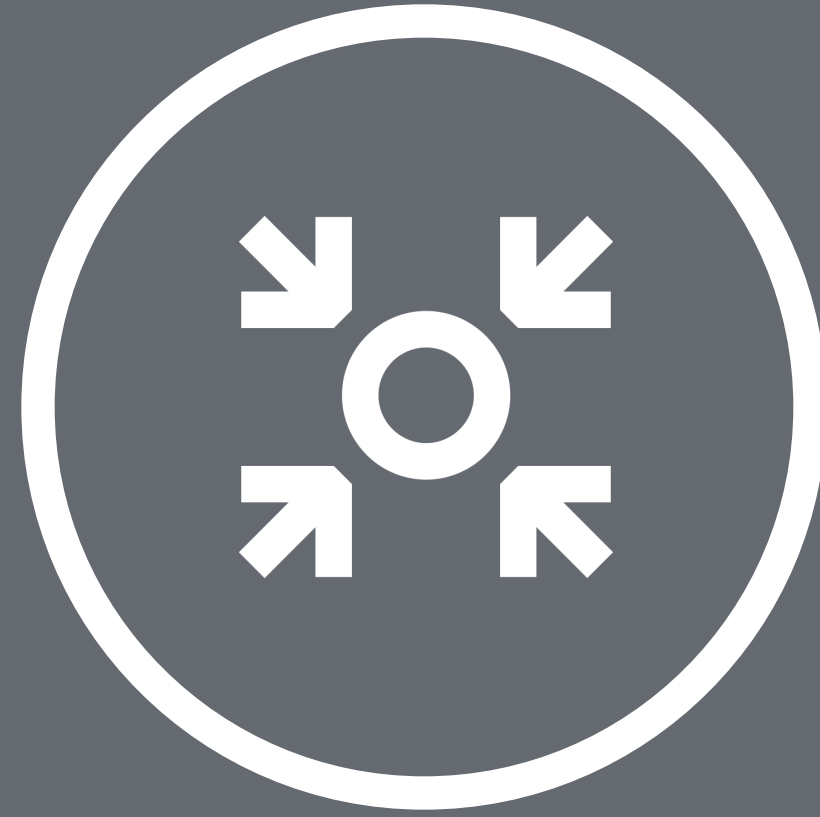
Filters, masks and stickers are not just a visual form of communication, but tools brands can leverage to empower consumers to create their own immersive worlds.

The camera is becoming the initial testing ground for augmented reality. Be it Snapchat or Pokemon Go, the ability to digitally augment our world will be a key focus of 2017.

Implications: The ability to recognize and augment moments is the highest form of contextual connection and commerce. Brands can take advantage of the camera's image recognition by creating lenses, filters or stickers that can both drive affinity and become contextual points to drive local discovery and frictionless purchase.



The Snapchat camera can already recognize your face and augment with content. With the latest World Lenses update, users can augment situations with fun, engaging lenses. Next year we will see additional discovery features that will essentially turn Snapchat into a contextual search engine.



**ZONE OF
CONVERGENCE**





13. The Next Mobile Platform: Cars



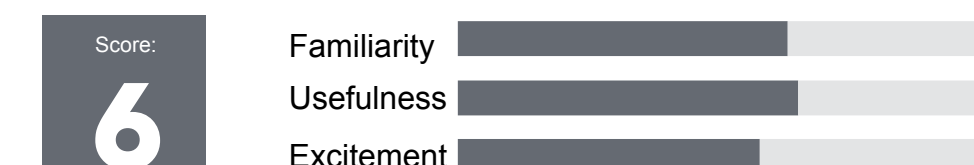
The Next Mobile Platform: Cars

By 2030 there could be as many as 44 million autonomous cars and connected cars on public streets. This push is led by most of the largest car companies and high consumer demand.

This combined with 5G connectivity will shift the driving experience from pure utility to an entertainment focus where consumers will seamlessly extend in-home and voice-based experiences while they commute.

Implication: By removing the task of driving, autonomous cars represent a new way for brand marketers to reimagine how to connect with consumers in transit as well as collect in-transit telemetric data that can provide insight into in-transit behavior and consumption.

Commuting will become an opportunity to create highly engaging brand experiences and contextual connection for local business to drive foot traffic and sales.



One of the stars of the MWC show was the Mercedes F 015, which represented a partnership between Qualcomm and Mercedes-Benz. This autonomous car of the future provides a glimpse at potential form factors for luxury autonomous vehicles.



14. Holographic Computing



Holographic Computing

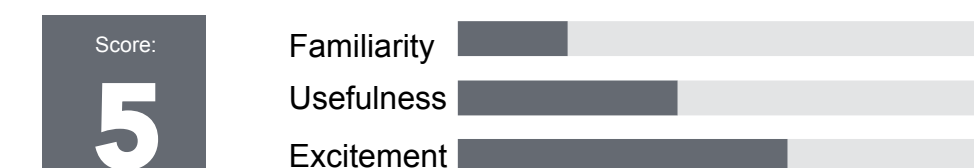
Moore's law is tearing down the barriers to achieve full-scale holographic displays that have awed consumers of sci-fi movies like *Star Wars* and *Iron Man*.

Holographic displays are the most natural and frictionless way to view and interact with three-dimensional content in a shared environment. More importantly, as we move toward voice-based conversational experiences, three-dimensional holograms are a natural solution to provide visual feedback since they don't require smartphone screens.

Implications: Holographic computers, such as Microsoft's Hololens, live at the intersection of connection, cognition and immersion. In addition to being a high-impact display, the real power of holographic computing provides brands with capabilities to create products and services that look and act as real as the real thing, however also providing consumers with the ability to hyperpersonalize to their preferences and taste.



RealFiction makes in-store displays for brands to showcase their products. The display comes preloaded with holographic animations or brands can customize the animations to fully amplify the display effect.





The Technology North Star

Ambient Computing



As technology matures it becomes so ingrained into our society that it fades into the background and disappears. We forget electricity and ambient light were once expensive and hard to access, but today we forget how central they are to our lives. The same is happening today with the internet and software — everything is becoming connected and smart. Next will be AI, Machine Learning, even augmented reality and transportation. Every trend we've identified in this deck is an element that leads to the north star of consumer engagement:

Ambient Computing. Instead of consumers operating technology, the technology will be silently operating for consumers, predicting every need and behavior. For brands this means designing and deploying a solid data strategy that can both deliver contextually relevant creative and capture data.



An aerial photograph of a dense forest. The trees are mostly green, with some yellow and brown patches, suggesting a mix of species or seasonal changes. The perspective is from directly above, looking down on the canopy.

GET GROWING

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Questions or inquiries can be sent to
InsideSales@epsilon.com

Survey data based on marketers response to how familiar, excited, and useful
they think the trend will be for consumers.
The overall number is the mean score of excited and useful.

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