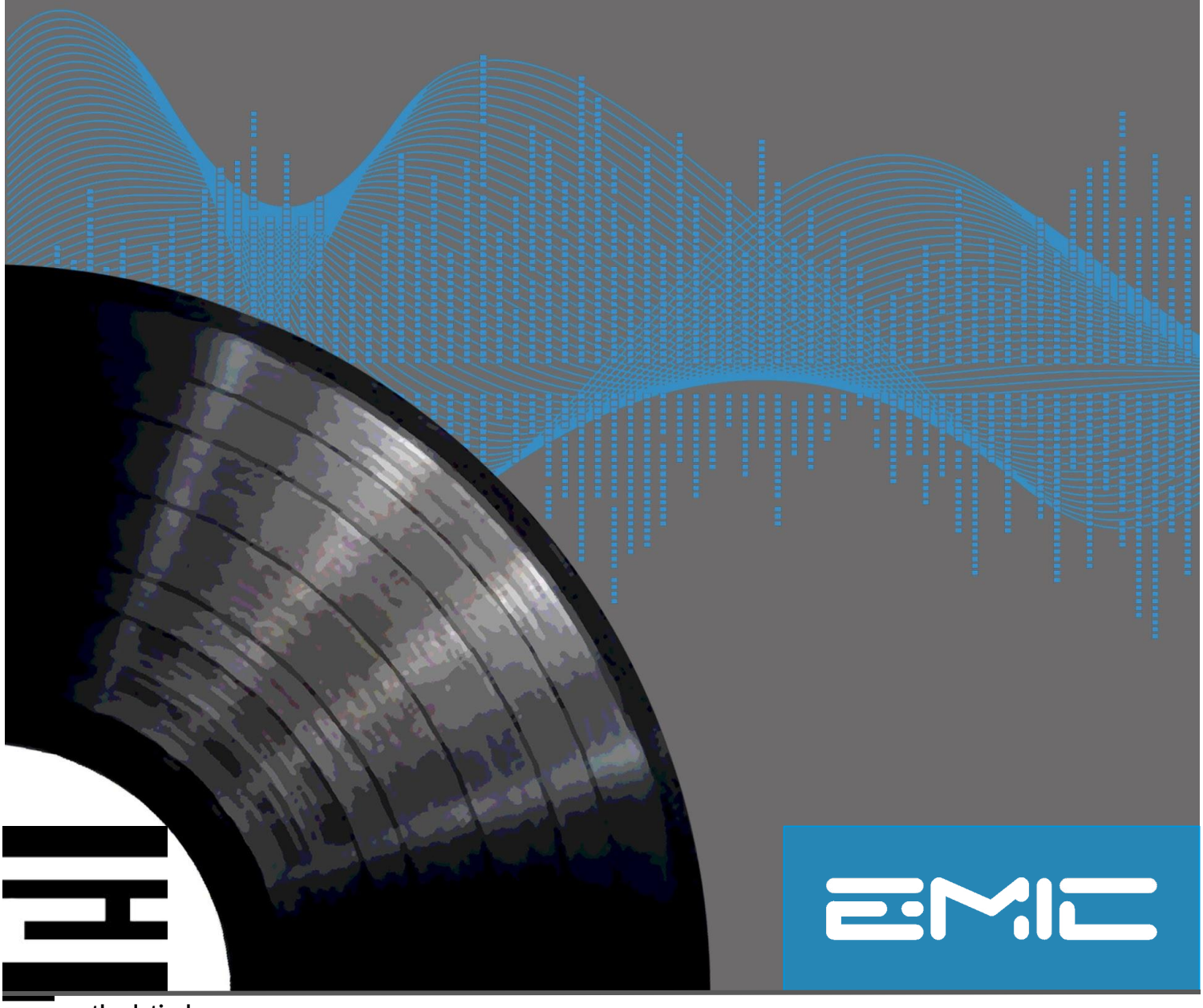
ANALOG INSIGHTS IN A DIGITAL WORLD

Looking for Nuance in the Variability of Consumer Perception



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ANALOG INSIGHTS IN A DIGITAL WORLD

By all accounts we are securely in the midst of a new social paradigm defined by the digital revolution and the underlying data that both creates, and is created by, digital technologies. Our lives have changed in interesting ways as a result of the growing impact that digital technology has on our daily experiences and the digital footprint that we leave behind is often pointed to as a panacea for researchers, marketers and influencers who want to understand and impact human behavior.

The increasing 'digitization' of our lives does not however mean that our essence as humans, who are inextricably influenced by the millions of years of evolutionary history before the arrival of *Homo sapiens digitalus,* has changed. The fact that digital technology is an integral part of our day-to-day lives does not mean that digital inputs and outputs define our experience, or that our perceptions and actions can be easily and neatly reduced to discrete digital units.

Human behavior and perception is much more than just quantitative digital data

Human beings are extremely complex and unpredictable beings. While technology changes the way that we interact with the world by both simplifying and complicating our lives, we must also recognize that changes in technology both simplify and complicate our efforts to understand the ways in which we think about and act in the world. What we do believe, however, is that the complexity of our multilayered lives can never be reduced to a quantitative statistical analysis of digital data simplified as a representation of ones and zeros.

In contrast to the significant and growing impact of the digitization of consumer experience, we seek to return to the core of our humanity by exploring and revaluing analog approaches and philosophies of research and analysis to

uncover the nuance and complexity of consumer perception and behavior as experienced by human beings as individuals and in socio-cultural groups. Consumer perception and behavior is much more than just quantitative digital data. While quantitative and digital approaches to data collection and analysis are extremely valuable in certain contexts they simply cannot capture the full and rich variability of motivations and emotions that define the human experience.

Comparing Analog and Digital Approaches in Music and Research

To explore the value of analog insights in a digital world we believe it is useful to compare and contrast analog and digital approaches to research and music in an effort to provide context for how a qualitative 'analog' approach offers greater fidelity for understanding complex human issues.

Digital \'di-jə-təl\ - data in the form of discrete units, especially binary digits

Analog \'a-nə-ˌlȯg\ – data represented by continuously variable physical quantities

Fidelity \fə-'de-lə-tē\ – faithfulness or loyalty to the accuracy of something that is recorded

Analog and Digital Technology in Recording Sound

We are most familiar with the broad concepts of digital and analog through our experiences with, and knowledge of, digital and analog formats for capturing and rebroadcasting sound.

In today's world we know digital music as the music we download or stream from the Internet, although CDs were the first widespread digital music format. In contrast analog music is most frequently seen today through the resurgence of the popularity of vinyl records, although the recording and playback of sound had been an analog process up until the adoption of CD's.

ANALOG AND DIGITAL TECHNOLOGY IN RECORDING SOUND

The sound that human beings make, whether for speech or music, moves through the world in waves which are an unbroken disturbance of the medium, generally air, through which those waves pass. A sound wave is visualized as continual arc that is a directly formed by the creation of that sound.

When this sound is recorded through analog technology the signal from the sound wave is imprinted via grooves in a vinyl record, or magnetization for cassette tapes, creating a direct representation of the original sound wave.

By comparison, digitization of a sound wave requires sampling that original wave at specific intervals, which essentially breaks the wave down into a discrete sample of data points. Digital recordings take that analog signal and convert it into an approximate digital representation of the sound by turning the wave into a series of numbers for digital software to interpret.

The benefit of digitizing sound is so that we may package greater amounts of sound data into a more compact storage format. You can store thousands of Compact Discs in the space that is required to store hundreds of records. And now through digital streaming services we can access all of the music in the world through a device that fits in our pockets.

However with nearly every added benefit there is a drawback that must be considered. By breaking a sound wave down into a sample of the original, represented by digital data, we also lose some of the complete richness and the accurate representation, or fidelity, of the original sound wave that was created. For most average music listeners this loss of fidelity is hardly noticeable. However among audiophiles who take great pride in their appreciation of the purity of representation of the music they listen to, there is a real and perceptive difference between an analog and digital recording of the music that lights their passions.

The Evolution of Analog and Digital Research Methods

Similar to technological innovations in the recording and rebroadcast of sound, approaches to research in social science have also experienced evolutions driven by advances in knowledge and technology that have been harnessed in an effort to better understand human perception in more efficient ways. We will now look at the history of both quantitative and qualitative research to understand how the development of the underlying framework of each approach impacts our efforts to understand human behavior and thought.

Strongly Agree

Agree

Neutral

Disagree

Strongly Disagree

A Brief History of Quantifying Human Thought and Behavior

The original attempt at the "digitization" of the human experience through analyzing perception and behavior is seen in the attempts to quantify beliefs and opinions through the field of surveying. Surveying as a structured field began in the 1930s as a way for journalists to build on the ‘‘man in the street’’ interviews through the objective statistical power of quantitatively measuring attitudes.

This movement from unstructured open-ended qualitative interviews to more structured questions with discrete answer choices drew on advancements and developments in psychology and statistics. In 1929 social psychologist Rensis Likert's noted that practices in intelligence measurement could be applied to surveys, and the Likert scale, most frequently seen as a five-point agree/disagree rating scale

which is still the most widely used scale by which we measure human perception today, came into widespread use.

In the early periods of the field, surveys were conducted door-to-door through face-to-face interactions with responses being recorded on paper. But technological innovations increasingly led to improvements in the efficiency with which that data could be collected and analyzed. The widespread use of telephones, computers, the Internet, and mobile devices has greatly impacted survey theory and methods with both benefits and drawbacks resulting from each shift in the consumer adoption of these technologies.

Throughout our history of quantifying human beliefs and behaviors, we have gained a great deal of knowledge about how we have changed as a people. By breaking down human perception and action into discrete digital units and analyzing that data using statistical theories of sample size, margin of error, and correlation, we have been able to make broad and wide ranging conclusions about how society and culture has evolved.

However, what is critical to understand among those who would seek to analyze these socio-cultural evolutions in greater depth - including most importantly why those changes have occurred, and the causes and impacts on human perception and action resulting from those changes - is that the basic methodology for digitizing or quantifying the human experience requires breaking down beliefs and behaviors into a sample of discrete units to simplify the process of data collection and analysis. The basic theoretical underpinnings of quantitative research, in regards to the continuous variability of human thought and action, is critically unable to capture any information that may exist between the sample selection of discrete data units. This lost information can be critically important to answer important and more complex questions about the underlying perceptions and motivations of the people who supplied the survey data.

A Brief History of the Philosophies of Qualitative Research

Before the era of quantifying human perception through surveying and statistical analysis, information about humans was solely gathered through the qualitative method of face-to-face interviews where the researcher directly engaged with people of interest.

The early underlying philosophies that are now associated with qualitative research can be traced to one of the fathers of modern philosophy, Immanuel Kant, who proposed that perception is informed not only by the senses, but by human interpretations of what the senses tell us. Through this philosophical lens the earliest proponents of qualitative research have placed emphasis on human interpretation of the social world and the significance of both participants' interpretations and understanding of the subject being studied.

Immanuel Kant 1724-1804

Max Weber 1864-1920

The concept of *Verstehen* (understanding in German), developed in part by one of the fathers of sociology, Max Weber, is another important idea that expanded the idea of how to understand the underlying roots of people's 'lived experiences' by investigating the particular historical and social context in which beliefs and behaviors form. The basic premise of the exploration of 'lived experiences' is to reveal the connections between the social, cultural and historical aspects of people's lives and to see the context in which particular actions take place.

Psychological, social, historical and cultural factors are all recognized as playing an important part in shaping people's understanding of their world and are reflected in qualitative research through the use of methods which attempt to provide a holistic understanding of research participants' views and actions in the context of their lives overall.

From these early philosophical roots of modern qualitative and social research, structured methodologies for research and analysis began to form the early years of the 20th century in the fields of anthropology and sociology as a way to describe and analyze social and cultural groups and their beliefs and actions. Qualitative research, through its basic nature of being personal, experiential, observational, and discursive in nature offers greater depth and nuance for understanding the complexity and variability of human research subjects.

What qualitative research lacks in breadth of feedback and objective statistical quantitative power across large sample sizes, it more than makes up for in depth of understanding and analyses of individual case-study explanations through the personal interactions between researcher and informant.

It is through the philosophical framework of a qualitative approach to research that we can achieve an 'analog' representation of the continuously variable human experience that in turn provides greater fidelity through offering more complete and holistic answers to the underlying questions which fulfill the distinctly human desire for understanding.

The Value of Analog Insights in a Digital World

As humans, we perceive the world in analog. Everything we see and hear is a continuous stream of stimuli to our senses. Because this is how we experience life this is also how we describe our experiences with the complexity, nuance, and imperfections that do not necessarily fit into tidy little boxes and categories. In contrast, by "digitizing" those experiences, we end up with sample interval representations of those original analog experiences symbolized by discrete numerical units of data.

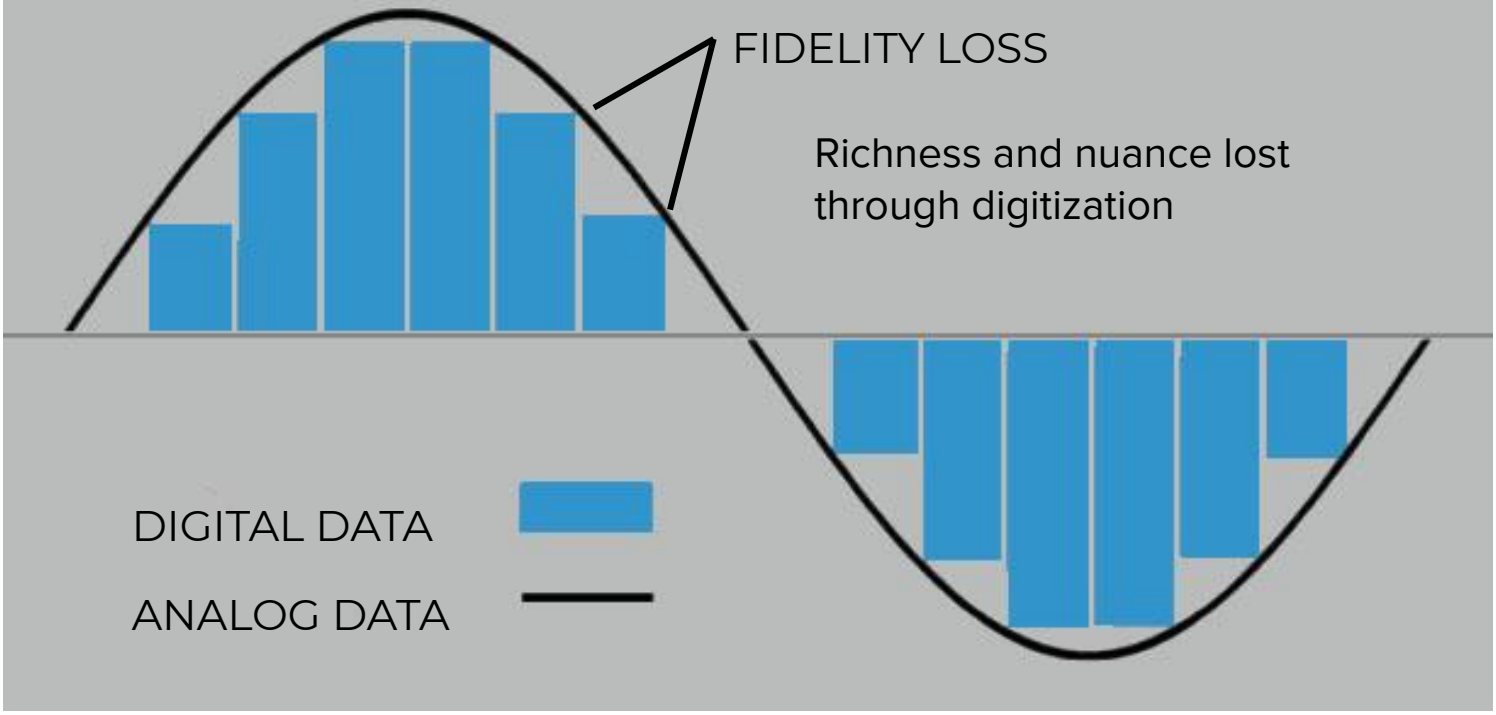
If we extend our comparison of the digitization of music to the capture and analysis of human perception and behavior we begin to see that the digitization of the human experience provides a fragmented depiction of that

original experience. While digital and quantitative data is vitally important to understanding human behavior we must be clear in its limitations. While quantitative digital data can give us a broad surface understanding of macro trends of interest in the world, without qualitative research which investigates the complexity of the influences that drive those trends, our explanations about why these trends are occurring are based on an interpretation that is grounded in hypotheticals.

Another disadvantage of developing future strategies based on digital data, is that what people have done in the past does not necessarily predict what people are going to do in the future. If it is future behavior that we are trying to influence we must gain a deep understanding about why people do what they do which is best uncovered through personal conversation and observation.

An analog approach to the research and analysis of humanity requires an empathetic

VISUALIZATION OF ANALOG VS. DIGITAL DATA



understanding that is far removed from the overarching specificity and detached objective theoretical framework that is the defining feature of quantitative research. This empathetic understanding brings the researcher closer to the lived experience of those who we would seek to understand.

Digital data, quantitative surveys, and statistical analyses of groups of people have their place in our effort to understand human perception and behavior but we must acknowledge its limitations to answer the complex questions which are significant to those who would influence humanity. Similarly qualitative research and the analog data that is gathered through qualitative research methodologies does not necessarily provide value for every research project or research question. However, the benefits that it offers in providing context, nuance and depth of understanding are incredibly powerful for those who seek strategies for influencing target audiences as opposed to simply understanding them.

The Importance of Speakers

In keeping with the analogy of analog versus digital technology in music, it is also critical that we do not leave out the final step by which sound reaches our ears and brains. Whether original sound has been captured through analog or digital technology, it must eventually be converted back to analog sound waves for us to be able to perceive that sound through our ears.

Looking at the grooves on a record or the underlying data files of digitized music does us no good unless that information is converted back into sound waves. This is where the speakers are of critical importance to the process.

The fidelity of a recording, whether digital or analog, can be ruined by poor quality speakers. The speakers should accurately represent the original sound as it was produced with no variation of loudness of different frequencies (i.e., bass, midrange,

treble). Additionally the materials that are used to construct a speaker system and the way those elements are assembled also affect the final sound quality.

Similarly, converting the raw representations of human belief and behavior, whether collected through qualitative or quantitative methods, to a form which is understandable, accurate and insightful requires an adherence to the original meaning of the information collected.

By maintaining the fidelity of the original information, without artificially over-representing specific frequencies of information we seek to create an accurate representation and analysis of human perception and behavior from the insider's perspective. As an 'outside' researcher is also however important to highlight those areas of analysis which stick out as particularly insightful as a result of an outside objective interpretation which completes the analysis process.

The Benefits of Both

It is also imperative that we additionally acknowledge the benefits of mixed method approaches which draws on the strengths of both qualitative and quantitative research approaches. Through an analysis of both digital and analog data we can best create holistic insights about where consumers have been, are currently, and are moving towards in the future. The most rigorous research draws on the objective strength of numbers and statistics, in conjunction with the subjective nuance and complexity of emotion and perception. Through this holistic effort we can develop a complete picture of both the amplitude and frequency of target audience beliefs and behaviors as well as the underlying influences that impact those perceptions and actions.

Conclusion and Conviction

We are fervent in our belief of the value of qualitative research to uncover the continuous variability of high fidelity analog insights in an effort to truly understand the nuance and complexity of consumer and human behavior. Digital and quantitative data serve their rightful place in the effort to understand perception and behavior but when seeking to understand how culture and society impact and influence consumers, qualitative and mixed method research is the best way to uncover actionable insights and develop practical theories and strategies to be used to transform culture in a way that benefits an organization's consumer focused goals.