Action Brief: The Growing Significance of AI-Powered Hyper-Personalization in Digital Marketing

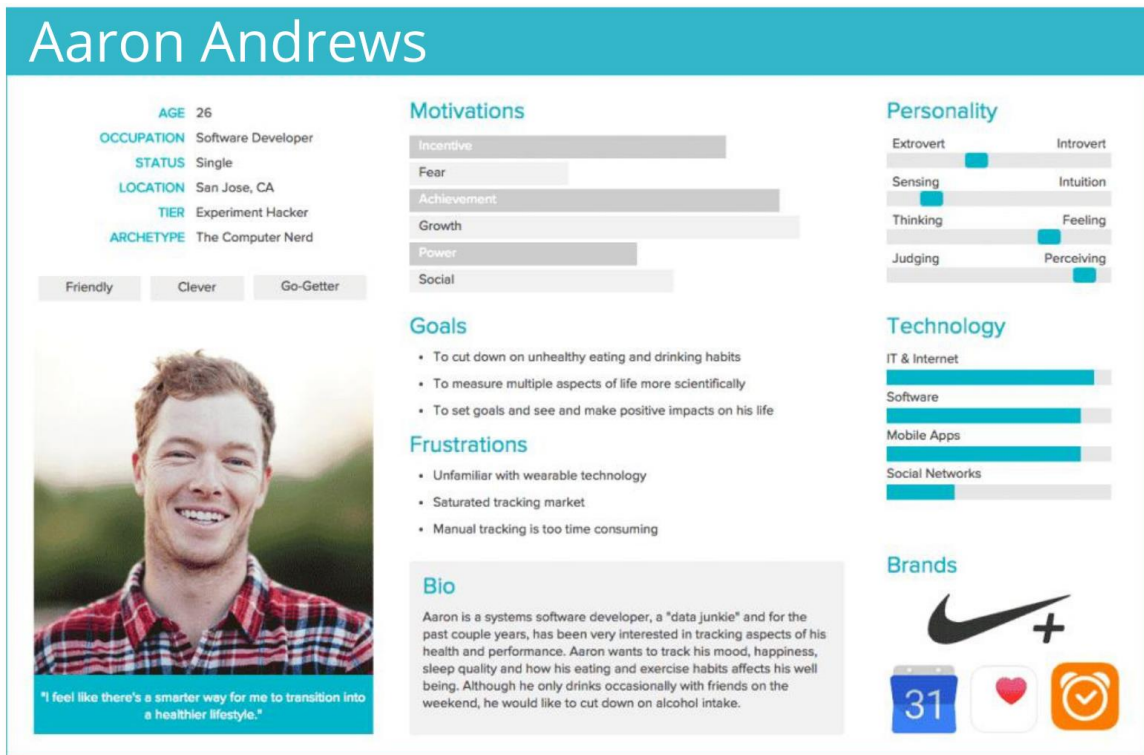## Part One: Personas and the Hyper-Personalization Evolution

During a series of focus groups MBA Research and Curriculum Center conducted in Fall of 2021, leaders in digital marketing discussed the rising importance of technology-powered hyper-personalization and its impact on personas, privacy, and the future of business. The following Action Brief is a synthesis of their insights and findings from additional research. It is part one of a three-part series on digital marketing called *The Growing Significance of AI-Powered Hyper-Personalization in Digital Marketing.*

This week, we'll discuss marketing personas and the hyper-personalization evolution.

What are personas, anyway?

In the early 1980s, software developer Alan Cooper described composite customer archetypes as "personas," a term characterizing the identity and purchasing habits of a typical consumer within a target market. A persona profile seeks to describe an 'imagined' person and typically consists of a fictitious name, demographic information, and details about the person's behavior, needs, wants, and goals.

Check out this example from Patrick Faller's article, "Putting Personas to Work in UX Design: What They Are and Why They're Important":

Essentially, personas translate the data into a story.

Why are personas used?

Businesses use personas to understand how customers search for, purchase, and use products and/or services, which then enables companies to improve the buying experience.

Personas are particularly useful for marketers, user experience (UX) designers, and anyone in the organization who handles customer data. The information about a persona's current behaviors, goals, and expectations aids in product design and development. Personas help businesses relate to and empathize with their customers, then better satisfy their needs.

How are personas developed?

For a persona to be useful and reliable, it must be based in reality. Even though a persona is a semi-fictional character, it is created from *real* users and *real* experiences—not stereotypes—and gathered from a variety of sources, including focus groups, surveys, market research, and statistical analysis.

Organizations use data from publicly available sources, such as national statistical and demographic data, as well as the company's customer data to develop distinct personas. Useful, nuanced personas are based on both customer interviews and hard data. The combination of both qualitative and quantitative data is vital for gleaning insightful behavioral patterns from the data.

Doing so enables companies to increase customer retention and conversion. After developing these personas, researchers validate them and ensure relevancy by comparing with real customers on a regular basis.

The best personas are highly detailed, robust profiles that are built from a wealth of data. Businesses ultimately create personas to deliver unique, personalized customer experiences. As technology advances, organizations have access to more data than ever before.

Personalization vs. hyper-personalization

Personalization is the act of customizing an experience or communication to a specific individual or group based on the personal and transactional information gathered about that consumer. Think companies using your name in the subject line of an email. Hyper-personalization refers to the use of AI and behavioral data to customize user experiences in real time. Hyper-personalization goes beyond traditional personalization in its scope and power.

According to the article "Hyper-Personalization: The Next Wave of Customer Engagement," displaying only certain sections of a website depending on users or sending push notifications when customers are most active are examples of hyper-personalization in action.

It's important to mention that hyper-personalization isn't industry specific. Consider the following examples of personalization from Kathleen Walch's article "8 Examples of AI Personalization Across Industries":

- Content (e.g., personalized message boards at drive-throughs, personalized style recommendations on clothing sites)
- Messaging (e.g., tailored email content, targeted messages)

- Ad targeting (e.g., AI placing better ads based on real time factors like demographics, behaviors, and buying history)
- Recommendations (e.g., machine learning algorithms develop more related and relevant recommendations in real time)
- Websites (e.g., using big data to automatically customize content displayed on website by visitor based on site behavior, purchase data, repeat vs. first-time user, etc.)
- AI-powered chatbots (e.g., gather comprehensive data and deeper insights from users)
- Better customer sentiment analysis (e.g., help marketers identify true sentiment by observing and analyzing instead of generalizing and guessing)

The transition from personalization to hyper-personalization is largely powered by AI and Big Data.

This series is part of the research we conducted for the development of our 9-week Digital Marketing course, coming in Summer 2022. Stay tuned for Part Two, where we'll dive into the relationship between hyper-personalization and artificial intelligence.

Resources for Further Learning:

- Why AI Makes the Human Touch Even More Important in Personalization
- Personas vs. Personalization: Should Both Be Part of Marketers' Toolkits?
- Hyper-Personalization: The Next Wave of Customer Engagement

Reflection Questions:

- Are there any ethical concerns with making assumptions about groups of people?
- How can marketers and businesses engage in ethical persona development and tracking?
- What guidelines should researchers follow to create user personas that are both fair and accurate?
- How should companies balance fairness and trust from a consumer standpoint?

Sources:

- Best Practices on Creating Effective Personas
- How Are Personas Used in Real Organizations?
- Complete Guide: How to Create Personas Based on Data
- How To Use Personas? Listing Typical Persona Use Cases
- Putting Personas to Work in UX Design: What They Are and Why They're Important
- The Complete User Analysis Guide: Personas to Design to Analytics
- How To Create Highly Accurate Customer Personas for Marketing

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Part Two: Hyper-Personalization, Brought to You by Artificial Intelligence

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Last week, we discussed marketing personas and the hyper-personalization evolution. Now, we'll discuss the relationship between hyper-personalization and artificial intelligence.

To summarize:

- Personalization is the act of customizing an experience or communication to a specific individual or group based on the personal and transactional information gathered about that consumer.
    - Think companies using your name in the subject line of an email.
- Hyper-personalization refers to the use of AI and behavioral data to customize user experiences in real time.
    - Hyper-personalization goes beyond traditional personalization in its scope and power.
- Examples of personalization include messaging, ad targeting, recommendations, AI-powered chatbots, and more.
- The transition from personalization to hyper-personalization is largely powered by AI and Big Data.

What is AI?

Artificial intelligence (AI) is the ability of machines to simulate human thinking capabilities and execute tasks with limited human intervention. AI gives organizations the ability to analyze enormous amounts of data from a plethora of sources and draw conclusions in the blink of an eye.

Machine learning, a branch of AI, is the way in which a computer system *builds* its intelligence. Powerful computers analyze huge quantities of data, then create rules based on patterns. The computer tests those rules as algorithms on new data sets and improves its predictions as it learns. The machine learning system self-trains through experience.

How do companies use AI for hyper-personalization?

The field of AI enables organizations to create increasingly tailored, deeply personalized, unique user content to meet customers' expectations for highly personalized experiences. AI and machine-learning applications model existing customer behaviors and preferences, then test different messaging content and styles, serving as a proxy for human focus groups, which means less money, time, and effort spent compared to using real people.

In addition, AI helps tailor personalization to real people and personal characteristics, not just models. Machine-learning systems gather the transactional and behavioral data from consumers, then decide which messaging and delivery methods work best for the specific persona. Businesses create baseline materials, then use AI to tailor to the specific customer. Tailored content and user experiences drive engagement, build customer loyalty, increase sales, and help companies better understand their customers, meaning they can craft better products and user experiences.

Using the speed and depth of information available from AI technology, businesses can create personalized content that matches customer preferences using profile data, location tracking, browsing history, and purchasing decisions.

Part of the challenge of omnichannel marketing, which focuses on delivering a consistent experience across all channels, devices, and platforms, is integrating consistent messaging across *all* points of contact (e.g., website, mobile apps, payment portals, etc.). It can be difficult to maintain consistency as devices and touch points change over time. AI addresses this issue by constantly updating personas with real-time information from customers gathered across channels.

What are the benefits for customers?

From the customer's perspective, hyper-personalization simply makes life easier. Time is valuable, and the less time customers spend sifting through irrelevant content or repeating their concerns, the more likely they are to take action (e.g., make a purchase, contact the business, download a file, etc.). When it's simple to solve a problem or find an answer, you're much more likely to develop brand loyalty.

Think of your video or audio streaming services' personalized "For You" recommendations, which are seamlessly integrated in the platform and at times seem to read your mind. According to Gibson Biddle's extensive article, "A Brief History of Netflix Personalization," the streaming service takes into account time of day, recent activity, platform, personalized visuals (movie artwork), percentage match, relevant filters, and more, all based on each individual customer's preferences. Every time you open the app, try a new show, or switch back to an old favorite, Netflix is gathering data to further personalize your experience and keep you coming back.

As you can see, AI and machine learning applications are powerful technologies in any industry. They extend the reach of personalization, but we would be remiss not to mention the risks associated with the responsibility.

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This series is part of the research we conducted for the development of our 9-week Digital Marketing course, coming in Summer 2022. Stay tuned for Part Three, where we'll dive into the ethical implications of artificial intelligence-powered hyper-personalization.

Resources for Further Learning:

- [Why Hyper-Personalization Is the Future of Marketing (And How to Do It)](#)
- [Connecting with Meaning: Hyper-Personalizing the Customer Experience Using Data, Analytics, and AI](#)
- [Ethical Personalization: Weighing Benefits and Risks](#)

Reflection Questions:

- What factors should businesses consider when creating responsible AI practices?
- How would you describe AI-enabled hyper-personalization to a friend?
- What are some examples of personalization (and hyper-personalization) in your life (e.g., at school, at work, in extracurriculars, at home, etc.)? Have you ever experienced personalization that was *too* personal? Describe your experience.
- Weigh pros and cons associated with machine learning.

Sources:

- [Marketing Personas and AI](#)
- [8 Examples of AI Personalization Across Industries](#)
- [A Brief History of Netflix Personalization](#)
- [Is Hyper-Personalization the Next Big Thing in Business?](#)
- [What is Hyper-Personalization and Why Is It a Key Customer Experience Component?](#)

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Part Three: Ethical Implications

During a series of focus groups MBA Research and Curriculum Center conducted in Fall of 2021, leaders in digital marketing discussed the rising importance of technology-powered hyper-personalization and its impact on personas, privacy, and the future of business. The following Action Brief is a synthesis of their insights and findings from additional research. It is the final installment of a three-part series on digital marketing called *The Growing Significance of AI-Powered Hyper-Personalization in Digital Marketing.*

Last week, we discussed the relationship between hyper-personalization and artificial intelligence. Now, we'll discuss the ethical implications of AI-powered hyper-personalization.

To summarize:

- Artificial intelligence (AI) gives organizations the ability to analyze enormous amounts of data from a plethora of sources and draw conclusions in the blink of an eye.
- Machine learning, a branch of AI, is the way in which a computer system builds its intelligence.
    - The machine learning system self-trains through experience.
- The field of AI enables businesses to create increasingly tailored, deeply personalized, unique user content to meet customers' expectations for highly personalized experiences.
    - In addition, AI helps tailor personalization to real people and personal characteristics, not just models.
- From the customer's perspective, hyper-personalization simply makes life easier.

What are the risks and ethical considerations?

The benefits associated with AI technology and machine learning applications are clear. However, these tools carry their own set of unique challenges, risks, and ethical considerations. Keep in mind that AI is a relatively new technology, still in its infancy—its evolution and development is ongoing.

A major risk surrounding AI technology concerns regulatory compliance and data privacy. Data protection legislation like the General Data Protection Regulation (GDPR) in the EU, California Consumer Privacy Act (CCPA), and other laws regulate online privacy rights. Other concerns include ethical data use and sharing and working with sensitive data safely. For example, researchers must use anonymized behavioral data from website browsing. Consumers need to be able to trust that companies aren't misusing their private information. It's crucial to balance data security and privacy with digital personalization.

Persona tracking involves gathering the information necessary to create accurate, detailed user personas without veering into privacy violations and the 'uncanny valley.' The uncanny valley is the relationship between an object's degree of resemblance to a human and the emotional response it evokes. Humanlike robots are fine up to a certain point, then they make us feel uneasy. The same

experience occurs with data: there's a fine line between useful digital personalization and the uneasiness of a computer knowing too much information.

Other limitations of AI for hyper-personalization include its high cost, program complexity, requirement of large amounts of data and power, and enormous investment in the data, tools, and technology. AI also has drawback when it comes to nuance and discernment. AI programs can't always read subtle signs and make the subjective or qualitative judgments that people can understand through personal contact.

Another concern is the lack of control. There is little human control involved in machine learning algorithms. Some machine learning and AI algorithms use black box models, which are created directly from data and in a way in which humans often cannot understand how it works. These systems are opaque, meaning their methods are not transparent or straightforward. This opens the door for serious ethical concerns. Just like humans, AI can make mistakes. It's important to be aware of the potential for bias and prejudice (both taught and programmed) in artificial intelligence.

AI is created by humans with their own biases—it is not an impartial technology. To be used in an ethical manner, the technology needs to be fair and transparent. According to "Rethinking Personas for Fairness: Algorithmic Transparency and Accountability in Data-Driven Personas," organizations should clearly identify how their data was collected, as well as the limitations of their data collection methods. It's important that companies use both qualitative and quantitative information—relying purely on quantifiable information can create a skewed picture. Researchers should consider outliers and marginalized groups when using data-driven personas and emphasize diversity within the personas.

Living in harmony

It's clear the relationship between AI and humans is a complementary one: Our capacity for strategic thinking, creativity, and empathy balances the data-processing, hyper-personalization capabilities of AI. Hyper-personalization technology is woven into the future of business—the challenge is to what extent. With great power comes great responsibility. The key to successful, ethical data-driven personalization is a balance between technology and human touch, between privacy and personalization. We're looking forward to tracking this trend and seeing how the relationship develops over time and technological progress.

This series is part of the research we conducted for the development of our 9-week Digital Marketing course, coming in Summer 2022. Be sure to read all three parts of this Action Brief series: The Growing Significance of AI-Powered Hyper-Personalization in Digital Marketing.

Resources for Further Learning:

- Rethinking Personas for Fairness: Algorithmic Transparency and Accountability in Data-Driven Personas

- [Ethical Concerns of AI in Marketing](#)
- [How To Build an Ethical User Research Practice at Any Organization](#)

Reflection Questions:

- Discuss the "uncanny valley" and its effect on AI personalization.
- Explore the conflict between the customer desire for increasingly personalized experiences versus the limitations and legality of consumer privacy.
- Consider ethics from a rule of law lens: Is there a difference between what is legal and what is ethical? Where do we draw that line? Who draws it?
- Think about algorithmic bias: Is technology ever truly impartial and unbiased? If not, how should we address bias and prejudice in technology?
- Consider the impact of diversity, equity, and inclusion within the context of AI and technology.
- How can businesses create an ethical partnership of humans and artificial intelligence?
- What sort of transparency should exist within the black box of machine learning? How can businesses and technology companies enhance open, honest communication about their research methods and study limitations?

Sources:

- [Ethical Concerns of AI in Marketing](#)
- [AI-Based 'Synthetic Personas' Can Augment and Transform Audience Research](#)
- [Why AI Makes the Human Touch Even More Important in Personalization](#)
- [Overcoming the Pitfalls to Smart and Successful AI Personalization](#)