

Marketing at the Crossroad: Digital Workforce Focused on AI Integration, Leveraging E-Commerce Personalization

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Abstract

Retail and consumer sector is reshaped by the enabled digital workforce including based on marketing capabilities' maximization within the ongoing journey into AI-driven marketing. There is a clear focus on hyper-personalization as an innovative marketing strategy, matching shoppers' evolving needs by improving their shopping experience with the help of enhanced e-commerce personalization. Furthermore, marketing team effort to succeed in dealing with technical complexity of AI integration is becoming more obvious, ensuring human capabilities enhancement. Also, innovative e-commerce business model and retailers are under coming assault from developing AI shopping agents.

Keywords: Digital Marketing, Digital Workforce, AI Integration, DCX, E-Commerce Personalization

JEL Classification: D83; L81; L86; M15; M31; O32; O33

Retail and consumer sector reshaped by enabled digital workforce including based on marketing capabilities' maximization within the ongoing journey into AI-driven marketing

We wrote in our last HMM issue about what to do in order to ensure digital marketing performance improvement (Purcarea a, 2024). We underlined within this context marketers' challenge to ensure marketing capabilities' maximization within the ongoing journey into AI-driven marketing, leveraging digital technology. Recent findings from Fransiska, Lumbanraja and Absah (2024), who analysed digital banking transformation, revealed, for instance, how marketing capabilities were significantly impacted by digital technologies through (directly and

indirectly) employee digital adaptability (such as: AI, Big Data Analytics, Omnichannel Platforms, IoT, and Integrated Learning Systems). Also recently, Costa, Marozzo and Abbate (2024), who focused on how high-tech startups' performance are influenced by the emergence of new perspectives of both technological and marketing capabilities, showed that based on a combination between demand-based logic (via marketing capabilities and functions) and an economic logic (to twist together value co-creation processes' more complex dimensions) high-tech startups' management can individuate these capabilities' influence on competitive advantage.

It is useful to remember that the important tech startup ecosystem is characterized not only by rapid innovation and intense competition, but also by constant change, and includes entities that are essential for converting into scalable solutions nascent technologies (StartUs Insights, 2024). Also, it is well-known that cutting-edge innovations and business models into the market are brought by the global startup ecosystem daily.

On the other hand, a research report by CB Insights (a, 2024) looked at the end of this summer for a small number of emerging tech startups (from thousands of startups) that will have the most impressive business impetus (including in consumer and retail sector), as shown in the below figure. An interesting playbook by McKinsey's experts (Beerthuis et al., 2024) underlined among other aspects that until the interviewed start-ups (being interviewed CEOs and top teams of successful B2B SaaS centaurs) reached advanced scaling phases they didn't have significant brand marketing or world-class marketing function, being imperative to build-up a specialized marketing team with the necessary capabilities including regarding demand generation and digital marketing channels.

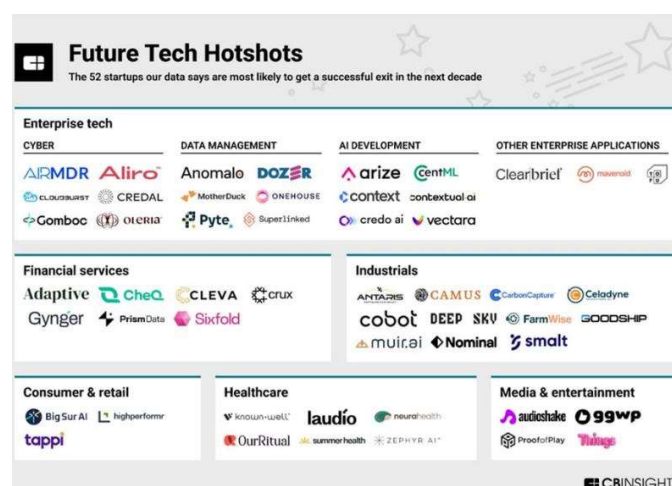


Figure no. 1: Future Tech Hotshots. The 52 startups our data says are most likely to get a successful exit in the next decade

Source: CB Insights a, 2024. Future Tech Hotshots: 52 emerging tech startups that will have big, successful exits, Research Report, August 30, 2024 (work cited)

Retail & consumer

Proliferating ecosystem of vendors targeting e-commerce use cases

Marketing and digital content tools

- Generative AI – marketing copy generation: OpenAI, Econtent, Lately, Webflow, Scalenut, Typeface, Anyword, Jasper, JACQUARD, (PERSADO), Jasper, Contlo, Copy.ai, Writer, Lingua, CopySmith, Contento, Novus, Copy.ai, Narrativa.
- Generative AI – photo and video editing tools: Lightricks, Pixa Labs, Runway, LALALAND, PTTING, CALA.
- Generative AI – synthetic human & fashion design: B2THINK, BOTIKA, BOOLV, CALA, PTTING, StyleScan, ZMO.AI.

Customer service

- Generative AI – customer feedback analytics: Vable, Enterpret, Akkio.
- Generative AI – customer support operations: Glean, ASAPP, Yellow.ai, Ada, Netomi, BALTO, LUMIQ, COGNIV, inbenta, CRESTA, Sapling, Automate, AISA, Stonly, parloa, INTERCOM, talkdesk, Tynelly, eSSENTIALS, AI, Kustomer, Fathom.

E-commerce site optimization

- AI-optimized e-commerce UX: Bloomreach, HumaQublock, Constructor, DATAMILK, nosto, searchspring, AB Tasty, Prodport.
- Generative AI – e-commerce search: Lucidworks, Bloomreach, algolia, Constructor, nosto, Parsipal.
- Composable AI: XGEN, Splice AI.

Product and packaging design

- Generative AI – product design and simulation: nTop, NANA LABS.
- Generative AI – packaging design: Packify, sourceful.

Supply chain

- Supply chain AI copilots: Leverage, Alloy AI, Syrup.

Source: CB Insights research – [The generative AI in e-commerce market map](#) (October 2024)

Source: CB Insights b, 2024. 15 tech trends to watch closely in 2025, Research Report, November 19, 2024, p. 79 (work cited)

Hyper-personalization as an innovative marketing strategy, and matching shoppers' evolving needs by improving their shopping experience with the help of enhanced e-commerce personalization

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CX excellence (exceptional tailored CX delivery) based on investment (not only in technology and data analytics, but also in ethical practices) so as to both meet exceed customer expectations. AI integration is critical to ensure tailored CX experiences, considering the steps involved in adequately implementing hyper-personalization innovative marketing strategy.

There is an increasing focus on tailoring online shopping experiences to all those engaging themselves in buying products for personal use (consequently practicing e-commerce personalization), and improving this way these individual customers' overall satisfaction across all touchpoints (and micro-moments) based on their needs and expectations (Soerensen and Keenan, 2024). Shopify made reference to various scalable ecommerce personalization tactics (such as: customer sign-in incentivization; intelligent product-detail page recommendations' exploitation; data-driven loyalty program running; personalized bestseller lists creation to drive click-throughs; user-generated content across your funnel integration, dynamic content usage, product discovery enhancement, in-session based on behavioral triggers retargeting, ai-driven chatbots with first-party data enhancement, time social retargeting with smart recommendations, three personalized email and SMS types automation, checkout customization). For instance, in order to collect the data for dynamic web content (based not only on user behavior, but also on location or demographic data this type of content changes) Shopify's platform facilitates capturing of behavioral, contextual and historical data, as well as of demographic information. While in order to ensure product discovery enhancement it is offered, for example, an improved personalized discovery experience (after customers log in to a storefront) with the help of a Shopify's Search and Discover app allowing customers to customize products discovery and finding more easily what they're looking.

Research findings by Gahlot, Suryavanshi and Gandhi (2024) revealed how marketers ensure personalized shopping journeys' creation via avatar interactions by leveraging AR, taking into account that AR characteristics have a positive impact on CX, as well as on purchase intentions. According to Weidig, Weippert and Kuehn (2024), as various characteristics of personalized touchpoints (touchpoint nature, customer journey stage, personalization design) are influencing the personalized touchpoints' effect on CX, conscious decisions are required regarding touchpoints' personalization and connection so as to ensure a positive effect.

Research findings from all over the world confirm the impact of AI on e-commerce personalization (Balasubramanian, 2024). Being under the pressure of improving customer engagement businesses are focusing on driving precise personalization by applying AI and joining key trends (like predictive personalization and emotional intelligence), assuming the strategic imperative of AI-powered personalization (Keating, 2024). Twilio Segment's State of Personalization Report 2024 showed, for instance, the role of AI as a game-changer in dynamically engaging customers based on actionable insights, consequently adjusting marketing strategies.

Marketing team effort to succeed in dealing with technical complexity of AI integration, ensuring human capabilities enhancement

Going on the AI-enabled (but still fundamentally human) business future journey it is recommended (Allton a, 2024) to consider the so-called H.U.M.A.N. (Harmonize, Understand, Map, Adapt, Nurture) AI Integration Framework to ensure human capabilities enhancement, this human-centric approach allowing avoidance of various risks (such as misalignment with company culture, resource drain, ethical and legal pitfalls, and employee displacement fears), and obtaining significant benefits like enhanced CX and satisfaction, and accelerated innovation and competitive advantage. There is no doubt about AI transformative impact on marketing strategies, leveraging AI growth engine based on AI integration into a marketing becoming a precise science to ensure measurable results achievement, driving innovation and personalize CX at scale (Alton b, 2024).

As shown by Incisiv (2024), to achieve AI's transformative potential across both marketing operations (from manual tasks to strategic focus) and customer engagement (by driving more personalized customer interactions) marketing leaders need (while acting on the path of avoiding creating technical debt or compliance risks) ensure a cross-functional alignment of marketing (which defines use cases and success metrics), with IT (that validates technical compatibility), with legal (which addresses data privacy protocols), and with finance (that aligns on ROI measurements). The Incisiv's Industry Brief highlighted in conclusion how important is for marketing (while ensuring both brand integrity maintenance, and operational excellence) to consider seriously AI integration across entire CX, knowing that CX delivery, innovation driving, and decision-making enhancement involve AI-driven marketing strategies based on augmented intelligence (developed ML; cognitive augmentation) in marketing, targeting decisions improvement.

Instead of conclusions: *Innovative e-commerce business model and retailers are under coming assault from developing AI shopping agents*

According to Shopify Staff (2024), compared to brick-and-mortar retail, e-commerce business model brings the benefit of reduced start-up costs, having in general other benefits too (access to advanced consumer behavior analytics and large potential customer base). Of course, to attract attention it is critical to choose the right products in the filled e-commerce space, responding to target audience's needs (communicating product's value accordingly), struggling converting to paying customers the potential online shoppers and so on. It is also important to adopt the most effective e-commerce marketing strategies (including on and off website marketing tactics) based on insights obtained by adequately tracking user behavior and sales with the help, for instance, of Shopify Analytics (Keenan a, 2024). Within this framework, it is also essential to have a good e-commerce merchandising strategy in which a significant role is played

by personalization (Keenan b, 2024). As we showed in March this year (Purcarea b, 2024), to strategically approach the rising shoppers' expectations it is something imperative for e-commerce merchandising, considering both shoppers' enablement by the evolving merchandising storytelling, and their conversion based on personalized product merchandising strategies.

On the other hand, it is essential to redefine marketing while advancing on the path to AI integration and innovation (Purcarea c, 2024). Allow us to also remember that in December last year we highlighted not only the importance of e-commerce personalization in customers' online shopping experience, but also of AI impact on marketing transformation (Purcarea, 2023).

As recently highlighted by TechCrunch (Zeff, 2024), the online retail industry could be soon reshaped by advanced AI shopping agents from the racing technology companies like Perplexity (as the first main AI startup offering its paying US customers this advanced quick look) or OpenAI and Google, which are reportedly developing such agents having the potential to find products or deals, respecting customers' time. TechCrunch made an interesting experiment, putting challenging questions to Perplexity's AI shopping agent (also receiving answers from Perplexity spokesperson), and making reference to other AI agents of companies (such as Rabbit and Anthropic) that are training them regarding the ordinary user website interface usage.

Allow us to end by also remembering two quotes: "Communication is at the heart of e-commerce and community" (Meg Whitman); "Online payment will continue to play an ever-growing and significant role in the development of e-commerce as well as the stimulation of consumer demand" (Lucy Peng).

References

- Allton, M., 2024. The H.U.M.A.N. AI Integration Framework: Bridging the Gap Between Technology and People, The Social Media Hat, October 6, 2024. Available at: <<https://www.thesocialmediahat.com/blog/the-h-u-m-a-n-ai-integration-framework-bridging-the-gap-between-technology-and-people/>> [Accessed 14 October 2024].
- Alton, M., 2024. The AI Growth Engine: Accelerating Your Marketing Results, The Social Media Hat, December 7, 2024. Available at: <<https://www.thesocialmediahat.com/blog/the-ai-growth-engine-accelerating-your-marketing-results/>> [Accessed 8 December 2024].
- Balasubramanian, G., 2024. The role of AI in enhancing personalization in ecommerce: A study on customer engagement and satisfaction, Asian And Pacific Economic Review, Volume -17 (2), pp. 160-177. DOI: 10.6084/m9.figshare.26198327.
- Beerthuis, T., Jules, C., Markovitch, S. and Seiler, C., 2024. From start-up to centaur: Leadership lessons on scaling, McKinsey & Company, People & Organizational Performance, April 29, 2024, pp. 1-16. Available at: <<https://www.mckinsey.com/capabilities/people-and-organizational-performance/our-insights/from-start-up-to-centaur-leadership-lessons-on-scaling?>> [Accessed 30 April 2024].

CB Insights a, 2024. Future Tech Hotshots: 52 emerging tech startups that will have big, successful exits, Research Report, August 30, 2024. Available at: <<https://www.cbinsights.com/research/report/future-tech-hotshots/?>> [Accessed 4 September 2024].

CB Insights b, 2024. 15 tech trends to watch closely in 2025, Research Report, November 19, 2024, pp. 76-80. Available at: <https://www.cbinsights.com/reports/CB-Insights_Tech-Trends-2025.pdf?ip_et_ctx=23875269_31_9> [Accessed 20 November 2024].

CB Insights c, 2024. Future of the workforce: How AI agents will transform enterprise workflows, Research Report, July 31, 2024. Available at: <<https://app.cbinsights.com/login?goto=https%3A%2F%2Fapp.cbinsights.com%2Fresearch%2Freport%2Ffuture-workforce-ai-agents%2F>> [Accessed 14 November 2024].

Costa, A., Marozzo, V., Abbate, T., 2024. Exploring new perspectives of technological and marketing capabilities emergence in high-tech startups. Proceedings of the European Marketing Academy, 52nd, (119599), pp. 1-10. Available at: <<https://proceedings.emac-online.org/pdfs/A2024-119599.pdf>> [Accessed 3 December 2024].

Fransiska, R.M., Lumbanraja, P., Absah, Y., 2024. Employee digital adaptability in improving marketing capabilities, Proceeding 4th International Conference on Business & Social Sciences (ICOBUSS), Surabaya, October 26-27th, 2024, 1325-1347. Available at: <https://scholar.google.com/scholar_url?url=https://ojsicobuss.stiesia.ac.id/index.php/icobuss1st/article/download/615/545&hl> [Accessed 2 December 2024].

Gahlot, P., Suryavanshi, P. & Gandhi, A., 2024. Revolutionizing decision-making: How retailers can harness the potential of avatars in augmented reality to enrich the customer experience? Cogent Business & Management, Vol. 11, No. 1, pp. 1-19. <https://doi.org/10.1080/23311975.2024.2432542>.

Glance, 2023. Hyper-personalizing the customer experience in 2024, 2024 CX strategy planning, Oct 13, 2023. Available at: <<https://www.glance.cx/blog/hyper-personalizing-the-customer-experience-in-2024>> [Accessed 6 December 2023].

Incisiv, 2024. From Content to Experience: How AI Is Shaping the Future of Marketing, Incisiv's Industry Brief in Partnership with Avanade, Microsoft, and Sitecore, pp. 1-13. Available at: <<https://delivery-sitecore.sitecorecontenthub.cloud/api/public/content/450023cd283f4b16a045ceb782837688?>> [28 November 2024].

Keating, G., 2024. Announcing The State of Personalization 2024, Twilio Segment, June 18, 2024. Available at: <<https://segment.com/blog/state-of-personalization-2024/?>> [Accessed 19 September 2024].

Keenan, M., 2024. 26 Need-to-Know Ecommerce Marketing Tactics for 2024, Shopify, 16 Sept 2024. Available at: <<https://www.shopify.com/au/blog/ecommerce-marketing>> [Accessed 9 December 2024].

Keenan, M., 2024. The 4 Key Components of Ecommerce Merchandising (2024), Shopify, 15 Jan 2024. Available at: <<https://www.shopify.com/au/blog/ecommerce-merchandising>> [Accessed 9 December 2024].

Purcarea, I. M., 2024. Ensuring digital marketing performance improvement, making difference between today's and tomorrow's marketing function, Holistic Marketing Management, vol. 14(3), pp. 11-17, August.

Purcarea, I. M., 2024. Challenges for Modern Marketing and E-Commerce Merchandising, Holistic Marketing Management, vol. 14(1), pp. 17-23, March.

Purcarea, I. M., 2024. Redefining Marketing While Advancing on the Path to AI Innovation, Better Assessing AI Model Performance, *Holistic Marketing Management*, vol. 14(2), pp. 21-28, June.

Purcarea, I. M., 2023. E-Commerce Personalization and Digital Merchandising Strategy, *Holistic Marketing Management*, vol. 13(4), pp. 14-22, December.

Shopify Staff, 2024. 13 Ecommerce Challenges and How To Overcome Them, Shopify, 17 Jan 2024. Available at: <<https://www.shopify.com/au/blog/ecommerce-challenges>> [Accessed 9 December 2024].

Soerensen, J., Keenan, M., 2024. Ecommerce Personalization: Tactics and Examples (2025), Shopify, Nov 30, 2024. Available at: <<https://www.shopify.com/enterprise/blog/ecommerce-personalization-examples>> [Accessed 6 December 2024].

StartUs Insights, 2024. 30+ Top Tech Startups & Companies in 2025: Shaping the Future, The #1 Source for Innovation Data, August 2024. Available at: <<https://www.startus-insights.com/innovators-guide/top-tech-startups/?>> [Accessed 28 August 2024].

Weidig, J., Weippert, M., Kuehn, C., 2024. Personalized touchpoints and customer experience: A conceptual synthesis, *Journal of Business Research*, 177, pp. 1-13. <https://doi.org/10.1016/j.jbusres.2024.114641>.

Zeff, M., 2024. The race is on to make AI agents do your online shopping for you, TechCrunch, December 2, 2024. Available at: <<https://techcrunch.com/2024/12/02/the-race-is-on-to-make-ai-agents-do-your-online-shopping-for-you/?>> [Accessed 4 December 2024].

