

E-Commerce, Marketing Technology Stake, and Improved DCX

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Abstract

Now it's the real time to unify users' profile data across all systems in order to ensure the best DCX. There is no doubt about today's massive shift from the use of third-party data to first-party data, in order to improve personalization with the help of the consent-based data collection, and make the difference between sales and marketing in e-commerce smaller. It is more and more obvious marketers' interest for technology trends including the generative AI changing how marketing works, and scaling marketing for additional growth, expressing the essential features of the value it offers. We are witnessing the expansion of the marketing technology stake and of marketers' efforts to make the difference thanks to the digital orchestration of the ecosystem, ensuring the big picture. Within the context of the acceleration of e-commerce growth, of the technological innovation, it is important to consider the relation between shaping the future of marketing technology and the digitally driven commerce, putting the customer first. To change e-commerce by a process of evolution companies need to consider key trends, identify and implement strategic priorities, so as to become absolutely necessary to customers.

Keywords: E-commerce, DCX, First-party data, Marketing technology stake, NeXT Commerce

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

Unifying users' profile data across all systems in order to ensure the best DCX. The today's massive shift from the use of third-party data to first-party data, improving personalization with the help of the consent-based data collection, and making the difference between sales and marketing in e-commerce smaller

It is now very important under the current difficult conditions to go beyond the general understanding of an e-commerce business, so as to offer customers the most pertinent customer experience (CX), by designing, building, maintaining and improving the omnichannel presence accordingly. This also presupposes to assemble the dispersed customer data available across

often siloed systems like websites, in-store point of sale systems, email marketing tools, call center software, commerce platforms etc. (Buytaert, 2023). According to the reputed Open-Source advocate and technology executive Dries Buytaert (Founder and Project Lead of Drupal, widely used Open Source project; Cofounder and CTO of Acquia, a pioneer in promoting Open Source software and cloud technology):

- It is necessary to unify users' profile data across all systems in order to ensure the best digital CX (DCX), this kind of both personalized, and orchestrated DCX being delivered (on the basis of reusable content and digital assets) not only fast and in a stable manner, but also consistently good in performance. Acquia's Open Digital Experience Platform (see figure below) is seen as being helpful for those businesses trying to be digital winners;
- The Artificial Intelligence (AI) tools (such as ChatGPT, for text creation, and DALL·E 2, for image creation) represent the no. 1 trend to watch, the generative AI (generating novel content) transforming the way of working, researching etc.



Figure no. 1: Acquia's Open Digital Experience Platform

Source: Buytaert, D., 2023. Acquia retrospective 2022, Dries Buytaert: On digital experiences, Open Source, Open Web, January 10, 2023 (Work cited)

Let's remember that Buytaert proposed a solution in the form of Composable Digital Experience Platforms (DXPs) described in his (in October last year launched) Composable Digital Experience Manifesto (Buytaert, D., 2022) outlining the essential principles for a DXP to be considered composable, based on this Composable DXPs organizations being able to adapt to shifting business needs by rapidly assembling solutions from pre-existing building blocks (see figure below), often using low-code / no-code tooling (interfaces) to speed up experience building. In the above-mentioned manifesto Buytaert explained how the ideas of the Composable Enterprise (as defined by Gartner) was applied by him to the DXP market.

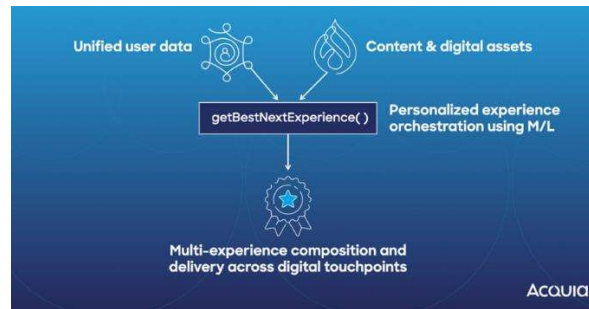


Figure no. 2: Four fundamental blocks to creating and delivering exceptional DCX

Source: Buytaert, D., 2023. Acquia retrospective 2022, Dries Buytaert: On digital experiences, Open Source, Open Web, January 10, 2023 (Work cited)

Speaking about customer data coming from various sources (see figure below), it is useful to remember that Twilio Segment (2023) highlighted that:

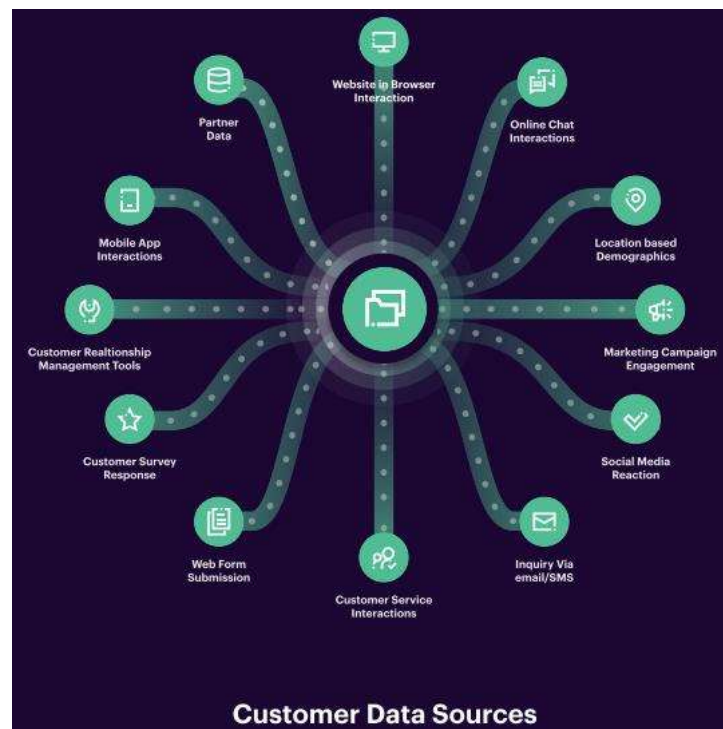


Figure no. 3: Customer Data Sources

Source: Twilio Segment, 2023. The Fundamentals of First-Party Data, p. 4 (Work cited)

- The today's massive shift from the use of third-party data (as customer data source for marketing and advertising, data aggregators collecting end-user data through cookies and browser behavior; considered for a period of twenty years as the backbone of e-commerce and online advertising), which erodes customer trust, to first-party data (provided directly by end users, and considered more accurate and relevant), which can be used to personalize CX, consent-based data collection being key;



Figure no. 4: The Competitive Edge of First-Party Data

Source: Twilio Segment, 2023. *The Fundamentals of First-Party Data*, p. 13 (Work cited)

- These first-party data are collected through different methods (like questionnaires and surveys, membership and loyalty programs with benefits for providing data, content marketing engagement, social media interactions, customer service and support interactions, mobile app use), customers knowing how the trusted companies (see the figure above) are using the right information collected; Customer Data Platform (CDP) is considered the main tool for streamlining both the collection, and management (see in figure below how a customer data platform works) of these first-party data.

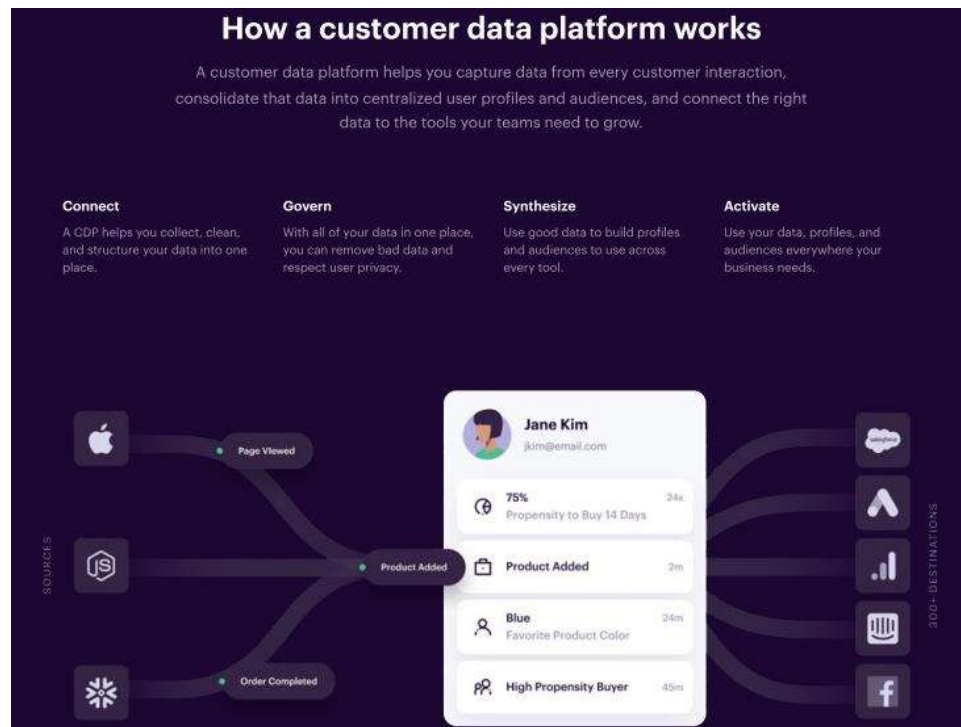


Figure no. 5: How a Customer Data Platform works

Source: Twilio Segment, 2023. *The Fundamentals of First-Party Data*, p. 15 (Work cited)

It is also interesting to note that a Pacvue's newsletter from January 2023 launched the invitation with regard to a discussion (on February 16th 2023) on how to make the difference between sales and marketing in e-commerce smaller, so as to drive market share and revenue growth, taking into account the current conditions (characterized by both increased economic uncertainty, and limited consumer spending). Within this framework it was underlined the need of a business model based on unified data, breaking down data silos, and even valorizing first mover advantage based on these unified data.

Marketers' interest for technology trends including the generative AI changing how marketing works, and scaling marketing for additional growth, expressing the essential features of the value it offers. The expansion of the marketing technology stake and making the difference thanks to the digital orchestration of the ecosystem, ensuring the big picture

Coming back to the generative AI it is worth mentioning that as shown by CB Insights (Sanwal, 2023): it would be as big as the iPhone (according to a recent poll, as shown in the first figure below); with regard to the focus areas for its investment, the next figure below shows a significant distribution of the funding in the last two years, both in text generation, and visual media generation. While regarding the consumer application ChatGPT (from OpenAI), Reuters recently revealed that a UBS study presented an estimation for this January of 100 million monthly active users of ChatGPT (two months after its launch, in November 2021), meaning a true world record (Hu, 2023).

Poll: Generative AI is a technological advance that will be as big as...

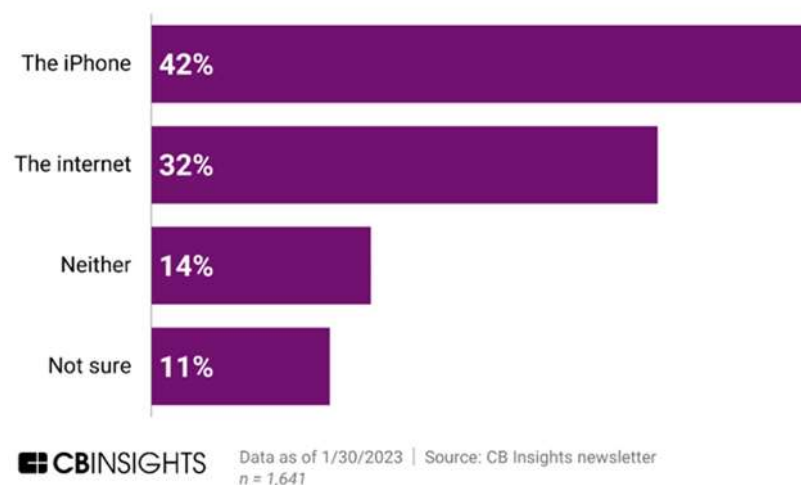


Figure no. 6: Poll: Generative AI is a technological advance that will be as big as...

Source: Sanwal, A., 2023. AI gold rush, CB Insights, AI goggles, CB Information Services, February 1, 2023 (Work cited)



Where is all the money going in generative AI?

Distribution of generative AI funding, 2021 – 2022

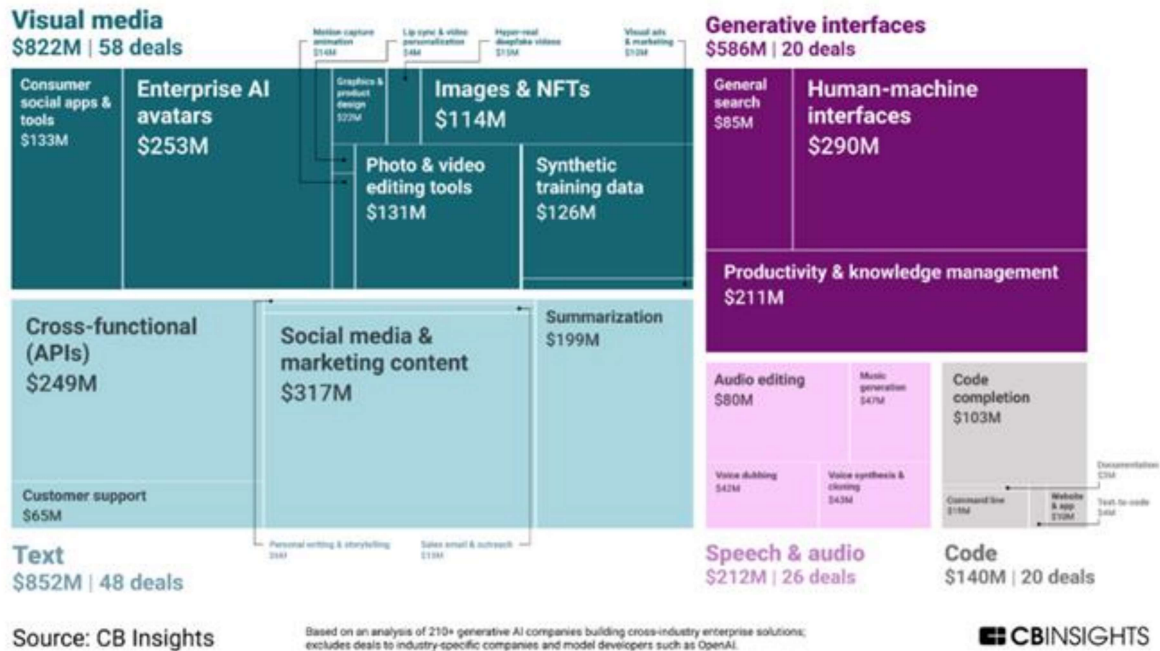


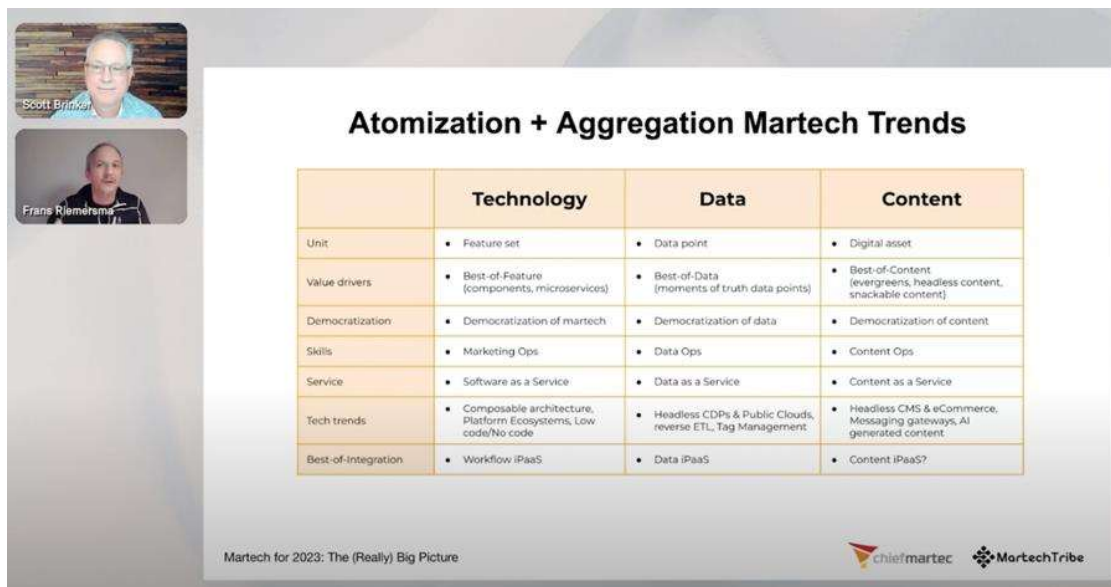
Figure no. 7: Where is all the money going in generative AI?

Source: Sanwal, A., 2023. *AI gold rush*, CB Insights, AI goggles, CB Information Services, February 1, 2023 (Work cited)

On the occasion of a recent webinar the analyst Yory Wurmser (Schilling, B., 2023) underlined: people's real interest in how and what the new technologies can do for them, including among marketers' interest for technology trends the generative AI that will transform creative (together with: connected devices making it easier for consumers to purchase, more interoperable clean rooms, loyalty to benefits programs provided by web3, and gaming as the training ground for marketers based on metaverse); how it was recorded a lot of informal talk about AI (from Dall-E to ChatGPT) and its impact on marketing.

In December last year, the reputed Scott Brinker (a, 2022) and Frans Riemersma analyzed the marketing technology landscape, highlighted the expected major trends for 2023 (generative AI & personalization, activating cloud data warehouses, ecosystems & communities, no-code in-house creators, web3 & metaverse), and in order to do the right thing about the challenging landscape (characterized by atomization and aggregation of marketing technology trends) they recommended to take into account a special framework harmonizing technology, data and content (as shown in the first figure below), and allowing including to scale marketing for additional growth, expressing the essential features of the value it offers. Within this context they briefly talked about the impact of generative AI on marketing and marketing technology, as

shown in the next figure below, explaining how will generative AI change how marketing works (Brinker, 2023).



Atomization + Aggregation Martech Trends

	Technology	Data	Content
Unit	• Feature set	• Data point	• Digital asset
Value drivers	• Best-of-Feature (components, microservices)	• Best-of-Data (moments of truth data points)	• Best-of-Content (evergreens, headless content, snackable content)
Democratization	• Democratization of martech	• Democratization of data	• Democratization of content
Skills	• Marketing Ops	• Data Ops	• Content Ops
Service	• Software as a Service	• Data as a Service	• Content as a Service
Tech trends	• Composable architecture, Platform Ecosystems, Low code/No code	• Headless CDPs & Public Clouds, reverse ETL, Tag Management	• Headless CMS & eCommerce, Messaging gateways, AI generated content
Best-of-Integration	• Workflow iPaaS	• Data iPaaS	• Content iPaaS?

Martech for 2023: The (Really) Big Picture.  

Figure no. 8: Atomization + Aggregation Martech Trends

Source: Brinker, S., 2022. A whirlwind tour of the new martech map, major martech trends for 2023, and how to manage it all in the year ahead, Chief Martec, December 2022 (Work cited)



How will generative AI change how marketing works?



Generative AI refers to artificial intelligence systems that can generate new content, such as text, images, or videos. In the field of marketing, generative AI could potentially be used to create new advertisements, social media posts, or other types of marketing content. This could save marketers time and effort, as they would not have to create this content manually. Additionally, generative AI systems can be trained to produce content that is tailored to specific audiences or intended to achieve specific marketing goals. This could make marketing more effective and efficient.

Figure no. 9: How will generative AI change how marketing works?

Source: Brinker, S., 2023. 2023 will be a chaotic year for martech, yet the start of a massive wave of growth, Chief Martec, January 2023 (Work cited)

It is important to note the interesting prediction made by Brinker within the above-mentioned January 2023 context with regard to the expansion of the marketing technology industry (needing imperatively a reorientation to profitability based on a significant differentiation) and profession on the basis of the current start of a massive wave of growth in marketing technology (see the first figure below). In his opinion, in facing the descendent business cycle it is imperative to adapt to the technology landscape enduring the identified

multiple seismic shifts, such as: the plateauing of the major technology S-curves (SaaS, social media, and mobile) representing the way things are now; the beginning of the new major technology S-curves (AI, AR/VR, Composability, and Web3). Of course, without neglecting what the same reputed expert (Brinker b, 2022) underlined in November last year concerning the fact that in approaching the technology stake expansion the marketing's “system test” is orchestration (orchestration > integration > consolidation) of the system as a whole, so as to make the difference (see the next figure below).

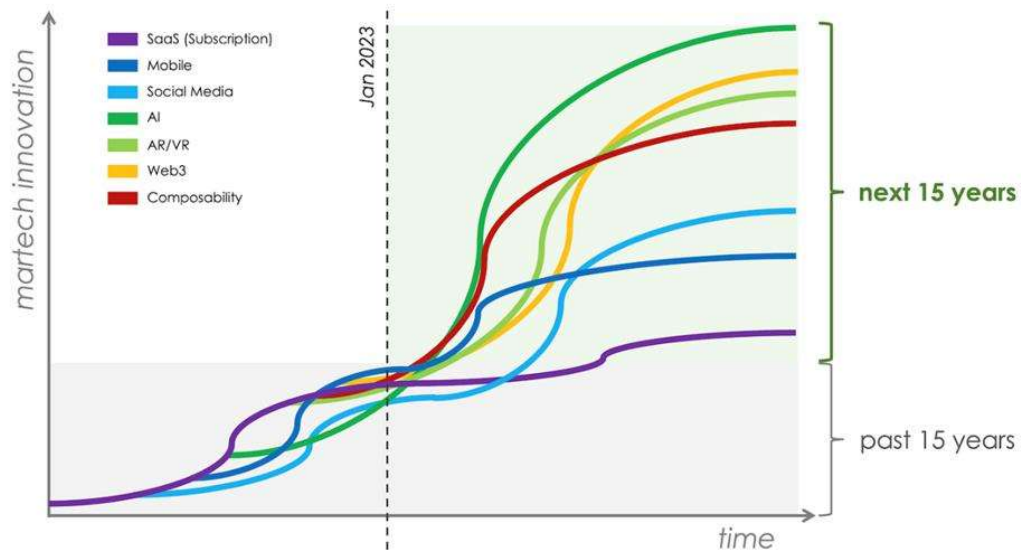


Figure no. 10: The next 7 years of expansion in the martech industry and profession will dwarf the past 7 years

Source: Brinker, S., 2023. 2023 will be a chaotic year for martech, yet the start of a massive wave of growth, Chief Martec, January 2023 (Work cited)

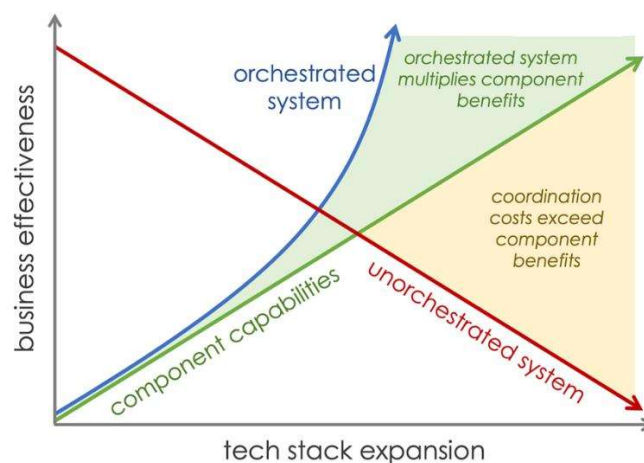


Figure no. 11: Tech stack expansion

Source: Brinker, S., 2022. Tech stacks are still large, but orchestration can make all the difference, Chief Martec, November 2022 (Work cited)

Acceleration of e-commerce growth, technological innovation, and the relation between shaping the future of marketing technology and the digitally driven commerce, putting the customer first

Coming back to the always challenging harmony between sales and marketing, it is useful to remember how last year the prestigious BCG (2022) brought to our attention significant aspects, such as: the acceleration of e-commerce growth, the shifting role of traditional sales channels (toward convenience, entertainment, immersion, and personal touch), the exponential change fueled by the technological innovation (AI, AR/VR, the metaverse, NFTs, crypto – see figure below). And among the implications for leaders of the new trends they included the need of combining the proper capabilities with regard to: sales, marketing, customer service, so as to enable the change (both personalizing customer journeys, and reinvent sales channels), enabling integration; data and technology across sales, marketing, and customer service teams, so as to ensure a single customer view.



Figure no. 12: Tech stack expansion

Source: BCG, 2022. *The Future of Sales and Marketing Is Here*. [pdf] Boston Consulting Group (BCG) analysis and case experience, February 2022, p. 8 (Work cited)

As shown by Nathan (2022), the future of marketing technology is shaped not only by skills shortages and cross-functional challenges (like considering: the divergence between marketing technology and advertising technology; the need of establishing a clear digital vision by both CMOs and CIOs, delivering the best possible CX), but also by the upcoming cookie less world (involving the implementation of the right marketing technology stack necessary to

support the first-party data strategy, so as to deliver personalized CX based on the right action in real-time on customer data). In our last HMM issue (Purcarea, 2022), in which we approached e-commerce development, we made reference to significant aspects, such as: how the functionality of an e-commerce solution is determined by the technology stack (SCAND a, 2022), while data activation is also depending on the right technology stack (Den Boer, 2022); key differences (Litcommerce, 2022) between selling on online marketplaces (like Amazon, eBay, Etsy, Walmart) and e-commerce platforms (like Shopify, BigCommerce, Magento, WooCommerce etc.); a recent evaluation, made by an e-commerce and marketing expert (Smith, 2022), of the best e-commerce platforms of 2023 (Shift4Shop, Square, BigCommerce, Wix, Shopify, Squarespace, GoDaddy, WP Engine, Zyro, Bluehost etc.); how the strategic priorities of Shopify, considered an e-commerce infrastructure leader (CB Insights a, 2022), are also including marketing and personalization tools, new sales channels and shipping and fulfillment enablement; how the strategic priorities of the online marketplace (from site) eBay are including authentication services, category specialist marketplaces, payment and financing, and also shipment and fulfillment enablement (CB Insights b, 2022); the importance of ensuring a frictionless shopping (Pivotree, 2022; McKenzie, 2018; Medium, 2016), and of creating individually tailored services based on detailed analysis of customer behavior (SCAND b, 2022); the decisive role of digitally driven commerce and of meeting customers' ever-rising expectations by orchestrating experiences, putting the customer first, and profitability being placed as a core capability, all of these being seen by McKinsey's E-commerce Global Initiative as the next horizon of value NeXT commerce (Arora et al., 2022); the fine linkage between a customer-first mindset and the purpose-driven thinking (Walters, 2022).

Instead of conclusions: To change e-commerce by a process of evolution companies need to consider key trends, identify and implement strategic priorities, so as to become absolutely necessary to customers

CB Insights (2023) recently analyzed Amazon's strategic priorities in retail, identifying (based on data mining from acquisitions, investments, and partnerships) four important priorities: metaverse and Web3 shopping; omnichannel enablement; online grocery; supply chain, fulfillment, & logistics; zero-emission delivery. Within this framework, it was shown that the e-commerce giant strengthened its commitment to this course of action in digital retail and supply chain following its net sales, in the third quarter of 2022, made up by its physical stores (just 3.7%).

Let's recall that we have learned from the above-mentioned Arora et al. (pp. 3-4) that to change e-commerce by a process of evolution companies need to consider key trends (such as: accelerating e-commerce, fast-changing customer behaviors, very high customer expectations, less indulgent of capital market expectations, massive advances in technology and data, competitive pressures), becoming absolutely necessary to customers, understanding that the

future of business is represented by the digitally driven commerce, and making on this basis a choice decision toward the NeXT commerce.

References

- Arora, A., Longo, R., Plotkin, C.L., Sivaeva, T. and Wang, K.W., 2022. Becoming indispensable: Moving past e-commerce to NeXT commerce. [pdf] McKinsey's E-commerce Global Initiative, NeXT Commerce, November 2022, pp. 1-7, 10. Available at <becoming-indispensable-moving-past-e-commerce-to-next-commerce> [Accessed 18 November 2022].
- BCG, 2022. The Future of Sales and Marketing Is Here. [pdf] Boston Consulting Group (BCG) analysis and case experience, February 2022, pp. 3, 8, 12, 19. Available at: <BCG-Executive-Perspectives-2022-Future-of-Marketing-and-Sales> [4 February 2023].
- Brinker, S., 2022. A whirlwind tour of the new martech map, major martech trends for 2023, and how to manage it all in the year ahead, Chief Martec, December 2022. [online] Available at: <<https://chiefmartec.com/2022/12/a-whirlwind-tour-of-the-new-martech-map-major-martech-trends-for-2023-and-how-to-manage-it-all-in-the-year-ahead/>> [Accessed 4 February 2023].
- Brinker, S., 2023. 2023 will be a chaotic year for martech, yet the start of a massive wave of growth, Chief Martec, January 2023. [online] Available at: <<https://chiefmartec.com/2023/01/2023-will-be-a-chaotic-year-for-martech-yet-the-start-of-a-massive-wave-of-growth/>> [Accessed 4 February 2023].
- Brinker, S., 2022. Tech stacks are still large, but orchestration can make all the difference, Chief Martec, November 2022. [online] Available at: <<https://chiefmartec.com/2022/11/tech-stacks-are-still-large-but-orchestration-can-make-all-the-difference/>> [Accessed 4 February 2023].
- Buytaert, D., 2023. Acquia retrospective 2022, Dries Buytaert: On digital experiences, Open Source, Open Web, January 10, 2023. [online] Available at: <<https://dri.es/acquia-retrospective-2022?>> [Accessed 26 January 2023].
- Buytaert, D., 2022. A Composable Digital Experience Manifesto, October 6, 2022. Available at: <<https://dri.es/a-composable-digital-experience-manifesto>> [Accessed 29 January 2023].
- CB Insights a, 2022. Analyzing Shopify's growth strategy: How the e-commerce platform is expanding its merchants' reach and speeding up delivery, Research, November 10, 2022. [online] Available at: <<https://www.cbinsights.com/research/shopify-strategy-map-investments-partnerships-acquisitions/?>> [Accessed 20 November 2022].
- CB Insights b, 2022. Analyzing eBay's growth strategy: How the company is prioritizing category specialization & luxury authentication, Research, December 6, 2022. [online] Available at: <<https://www.cbinsights.com/research/ebay-strategy-map-acquisitions-partnerships/?>> [Accessed 15 December 2022].
- CB Insights, 2023. Amazon's bet on physical stores hasn't paid off. What's the tech giant's next move in retail? Research, January 30, 2023. [online] Available at: <<https://www.cbinsights.com/research/amazon-retail-strategy-map-investments-partnerships-acquisitions/?>> [Accessed 5 February 2023].
- Den Boer, S., 2022. How Grocery Businesses Can Grow Revenue Through E-Commerce Personalization, Bloomreach, Aug 01, 2022. [online] Available at: <<https://www.bloomreach.com/en/blog/2022/how-grocery-businesses-can-grow-revenue-through-e-commerce-personalization?>> [Accessed 31 October 2022].
- Hu, C., 2023. ChatGPT sets record for fastest-growing user base - analyst note, Reuters, Reporting by Krystal Hu in Toronto; Editing by Cynthia Osterman and Bradley Perrett, February

2, 2023. [online] Available at: <<https://www.reuters.com/technology/chatgpt-sets-record-fastest-growing-user-base-analyst-note-2023-02-01/?>> [Accessed 3 February 2022].

Litcommerce, 2022. Marketplace vs eCommerce Platform [2022] – Which One is Better? Oct 2022. [online] Available at: <<https://litcommerce.com/blog/ecommerce-vs-online-marketplace/>> [Accessed 4 November 2022].

McKenzie, S., 2018. Frictionless shopping 2.0: How its definition has evolved and what it means for brands, Retail Customer Experience, Dec. 27, 2018. [online] Available at: <<https://www.retailcustomerexperience.com/blogs/frictionless-shopping-20-how-its-definition-has-evolved-and-what-it-means-for-brands-2/>> [Accessed 15 December 2022].

Medium, 2016. Frictionless Commerce, Commerce Factor, May 23, 2016. [online] Available at: <<https://medium.com/commerce-factor/frictionless-commerce->> [Accessed 15 December 2022].

Nathan, E., 2022. Trends Shaping Martech Strategy in 2023, CMSWire, December 15, 2022. [online] Available at: <<https://www.cmswire.com/digital-marketing/trends-shaping-martech-strategy-in-2023/>> [Accessed 4 February 2023].

Pacvue, 2023. Thought Box: Bridging the Gap Between Sales & Marketing in eCommerce, 2023 Retail Media Performance Report, and more! Newsletter, Pacvue <marketing@pacvue.com> January 3, 2023.

Pivotree a, 2022. Commerce. Frictionless. [online] Available at: <<https://www.pivotree.com/frictionless-commerce/>> [Accessed 28 September 2022].

Purcarea, I.M., 2022. E-Commerce Development and Entering the Path to NeXT Commerce, Holistic Marketing Management, vol. 12(4), pp. 40-53, December.

Sanwal, A., 2023. AI gold rush, CB Insights, AI goggles, CB Information Services, February 1, 2023 (e-mail received on February 2, 2023, 01:33).

SCAND a, 2022. What Technology Stack is Used for E-Commerce Projects? August 11, 2022. [online] Available at: <<https://scand.com/company/blog/what-technology-stack-is-used-for-e-commerce-projects/>> [Accessed 12 December 2022].

SCAND b, 2022. What Is the Internet of Behavior and Why Is It the Future? November 24, 2022. [online] Available at: <<https://scand.com/company/blog/internet-of-behaviors/>> [Accessed 12 December 2022].

Schilling, B., 2023. 5 tech trends for marketers to watch in 2023, Insider Intelligence, Jan 31, 2023. Available at: <<https://www.insiderintelligence.com/content/5-tech-trends-marketers-watch-2023?>> [Accessed 1 February 2023].

Smith, A.N., 2022. The Best E-Commerce Platforms of 2023, Digital.com, Updated November 17, 2022. [online] Available at: <<https://digital.com/best-ecommerce-platforms/>> [Accessed 13 December 2022].

Twilio Segment, 2023. The Fundamentals of First-Party Data, pp.1-19. Available at: <TS-Content-Ebook-TheFundamentalsFirst-PartyData> [Accessed 29 December 2022].

Walters, J., 2022. What customer first really means, Zendesk, Published December 6, 2021, Last updated March 13, 2022. [online] Available at: <<https://www.zendesk.com/blog/customer-first/>> [Accessed 16 December 2022].]