

Beyond the Buzz: A Systematic Review and Conceptualization of Hyper-Personalization

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Abstract

This systematic review synthesizes fragmented academic discourse on hyper-personalization to clarify the concept's ambiguous use. It aims to assess whether it is more than a buzzword and develop an interdisciplinary conceptualization. Following Scientific procedures and rationales for systematic literature reviews (SPAR-4-SLR), this study pre-screened for alternative terminology and analyzed 101 peer-reviewed articles. First, four objects—digital content, experiences, services, products—and multiple contexts of personalization structure the mapping of hyper-personalization usage. Second, analysis develops three thematic elements: Technology Enablement as operational foundation, Individual Centricity as foundational resource, Relational Human–Technology Interaction as value-creation process. Finally, a synthesis and integration of comparative content posit hyper-personalization as distinctive concept.

Keywords (max. 3): Hyper-Personalization, Relational Human–Technology Interaction, Systematic Literature Review

Track: Marketing Strategy & Theory

1 Introduction

Personalized experiences are increasingly driven by advanced technologies like artificial intelligence that allow one-on-one marketing (Huang & Rust, 2017). In this context, hyper-personalization has become a buzzword in marketing practice (Tank, 2025). Relating academic discourse is also emerging across domains such as marketing (Gao & Liu, 2023; Riegger et al., 2022), information systems (Abuein et al., 2024; Ozay et al., 2025), healthcare (Kooiman et al., 2023; Korhonen et al., 2020), and education (Cohen et al., 2021; Dishon, 2025). Despite growing interest, research on hyper-personalization remains fragmented, with inconsistent terminology and conceptual use (Reviglio & Agosti, 2020). This study addresses this ambiguity by systematically reviewing academic literature (Paul et al., 2021) and thematically analyzing its conceptual descriptions (Braun & Clarke, 2006). It aims to clarify how hyper-personalization has been used in research and develops a coherent, domain-transcending conceptualization. This study seeks to address 1) which key themes constitute the concept of hyper-personalization and 2) whether hyper-personalization is a distinct form of personalization – or just another buzzword.

2 Methodological Approach

To investigate the use of ‘hyper-personalization’ and synthesize existing perspectives, a domain-based systematic review (Paul & Criado, 2020) was conducted (Hulland & Houston, 2020). To ensure methodological rigor, this review followed Paul et al.'s (2021) SPAR-4-SLR protocol, documented in Figure 1.

Assembling	Identification Domain: Hyper-Personalization Research questions: Which key themes constitute the concept of hyper-personalization? How does hyper-personalization conceptually differ from personalization? Source type: English Journal Articles Source quality: WOS or Scopus indexed	Acquisition Search mechanism and material acquisition: WOS and Scopus Database Search period: until 07.2025 Search keywords: hyper-personalization, hyperpersonalization, hyper personalization, data-driven personalization, personalization based on big data, AI-powered personalization, AI-mediated personalization, AI-enabled personalization, AI-based personalization, personalization powered by artificial intelligence, dynamic personalization, personalization through GenAI, technology enabled personalization, machine learning-based personalization, ML-based personalization, hyper-relevant approach, hyper-customization with Boolean operators (OR between keywords, NEAR/1 or W/1 for phrases with multiple words) Articles returned from the search: n = 331 (WOS n = 151, Scopus n = 180)
	Organization Organizing codes: definition, indication of conceptual understanding, comparison to “traditional” personalization, object and context of personalization Purification Article type excluded: Duplicates n = 120, Language n = 4, Non-journal article n = 26, Unavailable = 8, No conceptual content = 66, Different construct = 6 Article type included: Articles containing definitions or conceptual descriptions of hyper-personalization (or terms used synonymously, as defined in keyword assessment) n = 101	Evaluation Analysis method: thematic Agenda proposal method: conceptualization and assessment of conceptual distinctiveness Reporting Reporting conventions: discussions (words) and summaries (tables, graphs) Limitations: only English papers included, work-in-progress not yet considering outcomes of hyper-personalization conceptually, interdisciplinary stance draws on marketing-background Sources of support: input and feedback from colleagues in the author’s department throughout the research process

Figure 1: SPAR-4-SLR protocol

To increase the literature’s comprehensiveness, a pre-screening verified that studies examining the same underlying concept were not overlooked in the search strategy due to

divergent terminology. The Web of Science and Scopus databases were searched for articles containing the keyword ‘hyper-personalization’. The resulting documents were then screened for terminology used synonymously. The search strategy employed the 17 resulting phrases in combination with Boolean operators (OR between keywords, NEAR/1 or W/1 for phrases with multiple words). Out of the initial 331 results duplicates, non-English, unavailable and non-journal articles were excluded. The remaining 173 documents were screened for definitions or other conceptual descriptions related to one of the search terms. The data was organized into definitions, indications of conceptual understanding, and explicit comparisons to “traditional” personalization on a content-related level, and into categories reflecting the object and context of personalization on a descriptive level. Six articles were excluded that assessed a concept not aligned with the marketing-based understanding of personalization. These alternative uses of 'hyper-personalization' referred to hyper-awareness experiences and a heightened focus of politics on individual people and their characteristics. After purification, 101 documents remained. The evaluation comprised a theoretical thematic analysis following Braun & Clarke (2006). This type of thematic analysis was chosen due to the strong theoretical interest, i.e. the systematic examination of the definitions and conceptual descriptions of ‘hyper-personalization’. Accordingly, the analysis followed a semantic approach and limited to the conceptual sections of the articles, ensuring that the focus remains on definitions and descriptions rather than empirical findings or broader discussions.

The screening process shed light on diverging objects and contexts of hyper-personalization. Therefore, an initial descriptive organization focused on ‘what’ is personalized in the conceptual content. The literature was mapped (Paul et al., 2021) building on these categories. Next, a systematic process of thematic coding in MaxQDA identified recurring themes (Braun & Clarke, 2006). The final step of analysis distilled commonalities across patterns and synthesized explicit comparisons to traditional personalization along the identified thematic elements. This process integrated the findings of the semantic-level analysis with deeper interpretation to develop and structure the conceptual elements. This allowed the author to synthesize the understandings of ‘hyper-personalization’ into an interdisciplinary conceptualization. Finally, the conceptualization was related to the points of differentiation to assess whether hyper-personalization is more than a buzzword.

3 Sample Overview & Conceptual Mapping

Conceptual engagement with hyper-personalization begins in 2007 but remains sporadic until gradual gains in the late 2010s. Activity accelerates after 2020 and peaks in the past two years, signaling its emergence as a prominent research topic.

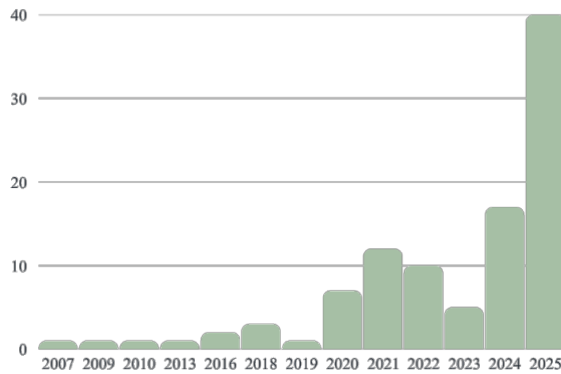


Figure 2: Emergence of conceptual academic engagement with hyper-personalization

The “field reconnaissance” for the mapping process reveals cross-disciplinary engagement with hyper-personalization. The range of disciplines entails various understandings of hyper-personalization, often shaped by the foci of each field. While business and information systems are the most prevalent, the disciplines span multiple fields, including education, engineering, communication, and health care. Common practice areas include marketing, retail, education, or mental health care. Moreover, some contexts like human resource management or medicine form niche fields that indicate emerging discussions in the literature. Many papers combine insights from multiple fields. For instance, approaches integrate information systems with business (Wu & Ma, 2025), education (Ramesh et al., 2025), or health (Stern et al., 2025). This interdisciplinary application highlights the need for a conceptualization applicable across domains. Accordingly, the following mapping builds on shared themes rather than discipline-based perspectives.

After the pre-screening revealed inconsistent terminology, the mapping further consolidated the ambiguous use hyper-personalization. To map the literature, the different perspectives were integrated into four overarching conceptual categories reflecting their objects of personalization: digital content, experiences, services, and products. Within the scope of each category contexts of personalization are specified. Still, each conceptual category extends beyond the "sum" of its specified contexts, as some papers remain at the object level. For example, while Rosenbaum et al. (2021) specifically discuss the personalization of cosmetics, Khan et al. (2023) refers more generally to products. Figures 2 and 3 proportionally map the occurrence of objects and contexts, respectively. The intersections only indicate joint discussion and do not proportionally reflect occurrence.

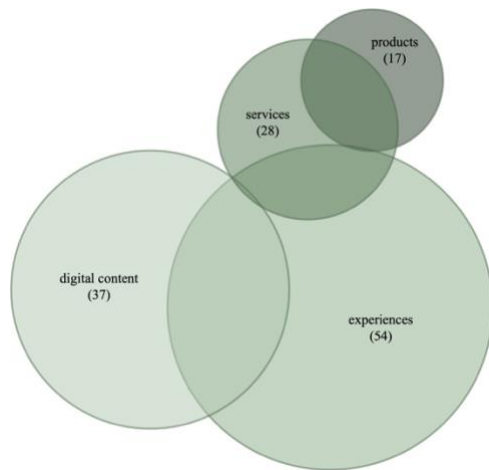


Figure 3: Objects of hyper-personalization

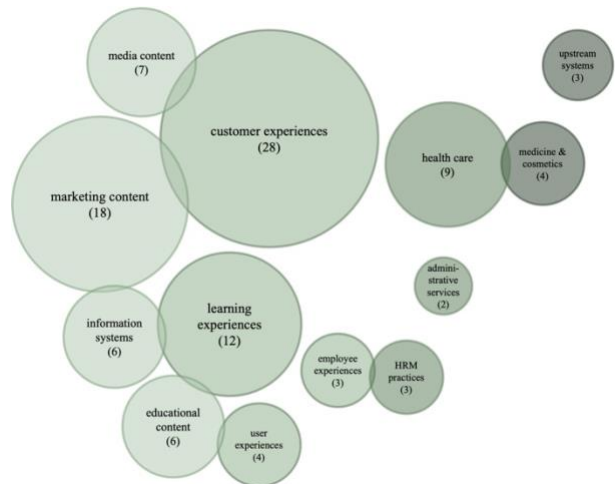


Figure 4: Contexts of hyper-personalization application

4 Thematic Elements

The thematic analysis identified three key themes emerging from the literature's conceptual sections: Technology Enablement, Individual Centricity, and Relational Human-Technology Interaction. The first two thematic elements represent the systemic foundation of hyper-personalization while the latter posits its value-creation process. The structured pathway from codes, including the number of papers referring to it, to themes is outlined in Table 1. The list of included papers and relating source numbers is available on request.

Codes (Source Counts) Source Number	Sub-Themes	Themes
Artificial Intelligence (91) 1-5, 9-19, 21-24, 26-32, 34-48, 50-62, 63-75, 77-81, 84-101	Algorithmic personalization system	Technology enablement
Data Management System (92) 1-5, 9-19, 21-24, 26-32, 34-48, 50-75, 77-92, 94-101		
Real-time adaption (59) 1-5, 7-12, 14-17, 23, 26-30, 34-39, 41-43, 46, 48, 50, 52, 54-61, 64-66, 70-72, 74-75, 77, 81, 85, 87, 90, 96-97, 99, 101		
Context-sensitive adaption (40) 3-5, 8, 13-14, 16-18, 21, 23, 26-29, 34, 39-40, 42, 46, 48-49, 54, 57, 59, 70-71, 74-75, 77, 79, 85, 87, 91, 93-94, 97-98, 100-101	Responsivity	
Dynamic adaption (52) 1-5, 7, 10-11, 13-17, 23-24, 27-29, 32, 34-35, 38-40, 42, 46, 48, 50, 54-55, 57, 60, 63-64, 66, 71-72, 77, 81, 84-85, 88-89, 91, 93, 96-101		
Multimodal learning (25) 4-5, 7, 13-14, 16, 18, 27, 29, 34-35, 39-40, 42, 44, 59, 66, 69, 72, 85, 88, 93, 97-98, 101		
Automation capability (49) 2, 4-5, 7-8, 10-12, 16, 18-19, 22-24, 27-29, 34, 36, 39-43, 49-52, 54, 59-60, 63-64, 66, 68, 70-72, 74-75, 77, 84, 88-89, 94, 96-98, 100	Proactivity	
Prediction capability (36) 1, 3-4, 8, 10-11, 15-19, 23, 26-28, 35, 39, 46, 49, 54, 56, 60-61, 64, 67-68, 70-72, 77-78, 81, 89, 95, 98, 101		
Behavioral data (86) 1, 4-8, 10-14, 16-40, 42-46, 48, 53-56, 58-75, 77, 79-83, 85-92, 94-101		
Contextual data (60) 1, 3-5, 7-8, 12-14, 16-18, 21-23, 26-29, 34, 38-40, 42, 46, 49-50, 54, 56-61, 66, 70-72, 74-75, 77, 80-82, 84-87, 89-94, 96-101	Data-intensification	Individual Centricity
Profile data (87) 1, 3-5, 7, 10-19, 21-33, 34-40, 42-44, 46-48, 52-56, 58-62, 64-77, 79-98, 100-101		

Real time data (56) 1-4, 8, 10, 12, 14-17, 26-30, 34-37, 39-42, 46, 48-50, 56-61, 64-65, 70-72, 74-75, 77, 79-80, 83-85, 87, 89, 92, 95-99, 101	Mass-individualization	
Granularity (87) 1-5, 10-31, 33-42, 44, 46-56, 58-62, 64-86, 89-91, 93-95, 97-101		
Scalability (43) 1-3, 7-8, 10, 13-14, 16, 18, 21-22, 24, 26-29, 35-36, 38-41, 50-52, 54, 58-59, 62, 64, 66, 68, 71, 74-75, 77, 79-80, 87, 96-97, 100		
Scope (56) 1, 3, 8, 12, 14-18, 26-28, 30-31, 33, 35-37, 39, 42, 45, 47, 50-51, 54, 56, 58, 60-66, 68-72, 74-75, 77-78, 81, 83-86, 88-91, 96, 98, 100-101		
Consumer agency (87) 1, 3-8, 11-14, 16-17, 19-40, 43-46, 48, 50-58, 60-66, 69-77, 79-91, 93-101	Agency	Relational Human- Technology Interaction
Algorithmic agency (88) 1-5, 7-8, 10-12, 14-19, 21-40, 43-46, 48, 50-58, 60-66, 69-77, 79-91, 93-101		
Shared agency (84) 1-8, 11, 13-18, 20-45, 47-48, 50-58, 60-61, 63-64, 70-71, 73-77, 79, 81-94, 96-101		
Personal relevance (39) 8, 10, 14, 16, 21, 27-29, 35, 41-42, 46, 48, 52, 54-58, 62, 64, 66, 70-71, 73-75, 77, 82, 86, 88-90, 95-98, 100-101	Relationality	
Simulation of social capabilities (25) 3, 7, 11-12, 15, 22, 26-28, 32, 37, 39, 42-43, 50-52, 55-56, 68, 70-71, 73-74, 77		

Table 1: Codes and themes developed in the thematic analysis

Technology Enablement serves as the operational foundation of hyper-personalization. It incorporates the need for an algorithmic personalization system to process data and deliver the tailored output. The underlying models store explicit preferences but also learn implicitly from feedback analysis. Other capabilities that shape the system's proactivity are the automated conduction of personalization processes and anticipation of behaviors, needs or preferences. Moreover, these systems are responsive: They adapt in a context-sensitive, instantaneous manner while dynamically targeting individual's changing needs. This element posits the technological system as one actor of hyper-personalization.

Complementarily, Individual Centricity emphasizes data as foundational resource and the focus on granular understanding. Hyper-personalization entails the integration of large amounts of typically digital and highly granular data, such as behavioral, contextual, or real-time. The resulting one-to-one treatment can be delivered on a large scale throughout various touchpoints, allowing for mass-individualization. Thus, the individual, both the source and subject of hyper-personalization's "fuel", implicitly becomes the second central actor.

Grounded in this foundation, the modus operandi of hyper-personalization forms the third element of Relational Human-Technology Interaction. It is shaped by two processual dynamics: First, both actors have agency, albeit to different extents. Individuals' engagement with the algorithmic personalization system is a prerequisite. More importantly, whether consciously or unconsciously, they act as active participants or co-creators, guiding the system through their input. Contrastingly, algorithmic agency extends to autonomous decision-making or independent self-improvement. The system's responsive and proactive

capabilities enable this scope of action. Second, hyper-personalization entails a relational dynamic. Algorithmic systems increasingly conduct human-like interactions, evolving with ongoing engagement. This facilitates AI-mediated social exchanges between the human and technological actor. Especially the elements of granular data, mass-individualization, and context-sensitivity drive the personal relevance of interactions. They are not only highly targeted to individual needs but also appropriate time and place. Together, these actors and dynamics converge in an interactive value-creation process, visualized in Figure 5. Summarizing, hyper-personalization is conceptualized as a relational human-technology interaction process, personalized at individual-level, enabled by technology and driven by data.

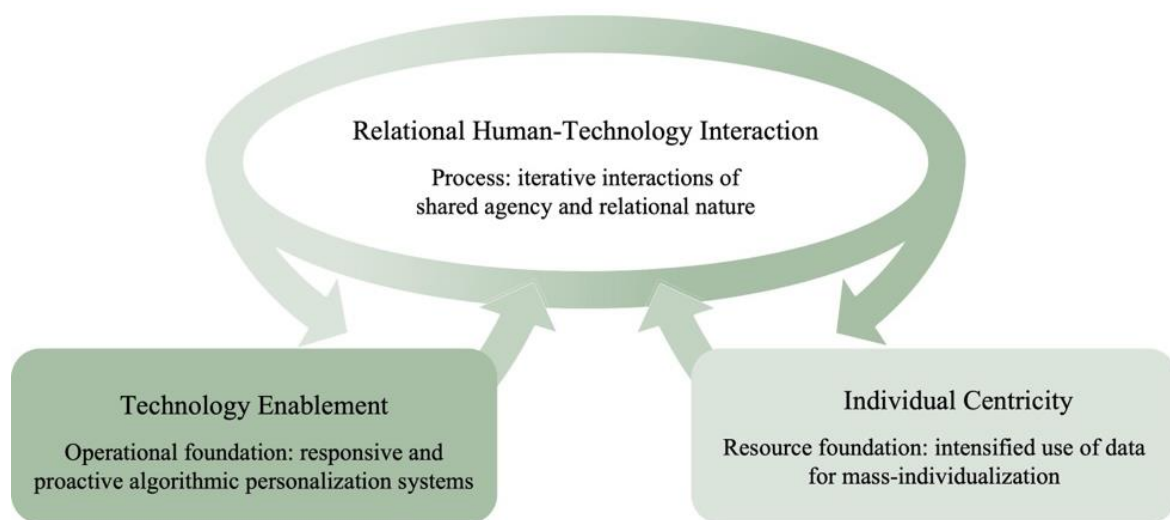


Figure 5: Thematic elements of hyper-personalization

5 Differentiation from Traditional Personalization

Hyper-personalization is evidently situated under the broader personalization umbrella. Beyond terminology, this alignment is, for example, evident in purposeful tailoring (Chandra et al., 2022) or processual nature (Vesanen & Raulas, 2006). The question whether it is more than a buzzword warrants a more systematic investigation. Hyper-personalization is described as the next evolution (Mehmood et al., 2024) or an advanced form of personalization (Mehmood et al., 2025), indicating some level of distinction. While 35 papers explicitly compare hyper-personalization with traditional personalization, ambiguity remains regarding the points of differentiation. A synthesis of the comparative sections in the data is structured through the developed thematic elements and displayed in Table 2.

Points of differentiation	Traditional personalization	Hyper-Personalization
Algorithmic personalization system	Delivered through human sales staff, frontline employees or rule-based recommendation systems	Delivered through advanced AI algorithms Requires autonomous AI technology
Capabilities	Typically based on retrospective learning and static tailoring Adaption is generally reactive	Based on automated, dynamic and real-time process Independent self-improvement Incorporates predictive analytics to anticipate behavior
Technology enablement	Possible, not required	Imperative
Data Types	Relies on limited customer data (especially in-store) E.g. transaction data, surveys, or basic user information relying on point-of-sale data	Relies on more (in terms of volume) and better (in terms of value) customer data. E.g. multi-channel behavioral data, contextual data, real-time or location data, social media activity
Scope	High level of personalization not possible at scale	High level of personalization even at scale
Granularity	Operates primarily at the segment level (e.g., demographic or lifestyle)	Operates at the individual level
Individual centricity	At segment-level	At individual-level
Agency	Personalization is company-initiated	Encompasses customization and personalization
Relational Human-Technology Interaction	Company-driven process Can entail human-human interaction	Interactive process Human-technology interaction

Table 2: Differentiation between traditional personalization and hyper-personalization

The synthesized comparisons broadly align with the developed conceptualization of hyper-personalization. Overarching, there is a strong convergence on Technology Enablement and Individual Centricity. However, the comparisons only punctually include the aspect of Relational Human–Technology Interaction (Mehmood et al., 2025; Rosenbaum et al., 2021) and none simultaneously address all elements. Consequently, extant differentiations privilege enablement and data intensity over the processual dynamics that constitute hyper-personalization’s modus operandi. Conclusively, extant distinctions inconsistently yet explicitly differentiate hyper-personalization as distinct form of personalization. The developed conceptualization presents defining elements for a clear distinction. Thus, hyper-personalization remains within the personalization umbrella yet warrants conceptual separation as a qualitatively different modality.

6 Discussion

First, this study contributes the fragmented discourse on hyper-personalization by developing an interdisciplinary conceptualization applicable across domains. Second, the structured differentiation from traditional personalization demonstrates that hyper-

personalization is not merely “more data” or “more AI,” but entails a distinct modality of relational human-technology interaction. Thus, this contribution follows authors such as Riegger et al. (2021) in acknowledging conceptual distinction but diverges in decoupling the conceptualization from domain-specific aspects, e.g., application at the point of sale in retail. This integrated perspective caters to the call for an investigation through different theoretical lenses (Gao & Liu, 2023) and provides a shared foundation for cross-domain applications. Moreover, it posits hyper-personalization’s modus operandi as central differentiator, rather than solely relying on elements non-exclusive to this form of personalization. This value-creation process connects it to the emerging discussion on relationality (Huang & Rust, 2017) and connection (Dishon, 2025) in human–technology interactions and highlights the need for more hyper-personalization work adopting this focus.

Limitations include the present analysis’ strong focus on elements, not yet considering outcomes conceptually. While the analysis adopts an interdisciplinary stance, its marketing-based foundations may influence interpretation and leave nuances in neighboring disciplines underexplored.

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