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Personalized Recommendation Algorithms in Digital Media: A Review of Engagement Effects, Information Cocoons, and Marketing Implications

Jueling Zhou[a,*]

[a]Sichuan Polytechnic Technician College, Chengdu, Sichuan 611130, China

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ABSTRACT

Artificial intelligence (AI) has become a significant force, demonstrating rapid and sustained growth on global digital media platforms. AI technologies on these platforms include machine learning, deep learning, natural language processing, expert systems, and highly advanced personalized recommendation algorithms. These AI-driven algorithms are crucial for enhancing user engagement on digital media platforms, such as smartphone applications, social media, and online media. These algorithms provide customized content based on user preferences, significantly influencing user consumption behavior. Meanwhile, the role of recommendation algorithms in content management and creation promotes the boundaries of personalization, which is effective in social media marketing and e-commerce. However, the rapid development of AI-based recommendation algorithms is likely to pose potential risks, such as the "information cocoon effect," producing homogeneous content and exacerbating social polarization and biases. Additionally, concerns about user privacy and ethical implications have been raised. This review aims to explore the multi-faceted impacts of AI-driven personalized recommendation algorithms on audiences of digital media platforms, focusing on audience engagement, changing user behavior through social media marketing, and the impact of the cocoon effect on users.

1. Introduction

Currently, artificial intelligence (AI) has played a pivotal role in digital media platforms globally, exhibiting a rapid and sustained growth pattern. Typical AI techniques involve machine learning and deep learning methods, natural language processing, and knowledge representation and expert systems[1]. Among these technologies, AI-driven personalized recommendation algorithms have significantly contributed to numerous the part of society, which particularly prevalent on digital media platforms. To enhance audience engagement across digital media platforms, namely smartphone applications, social media platforms, and online media, AI-based recommendation algorithms seems to be regarded one of the key functional principles of these platforms[2]. These AI-driven personalized algorithms typically deliver customized and automated content to users, which are based on the user's specific personal preferences[1]. The management and creation of content which based on AI[3]tend to push the limits of personalization. There is a greatly useful approach is to engage customers by using only personalised content that is relevant to them, especially in social media marketing and e-commerce aspects of the website[3]. This approach has the potential to significantly influence users' consumption behaviors. Moreover, since the push notification feature is considered to reconfigure the concepts of time and space in communication[4], it is likely to influence audience engagement which is regarded as the core of digital media platforms[5]. For instance, a report revealed that the retention rate of audience engaging with push notifications on digital platforms doubled, and the rates of engagement was over 85%, demonstrating the critical importance of AI push function[6].

However, it is argued that with the rapid development of AI-based recommendation algorithms, users of digital platforms are likely to face potential risks of the information cocoon effect. Numerous studies indicate that AI-driven recommendation algorithms tend to create homogeneous content and viewpoint bubbles for users, resulting in an "information cocoon effect"[7], which exacerbates social polarization and biases[8]. Therefore, the objective of this review is to analyze the various impacts of AI-driven personalized recommendation algorithms on the audience of digital media platforms. This paper will elaborate on three

* Corresponding author.
E-mail address: z1641442138@163.com.
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impacts: the impact of personalized algorithms on audience engagement, the information cocoon effect on users, and the influence of social media marketing on user behavior.

2.Literature review

2.1.AI-driven recommendation algorithms

Artificial Intelligence (AI) is regarded as the process of simulating the thinking and consciousness of human[9]. Essentially, it involves the development of intelligent machines capable of analyzing, reasoning, judging, and even perceiving similar to the human brain, resulting in alleviating the workload of humans[9]. AI technologies mainly include robotics, speech recognition, image recognition, natural language processing, and expert systems[9], which can be employed to make digital media platforms intelligent based on data characteristics[1]. For instance, deep learning, a subset of machine learning, addresses complex issues by utilizing diverse datasets[1]. Digital media platforms tend to use software tools, algorithms, and AI technologies to simplify and optimize various operations and procedures involved in maintaining social media accounts and engaging with the audience[5]. Recent developments in AI marketing include personalized content recommendation algorithms[10]. These algorithms suggest new content to users based on their unique preferences[10]. Personalized recommendation algorithms seem to offer numerous functionalities and data, aiding marketers in saving time and delivering focused and tailored content to audience[5]. They can learn and adapt, enhancing their effectiveness in identifying user behaviors, preferences, and trends[5].

2.2.Previous research of user engagement, information cocoon, and user spending habits

With the increasing prevalence of digital media platforms, numerous studies have focused on audience engagement in social media[11]. Audience engagement involves a range of behaviors, including likes, shares, comments, mentions, and click-through rates, reflecting different degrees of interest, involvement toward specific content or brands[5]. This concept is studied across various fields such as information systems, management, education, marketing, and psychology[11]. AI algorithms can collect and analyze numerous amounts of data from digital media platforms in real-time, enabling marketers to identify patterns, sentiments, and emerging topics[5]. Additionally, AI-driven recommendation algorithms facilitate meaningful interactions with audiences through tailored responses and promotional efforts[5]. A study mentions that many users express comfort, appreciation, and satisfaction with personalized push systems, describing the experience as pleasant and fulfilling[12]. According to some researchers, highly accurate personalized recommendations can be achieved through users' preferences and their past interactions[10]. personalized recommendations can alter users' responses to brands, enhancing behavioral intentions to some extent[10]. This implies that introducing a layer of personalization in digital media platform services could attract users, improving engagement[4]. Thus, AI-driven recommendation algorithms is aiding social media marketing in creating more tailored consumer experiences, predicting what customers want or need, and identifying which customers are likely to purchase a product[10]. However, some studies highlight that advertising research has traditionally focused on understanding customers' consumption preferences rather than their personalities, suggesting that the psychological predictors of advertising effectiveness remain under-researched[13].

Numerous studies have noted the impact of information cocoon formed by recommendation algorithms on users of digital media platforms. The persistence of information cocoon can be attributed to various factors, including information overload, algorithmic constraints, individual biases, and social identity[14]. Recent research indicates that most users encounter a reduced variety of information after interacting with AI-based recommendation algorithms, indicating that they may be trapped in so-called "information cocoons"[8]. Niu et al[14] mentioned that one reason is that people naturally seek information that supports their existing beliefs while ignoring information that contradicts those beliefs, a trend exacerbated by the development of personalized recommendation algorithms.

3.The impact of AI-based personalized recommendation algorithms on audience engagement

3.1.Metrics and influence degree of personalized recommendation system on audience engagement

The assessment and analysis of audience engagement is one of the core of digital media platforms，which can be able to be used to measure the degree and depth of user interaction with specific content presented using AI-driven recommendation algorithms in digital media platforms. The measurement of user engagement in digital media platforms is a multidimensional system of metrics. Manoharan[5] states that user quantitative metrics and qualitative metrics and retention related metrics can be used to analyse the impact of AI personalised recommender systems on user engagement. Manoharan[5] defines audience quantitative metrics as providing objective measure, including likes, shares, comments, and click-throughs, that will quantify the number and intensity of user interactions with AI generated content. Manoharan[5] mentions that qualitative metrics, including sentiment analysis and feedback from users in digital media platforms, will be used to measure the quality and sentiment of user interactions with AI generated content. In addition, metrics related to audience growth and retention, such as attention and churn rates, can be analyzed to assess the long-term impact of AI recommender systems on audience acquisition and retention. This combination of quantitative and qualitative evaluation can help platforms and content creators and media researchers to roundly understand the drivers, effects of audience engagement, further increasing user engagement more effectively.

AI-based personalised recommender systems may have varying degrees of impact on audience engagement depending

on the specific recommendation methods. Gebremeskel and De Vries[15] describe personalised recommendation as a two-stage process: the generation of a list of recommendations and the subsequent ranking of the list of recommendations. Recommender systems are based on the user's response to different recommendations during the interaction, thus increasing the variability among users. Similarly, the recommender systems of digital media platforms implicitly pull together by consuming more common content between two recommendation lists, or push each other by consuming more content with different objects[15]. Gavalas et al[16] classify personalised recommendation systems into three categories based on the level of audience engagement: pull-based systems, reactive systems and push-based systems. Pull-based recommender systems are driven by user requests and queries. For instance, a pull-based recommendation system is used when a user actively searches for online information[17], involving a large degree of audience involvement[17]. Service platforms with personalised features allow advertisers to incorporate empathy in their pushed messages, thus meeting specific user needs in pull-based recommender systems and enhancing user knowledge when searching for relevant products or services[17]. push-based systems, on the other hand, use specialised predictive models to proactively make content recommendations and push services on users' platforms[16]. Chong and Ma[17] proposed that compared to pull-based systems, push-based systems are more susceptible to a number of factors, such as perceived utility, social norms, and innovativeness, relating to the the level of user engagement. Shin[18] mentions some studies showing the significant influence of perceived usefulness and ease of use, social norms on user engagement and attitudes. Lanneskog[19] explains that platform users come from different cultural backgrounds, and that different cultural values and norms may influence the way audiences perceive and engage with the AI functionality on the platform. For example, some cultures may remain inclusive and open to AI capabilities, while others may be more sceptical[19]. Chong and Ma[17] conclude that personalised pull mobile recommender systems have a greater impact on user engagement than push mobile recommender systems. Therefore, the specific degree of impact of user engagement will vary depending on the recommendation method.

3.2.Case studies

Numerous research found that AI-driven personalised recommender systems have a considerable beneficial impact on improving audience engagement on digital media platforms. Gavilan et al[20] mention that the benefits of recommendation information assigned to a user's screen include: increasing the frequency of use of digital platforms, to avoid boredom, stimulating the user, and the continuous connection to current events the possibility of staying connected to current events. This represents an opportunity for digital platforms to reach users in a closed and private environment[20]. Some researchers have argued that recommender systems can make users more confident in their choices, while other studies have demonstrated that recommender algorithms have a positive impact on users' decision-making performance[17].

Several case studies demonstrate to some extent the impact of AI-based recommendation algorithm systems on the success of audience engagement in digital media platforms. For example, some travel digital media platforms not only automate the management of sharing of user activities and visitor content, but also provide personalised friend recommendations and VOIP communications that support casual collaboration to improve customer service and engagement on social media platforms[16]. Lil Nas X which has been successful in Playing TikTok and other social media platforms have had success in engaging users and increasing user engagement, which illustrates the importance of creatives understanding how platform culture works to increase user engagement, especially the workings of content recommendation algorithms[21]. Through the use of algorithms, organisations can learn more about their audiences and build relevant and exciting content with them, leading to more attention and interaction on their digital media platforms.

4.Information cocoons

4.1.The emergence of information cocoons

The relationship between AI-driven personalization algorithms and information cocoons AI-based personalised recommendation algorithms seem to be closely related to the creation of information cocoons. However, it does not mean that personalised recommendation algorithms can directly lead to the emergence of information cocoons. More accurate personalisation is not necessarily accompanied by the emergence of more severe information cocoons[22]. This means that personalised recommendation algorithms through inaccuracy and over-reliance on obtaining user information tend to lead to the emergence of information cocoons. One study proposed three aspects of information cocoon formation, including demographics, video content, and user recommendation interactions driven by algorithms and user preferences[14]. Piao et al[8] used an adaptive dynamics modelling framework to explain the main factors of personalised recommendation algorithms that lead to the emergence of an information cocoon, namely over-reliance of recommender systems on similarity between users and content, and overuse of users' positive feedback. The frequency of user-content the similarity and overuse of positive feedback is positively correlated with the probability of the emergence of information cocoons. This means that the system over-recommends content that is similar to the user's past preferences and over-reliance on the positive feedback given by the user, leading to a reduction in the diversity of information and the neglect of other information that is useful to the user, thus creating an information cocoon effect[8].

4.2.The impact of information cocoon caused by recommendation algorithm on users

The information cocoon created by recommendation algorithms may increase the homogeneity and occlusion of

users' information, which may increase disagreement and bias. Overconsumption of certain types of content is more likely to contribute to a homogeneous user experience[22]. This is because after constantly viewing a large amount of similar content, users receive content that gradually forms a barrier as they are less likely to receive other types of information outside of their cocoon[14]. This can lead to users becoming less likely to see or read opposing voices, an increase in ideological homogeneity, and a widening of the gap between groups of users with different opinions[19]. This widening gap may further deepen social divisions and bias. With the help of personalised recommendation algorithms, the widening gap tends to bring together similar biases and related emotions, reducing ideological diversity, and controlling and influencing user practices while catering to the system[23]. A longitudinal study found that over time, information cocooning helps to deepen political divisions between various ideological groups in addition to reinforcing pre-existing perceptions, and may also influence the voting preferences of undecided voters[14]. For example, the 2016 UK EU referendum and the election of Donald Trump as president are often used as examples of recommendation algorithms and information cocoons[23].

4.3.How to avoid the information cocoon effect

The information cocoon effect due to AI-based personalised recommendation algorithms may be avoided and broken down by briefly elaborating on two aspects, including the individual user perspective and the digital media platform dimension. Digital media platforms can provide more comprehensive and diverse content recommendation services. Digital media platforms should provide diversified recommended content to users and avoid providing homogenised information directly to users, which result in weakening the information cocoon. The lack of diversity in recommended content brings about homogenised information, which can lead to user boredom[24] and make it difficult for digital media platforms to further increase long-term user engagement[22]. Therefore, digital media platforms can add content in unfollowed areas based on the topics that users are interested in. Meanwhile, digital media platforms can provide more comprehensive recommendation services to reduce the possibility of information cocooning. Piao et al[8] suggest that digital media platforms can effectively use negative feedback to help users get rid of information cocoon. This research suggests that the recommendation algorithms should more comprehensively and accurately capture the users ‘real preferences, further increasing the diversity of users’ information acquisition. From the user's personal perspective, users should actively avoid browsing information in a homogeneous way and broaden the range of their interests. This is because the wider the range of user preferences, the gentler the information cocoon[22].

5.Changes in user consumption behavior by social media marketing under recommender systems

5.1.The combination of recommendation systems and commerce models on social media platforms

The boundaries between e-commerce and social media platforms are blurring with the widespread use of personalised recommendation algorithms in digital marketing. Marketing activities, known as the 4Ps - product, price, promotion and place - are being influenced by personalised recommendation algorithms on digital media platforms[25], giving rise to the phenomenon of social commerce. The social commerce phenomenon is experiencing significant growth with users conveniently shopping without leaving their favourite social media sites[26]. Using artificial intelligence algorithms and consumer behaviour analytics, personalised information and product recommendations can be provided to each individual and marketing communications will become increasingly personalised and targeted[26]. Unlike e-commerce sites that follow shoppers' abandoned carts, content recommendation solutions use machine learning to provide options that users want to engage with[27].

5.2.How recommender systems influence users' consumer behaviour

Personalised recommender systems use user information to significantly influence consumer behaviour through content filtering and enhanced brand positioning. AI-based recommender systems can collect and analyse user information and predict user behaviour[28] to influence consumer behaviour. User information, including personal transactional information, namely identity, credit history, address, and other information, namely search history, visited Internet sites, preferences, and even disease information, is utilised by digital media platforms with each consumer click[29]. The use of this information by digital technologies enables BtoB and BtoC to build faster buyer-seller relationships, quickly understand customer needs, predict their behaviour and respond to their desires[25]. Based on previous searches, organisations increase subscriptions by recommending items to consumers that have been purchased by other similar users[3]. This is because consumers are more likely to focus on similar audience groups and can quickly access their desired goods after completing a subscription service. Therefore, a successful recommender system not only saves time in filtering out numerous useless information about goods, but also helps consumers to choose products and services that suit their needs, thus improving and supporting their decision-making[17], which leads to increased customer retention[30]. For example, Amazon and Netflix understand their users through the content they browse, the content they subscribe to, and the films and TV shows they watch and enjoy, and sequentially recommend the best products that consumers are most likely to like[31], as result increasing consumer purchasing power.

Meanwhile, recommendation algorithms can help brands achieve better brand positioning as they can build and strengthen their positioning through social media, online

advertising and communication[17]. Through the statistics of the referral system, the company can view the number of visitors, time spent, people who clicked on adverts, and conversion rates. With the personal data of the potential target audience, the company further puts more effort into producing content so that in the buyer can see content that matches the item[3]. When consumers find content that matches them, it may increase the possibility of purchasing behaviour, even if the consumer has not tried that type of product. For example, a Madame Curie charity succeeded in dramatically increasing user attention and online registrations by modelling the target demographic and driving persona-driven content based on their collected content and interactions[32].

5.3.Implications of user personalised recommendations for marketing strategies

Due to the widespread use of personalised recommendation systems, merchants should consider price response and follow data protection rules when using personalised recommendation systems for marketing. Both merchants and users demonstrate reliance on personalised recommendation systems. More than 66% of consumers want merchants to provide content that meets users' needs, and more than 90% of consumers prefer to purchase brands that offer personalised content[27]. Along with personalised content, price preference seems to be one of the main factors for consumers to consider goods. It has been argued that if a vendor recommends a product that takes into account both price responses, it will satisfy both the content and price preferences of the customer[10], which will largely influence the audience. Therefore, recommender systems can be evaluated to see if they provide a useful scale for users to evaluate price fairness[10]. Merchants can also consider using a dynamic pricing approach based on personalised recommender systems to ensure that users' price preferences and merchants maximise profits. Algorithms used to analyse customer data in personalised recommendation systems can be used to implement dynamic pricing[3].

Furthermore, marketers should keep users' data safe and follow data protection rules. Several studies have pointed out that personalised recommendation systems involve the collection of large amounts of data from users, and the resulting privacy concerns also increase scepticism and avoidance of recommended content[33], and may prompt consumers to take negative actions ranging from providing false information to spreading negative word-of-mouth or seeking stricter regulatory controls[33]. All of these responses reduce the overall effectiveness of adverts and recommended messages in digital media platforms[33]. Therefore, marketing teams must follow the rules of user data usage. Marketers must be careful when deciding the best way to integrate AI into merchant campaigns and platforms[3].

6.Conclusion

Personalised recommendation algorithms based on artificial intelligence are widely used in digital media platforms and have had a profound impact on users. This study explored the impact of recommendation algorithms on user engagement, the impact of the information cocoon created by recommendation algorithms on users, and the impact of recommendation algorithm-based digital marketing on user behaviour. In terms of the impact on user engagement, recommendation algorithms have, in general, brought about a positive impact on user engagement. Recommendation algorithms can help digital media platforms to effectively increase user engagement. However, the impact of the system on user engagement may have different effectiveness depending on the specific recommendation method. Pull-based recommender systems are more effective than push-based recommender systems in improving user effectiveness. In terms of the impact of information cocooning on users, AI-based personalised recommendation algorithms are linked to the creation of information cocoons to a certain extent, but personalised recommendation algorithms are not able to directly lead to the emergence of information cocoons. The information cocoon caused by recommendation algorithms may increase the homogeneity and occlusion of users' information, which may increase social differentiation and prejudice. The information cocoon caused by recommendation algorithms can be mitigated and broken from the perspective of individuals and digital media platforms. In terms of the impact of digital marketing based on recommendation algorithms on user behaviour, the combination of AI recommendation systems and commerce is effectively, and rapidly, changing the way of marketing. Personalised recommendation systems on digital media platforms use user information to significantly drive user consumption and improve customer retention through content recommendations and enhanced brand positioning. It is important to note that merchants should consider price response and follow data protection rules when using personalised recommendation systems for marketing.

Although, personalised recommendation systems based on artificial intelligence have demonstrated a positive impact on users, helping customers to get personalised content based on their preferences. However, some researchers have pointed out user privacy issues[29]. Social media users hold privacy and ethical concerns and expectations about AI, such as algorithms that infer unspecified user demographics or diagnoses from public data[29]. Future personalised recommendation algorithms for AI should also be concerned about the implications in terms of privacy breaches.

References

[1] SARKER I H, HOQUE M M, UDDIN M K, et al. Mobile Data Science and Intelligent Apps: concepts, AI-Based modeling and research directions. Mobile Networks and Applications, 2020, 26(1): 285 – 303.

[2] HSU T H, TANG J W. Development of hierarchical structure and analytical model of key factors for mobile app stickiness. Journal of Innovation & Knowledge, 2020, 5(1): 68 – 79.

[3] NAIR K, GUPTA R. Application of AI technology in modern digital marketing environment. World Journal of Entrepreneurship, Management and Sustainable Development, 2021, 17(3): 318 – 328.

[4] WHEATLEY D, FERRER-CONILL R. The Temporal nature of mobile push notification alerts: A study of European news outlets' dissemination patterns. Digital Journalism, 2020, 9(6): 694 – 714.

[5] MANOHARAN N A. Enhancing audience engagement through ai-powered social media automation. World Journal of Advanced Engineering Technology and Sciences, 2024, 11(2): 150 – 157.
[6] HE Q, ZENG Z. The dark side of smartphone application's smart push function: Exploring its impact on fear of missing out and smartphone addiction. Communication and the Public, 2024, 9(2): 178 – 198.
[7] LIANG S, ALIMU N, SI H, et al. Influence of artificial intelligence recommendation on consumers' purchase intention under the information cocoon effect//Lecture Notes in Computer Science. Berlin, Germany: Springer, 2023: 249 – 259.
[8] PIAO J, LIU J, ZHANG F, et al. Human – AI adaptive dynamics drives the emergence of information cocoons. Nature Machine Intelligence, 2023, 5(11): 1214 – 1224.
[9] LU Y, GUO C, DAI X, et al. Data-efficient image captioning of fine art paintings via virtual-real semantic alignment training. Neurocomputing, 2022, 490: 163 – 180.
[10] PATNAIK P, NAYAK P, MISRA S. Personalized product recommendation and user satisfaction//Advances in Logistics, Operations, and Management Science. Hershey, USA: IGI Global, 2023: 102 – 128.
[11] SHAHBAZNEZHAD H, DOLAN R, RASHIDIRAD M. The role of social media content format and platform in users' engagement behavior. Journal of Interactive Marketing, 2021, 53: 47 – 65.
[12] DU Y R. Personalization, echo Chambers, News Literacy, and Algorithmic Literacy: A Qualitative study of AI-Powered News App users. Journal of Broadcasting & Electronic Media, 2023, 67(3): 246 – 273.
[13] OLSACHER A, BADE C, EHLERS J, et al. How to effectively communicate health information on social media depending on the audience's personality traits: An experimental study in the context of organ donation in Germany. Social Science & Medicine, 2023, 335: 1 – 11.
[14] NIU L, TIAN R, CHEN I, et al. The influence of information cocoons on modern consumers//Advances in Economics, Business and Management Research. Dordrecht, Netherlands: Atlantis Press, 2023: 420 – 431.
[15] GEBREMESKEL G G, DE VRIES A P. Pull – push: a measure of over- or underpersonalization in recommendation. International Journal of Data Science and Analytics, 2022, 16(2): 255 – 269.
[16] GAVALAS D, KONSTANTOPOULOS C, MASTAKAS K, et al. Mobile recommender systems in tourism. Journal of Network and Computer Applications, 2014, 39: 319 – 333.
[17] CHONG W K, MA Z. The quality of user experiences for mobile recommendation systems: an end-user perspective. Industrial Management & Data Systems, 2021, 121(5): 1063 – 1081.
[18] SHIN D. User perceptions of algorithmic decisions in the Personalized AI System: Perceptual evaluation of fairness, accountability, transparency, and explainability. Journal of Broadcasting & Electronic Media, 2020, 64(4): 541 – 565.
[19] LANNESKOG L. The Impact of AI Integration on Audience: A qualitative Study of Young Adults' Perspectives and Attitudes towards the Integration of AI on TikTok. 2023. https://www.diva-portal.org/smash/get/diva2:1782242/FULLTEXT01.pdf
[20] GAVILAN D, FERNÁNDEZ-LORES S, MARTINEZ-NAVARRO G. Vividness of news push notifications and users' response. Technological Forecasting and Social Change, 2020, 161: 120281.
[21] COLLIE N, WILSON-BARNAO C. Playing with TikTok: algorithmic culture and the future of creative work//Edward Elgar Publishing eBooks. Cheltenham, UK: Edward Elgar Publishing, 2020: 172 – 188.
[22] LI N, GAO C, PIAO J, et al. An exploratory study of information cocoon on short-form video platform//Proceedings of the 31st ACM International Conference on Information & Knowledge Management. New York, USA: ACM, 2022: 4178 – 4182.
[23] YANG W. Information Cocoons on Social Media: Why and How Should the Government Regulate Algorithms. arXiv, 2024: arXiv:2404.15630.
[24] SUN Y, WU Y, ZHOU Y. Exploring the influencing factors of breaking through the information cocoon. Communications in Humanities Research, 2023, 12(1): 198 – 208.
[25] CONTI E, CAMILLO F, PENCARELLI T. The impact of digitalization on marketing activities in manufacturing companies. The TQM Journal, 2023, 35(9): 59 – 82.
[26] PUNJABI P, ARUNA V, PATIL S S, et al. Navigating the New Wave; Unveiling the Transformation Effects of social media On Digital Marketing in The Emerging Era. Journal of Informatics Education and Research, 2024, 4(1): 35 – 41.
[27] PIAO, DIGIDAY. The publisher's guide to audience engagement. Digiday and Piano, 2023: 1 – 6.https://piano.io/wp-content/uploads/2023/03/The-publishers-guide-to-audience-engagement-Piano.pdf
[28] HALEEM A, JAVAID M, QADRI M A, et al. Artificial intelligence (AI) applications for marketing: A literature-based study. International Journal of Intelligent Networks, 2022, 3: 119 – 132.
[29] LIU R, GUPTA S, PATEL P. The application of the principles of responsible AI on social media marketing for digital health. Information Systems Frontiers, 2021, 25(6): 2275 – 2299.
[30] CHOWDHURY S, BASU S, SINGH P. Influence of AI driven digital marketing on consumer purchase Intention: An Empirical study. Journal of Informatics Education and Research, 2024, 4(2): 575 – 584.
[31] AFFINE. Recommendation Systems for Marketing Analytics. Affine, 2021. https://affine.ai/recommendation-systems-for-marketing-analytics/
[32] HORBERRY R. 10 brilliant personalized marketing Examples. GWI, 2023. https://blog.gwi.com/marketing/personalized-marketing-works/
[33] AGUIRRE E, ROGGEVEEN A L, GREWAL D, et al. The personalization-privacy paradox: implications for new media. Journal of Consumer Marketing, 2016, 33(2): 98 – 110.