Exploration of Effective Methodologies for Web Personalization

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Изследване на ефективни методологии за уеб персонализация

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Abstract
In the dynamic landscape of online interactions, the exploration of effective methodologies for web personalization emerges as a critical step in the digital marketing strategy of a brand. As users navigate through an increasingly vast digital realm, the ability to tailor online experiences becomes pivotal for engaging and retaining diverse audiences. This study delves into the multifaceted realm of web personalization, aiming to understand methodologies that prove efficacious in crafting tailored digital experiences. Key considerations include the strategic deployment of technology, the role of data analytics, and the implementation of a buyer persona to better analyze user behavior. By evaluating diverse approaches, this exploration seeks to unravel best practices that resonate with customers, foster heightened user engagement, and contribute to the evolving landscape of personalized online experiences. Ultimately, this research aims to provide insights that empower businesses and digital platforms to navigate the complexities of web personalization successfully.

Keywords: personalization, technology, tailored experience, customer insights, buyer persona

Резюме
В динамичния пейзаж на онлайн взаимодействията, изследването на ефективни методологии за уеб персонализация възниква като критична стъпка от дигиталната маркетинг стратегия на бранда. Докато потребителите се придвижват през все пообширната цифрова среда, възможността да персонализират онлайн преживяванията става от съществено значение за привличането и задържането на разнообразна аудитория. Това изследване прониква в многопластовата област на уеб персонализация с цел разбиране на методологии, които се оказват ефикасни при създаването на персонализирани цифрови преживявания. Ключови аспекти в това са стратегическото внедряване на технологии, ролята на анализа на данни и използването на персона за по добър анализ на потребителското поведение. Чрез оценка на разнообразни подходи това изследване се стреми да разкре най-добрите практики, които резонират с нуждите на клиентите, насърчават висока ангажираност на потребителите и допринасят за развиващия се пейзаж на персонализирани онлайн преживявания. Не на последно място това изследване има за цел да предостави насоки, които подпомагат бизнеспотенциалните платформи да се справят успешно със спецификите на уеб персонализацията.
Ключови думи: персонализация, технологии, персонализирано преживяване, клиентски инсайт, персона
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Introduction

In today's rapidly evolving digital landscape, the power of personalization has emerged as a paramount driver of success. The ability to tailor digital content to individual preferences and needs has not only transformed the way businesses engage with their audiences but has also become a cornerstone of user experience. From e-commerce platforms to content-driven websites, personalization is the key to captivating and retaining users. In this era of data-driven decision-making mastering the best practices for personalization of digital content is more critical than ever. The emergence of social media and the proliferation of digital devices has established new rules whereby consumers actively dictate their preferences. Companies today have infinite opportunities to get to know their customers using insights about their browsing or purchasing behavior along with rapidly evolving channels and platforms where information about consumer needs and practices is increasingly revealed. In line with the eternal mantra - "customer is king", one of the most popular trends in e-commerce and in the online space, in general, is the customization of products to satisfy the needs of the customer and increase online sales.

Personalization is a multifaceted concept that lies at the heart of modern digital experiences. It can be described as the practice of customizing content, products, services, and interactions to cater to the unique preferences, behaviors, and needs of individual users or target audiences. This dynamic and data-driven approach has become a defining feature of the digital age, influencing a wide range of industries, from e-commerce and content delivery to marketing and customer service. By presenting modern methods of personalization, this paper sheds light on examples of successful practices that companies use to create a more fruitful relationship with consumers and address their requests. Thus, the report aims to reveal a different approach to using user data that holds benefits for both online businesses and the target audience they want to reach. In the content-rich online space offering relevant recommendations is only the beginning of creating long-term brand interactions and the methods of retaining users are numerous.

Relevance of the topic

The idea of personalizing content is not new, but as technology advances more and more companies are investing resources in getting to know their customers better and providing them with useful recommendations. Leading industry research shows that 76% of consumers
expect the companies they shop with to provide them with personalized offers (McKinsey & Company, 2021). What is more, they appreciate the fact that companies spend time and effort in getting to know their interests more thoroughly, and in return, they respond positively when they receive feedback with relevant offers or a request to write a review about their good experience. When customers feel special they are also more likely to make a purchase. Personalization is particularly effective at driving repeated engagement and loyalty over time. Repeated interactions create more data that companies analyze and use as new tactics to design increasingly relevant experiences (Gonzalez & Rabbi, 2023).

The growing interest in personalization in recent times is also due to the popularity of digital advertising, which is now an indispensable part of communication platforms and channels. Personalization largely complements advertising and the two concepts have become intertwined, as an advertisement on Amazon for instance would not be successful if it did not consider a user's browsing history or recent purchase data. The use of personalization as part of the marketing strategy is of fundamental importance for businesses as they can benefit from an average revenue increase of between 5% and 15% thanks to the successful implementation of this practice (Chandra et al., 2022). This is also directly related to a growth in user engagement between 20% and 30%, as well as a boost in customer satisfaction by 20 percent (McKinsey & Company, 2020). Offering relevant offers is especially important when consumers are faced with a myriad of products that they are not familiar with and are not sure how to navigate through. Audience preferences in such situations are constructed at the moment and depend almost entirely on context, how the information is presented, and how much the content resonates with their current needs.

**Online personalization and its benefits**

Personalization is a marketing term that consists of providing certain online experiences based on personal and behavioral data for each customer (Chandra et al., 2022). This can be in the form of pop-up banners on commercial sites, personalized results in online search engines, relevant product recommendations displayed on social networks or e-mail, as well as adapted web page designs. Above all, personalization is an automated process and is initiated by the system that automatically adjusts the website content to each customer based on their data. In other words, this method does not require explicit user input or control to generate personalized content. Personalization is also defined as a strategy for gaining a competitive advantage based on extensive knowledge of the user (by building a profile – buyer persona) and the products.
and services they need. Customers benefit from personalized content because it reduces disorientation by focusing on options that meet their requirements and helps them make more accurate choices. Presented successfully this method has the potential to increase customer satisfaction by improving the quality of their decisions. As a result, the customer becomes more confident in their intentions to purchase a product or service.

Personalizing content has proven to be greatly beneficial both from business and consumer perspective. One of the advantages is the user-centric approach, whereby the user is placed at the center of the digital experience. It acknowledges that individuals have distinct tastes, interests, and behaviors, and aims to align digital content with these preferences. This in turn leads to enhanced user engagement, as personalized experiences capture user attention and interest leading to longer time spent on websites or apps. When it comes to product recommendations either via email marketing or directly via social media ads, users tend to be more likely to consider purchasing an item that is tailored to their gender, interest, or recent web search activity. Customers appreciate the convenience and relevance of tailored content, as this reduces the stress of having to choose from millions of products online and, leads to positive brand perceptions. That results in an improved conversion of customers for companies and it is also the beginning of building trust and loyalty. Personalization techniques can be an important factor in building a sense of connection between a brand and a customer. Last but not least, the use of an effective marketing strategy helps companies reduce their ad spend and increase ROI (return on investment).

**Personalization in practice**

Businesses have a variety of ways to obtain the needed information about their target audience to provide a better online experience. One of the easiest ways is to locate the user's location and give an offer based on real-time data. Depending on browsing behavior, the customer can be also targeted with specific content that is communicated either on the same platform or on another channel. In the first scenario recommendations can be entirely situated in an online store and take the form of product offers that resonate with previous purchases from the same place. An example of the second scenario is receiving a personalized email reminding the online store visitor that they forgot to purchase an item in their shopping cart. Other guidelines include offers based on data provided directly by the user. In many cases, users consent to online platforms using information such as date of birth, phone number, gender, or email, which are then used to communicate individual offers. The methods of
personalization are different, and more often their effectiveness is measured in the combination of several tactics to more skillfully retain the user community. Important in choosing a good strategy are the target audience and especially its characteristics, behavior, and size.

**Technology and web personalization**

Personalization can be considered as the process of collecting, storing, and analyzing current and past user interactions with a specific brand online. This helps the user to get relevant and correct information. Because it is difficult to provide such content globally personalization requires the intervention of software to participate in interactions with the user. The web personalization process is divided into three main phases: data preparation and transformation, persona building, and providing relevant recommendations.

**Data collection and analysis.** Every interaction between an organization's touchpoints and its customers generates data and through these touchpoints, companies have the opportunity to record insights that can generate value for them (Erevelles et al., 2016). The first phase is characterized by the collection of data about users to draw detailed conclusions based on their web browsing behavior. The large volume, heterogeneity, and lack of structure of the received information require the use of more advanced technologies for reading the hidden relationships between quantitative and qualitative data (Kaur & Kaur). Once captured this information is expertly curated and analyzed and ultimately transformed into useful insights for the user (Gonzalez & Rabbi, 2023). This is where machine learning and statistical methods come into play, through which the pattern or the so-called buyer persona is derived. Machine learning plays a crucial role in curating personalized content by leveraging algorithms to analyze vast amounts of data and make predictions or recommendations based on user behavior, preferences, and patterns. In addition, machine learning empowers content providers to move beyond static, one-size-fits-all approaches to content curation. By continuously learning from user data, these algorithms create a dynamic and personalized digital experience, making content more relevant, engaging, and tailored to individual preferences.

**Building a buyer persona profile.** A buyer persona is a fictional character based on real data about existing customers and educated speculation about their demographics, behaviors, needs, and motivations (Whiz, 2017). By knowing the customer’s gender, current pain points, and even family status, companies can successfully segment the audience into smaller clusters, making the selection of content more strategic and accurate. On top of this, having insights into user behavior and goals, companies can build a complete image or profile of the customer,
including the content they need and the channels they use. Given the nature of a website or mobile application, personas can be multiple and varied (Whiz, 2017). For instance, online retailers that offer products from fashion goods to electrical appliances and groceries might need to adopt multiple personas to tailor their products and marketing communication accordingly. Having more than one persona is also accompanied by the fact that consumers go through the purchase stages differently and then it is important what information they see to successfully proceed to the final purchase step. Figure 1 below shows an example of a buyer persona in the form of a fictional customer for which all collected data has been organized into needs, pain points, behavior, and preferred channels:

**Figure 1**

*Buyer persona example*

<table>
<thead>
<tr>
<th>NEEDS</th>
<th>PAIN POINTS</th>
<th>BEHAVIOR</th>
<th>PREFERRED CHANNELS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Find activities suitable for couples</td>
<td>• Difficult to navigate on websites that are not mobile-friendly</td>
<td>• Travels with partner</td>
<td>• Search (keywords about destinations, restaurants, attractions)</td>
</tr>
<tr>
<td>• Look for exotic trip destinations</td>
<td>• Too many travel agency options</td>
<td>• Consulti with travel blogs, writes reviews</td>
<td>• Social media (travel bloggers on Instagram)</td>
</tr>
<tr>
<td>suitable for couples</td>
<td>• No online booking service for attractions</td>
<td>• Prefers to book online and on mobile device</td>
<td>• Review sites (Tripadvisor, Google Maps)</td>
</tr>
<tr>
<td>• Fast mobile-friendly mobile online booking process</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Use of personalized content.** The last stage of the web personalization process is precisely the use of relevant content in the form of recommendations that are relevant and useful for the given user (Kavenius, 2020). This cannot happen without the previous two steps of collecting, assimilating data, and distributing it into certain patterns. Providing customers with content that resonates with their interests and needs translates into enhanced user engagement and increased sales. When users encounter content that aligns with their pain points, they are more likely to engage with it and purchase it. Lastly, delivering content that reflects an understanding
of the user's preferences fosters a sense of trust and in the long term this transforms into brand loyalty.

**Prerequisites for successful personalization practices**

Based on the steps described above companies build solid foundations derived from broad knowledge of the target audience and its needs. It is no coincidence that investing in the right software is key, as without it would be impossible to analyze user data and thereby automate the personalization process (Whiz, 2017). Such software combines various techniques to optimize customer interactions, including intelligent personalization technology, the ability to A/B test content, analyze user behavior, and refine marketing strategy at every stage of the web experience. In addition, personalization software allows disconnected channels to get aligned by seamlessly transferring communication from one channel to another. An example of this is email marketing which based on automation generates targeted email campaigns and contributes to more effective communication with the user when he or she leaves the mobile application or website.

The communication channels used by a brand to reach its consumers must be well synchronized to offer the best customer experience possible. This requires a strategic approach and tailoring content according to channel and device. Retaining users through personalized experiences across platforms and at different times is possible thanks to the pervasiveness of web personalization technologies. It is also important how this content is presented, how intuitive the navigation in an electronic store is, how easily users find the information they need, and how quickly it reaches them. The role of content should not be underestimated. Regardless of the channel consumers expect to consume content that matches their recent web searches, that is useful, and most importantly that resonates with their interests.

**Conclusion**

Content personalization is becoming a must in the online space for both businesses and consumers. While personalization is not a new concept in the world of digital marketing, companies with a digital presence today have easier access to consumer data and have more technological know-how to turn data into actionable insights. This is how they manage to capture the interests, behavior, and desires of each individual and create special content according to these characteristics. Through examples of successful practices that are used in various forms and formats companies not only manage to increase their revenues but also gain the far more valuable engagement and trust of their target audience.
References
Kaur, R., & Kaur, E. I. (2020). Web personalization: As a key to relevant and precise information