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An Analysis of The Optimal Advertising Format for Artificial Intelligence (AI) Tools.

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AI Goes Advertising:

An Analysis of The Optimal Advertising Format for Artificial Intelligence (AI) Tools.

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ABSTRACT:

This discussion paper examines the success factors of different advertising formats on AI platforms and based on this, develops a practice-oriented guide for the successful implementation of operational advertising measures for AI tools. The relevance of the topic results from the growing importance of AI in everyday digital life as well as the challenges for existing advertising measures to "prevail" in an increasingly advertising-resistant environment. This article is based on an IU master's thesis in which comprehensive literature research was combined with expert interviews and focus groups. Methodologically, potential success factors of different forms of advertising are identified and then evaluated regarding their "target group performance" using a self-developed “AI Advertising Relevance Score” (AARS) based on an utility model. The work further develops existing research on the integration of advertising formats in AI tools while also providing valuable implementation recommendations for operational practice. The still largely limited use of advertising in AI tools shows that further empirical studies are required to validate the direct applicability of the research results presented here in different scenarios. Overall, however, the work makes a valuable contribution to the fundamental understanding of the possibilities and limits of different advertising formats in AI tools and provides practical implications for the sustainable economic stabilization or "monetization" of conversational AI systems such as ChatGPT, Google Gemini or CoPilot.

KEYWORDS:

Digitalization, artificial intelligence, ChatGPT, Google Gemini, CoPilot, AI tools, advertising, communication, success factors, utility analysis.

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Problem definition and current state of research

Artificial intelligence is currently gaining rapidly in importance and is a key driver of digitalization, both economically and socially. Companies are increasingly investing in AI technologies (Gartenberg 2025), and even though concerns seem to be growing among the population, many companies are recognizing the benefits of AI in areas such as healthcare, tourism and education (Tyson and Kukichi 2023). AI applications have also long been established in everyday life, from digital assistants, process optimization and data analysis to personalized recommendations (Talati et al. 2024, p. 35). New opportunities are also opening up in marketing and advertising integration, which underlines the increasing economic relevance of this technology (Kumar et al. 2024, p. 20).

In the context of this discussion paper, we generally understand artificial intelligence to be a branch of computer science that deals with the development of intelligent systems (Batarseh 2018, p. 1-3). Originally, the focus was on imitating human thinking, but today the focus is also on efficiency and the search for new solutions (Russell and Norvig 2022, pp. 35-45). The definition of "intelligence" in the context of AI is not clearly defined, but the ability of a system to learn from experience and adapt to new requirements is often emphasized (Legg and Hutter 2007, p. 413). It is crucial that intelligence is not determined solely by simple input-output relationships, but by the flexible reaction to different situations (Legg and Hutter 2007, p. 416). AI therefore encompasses a wide range of application areas such as text and image recognition, language processing and data analysis.

In this context, the term "AI tools" refers to AI based software applications that provide user facing functionalities such as text generation, recommendation, or assistance in decision making, ranging from chatbots like ChatGPT to research assistants such as Elicit or SciSpace (Tomczyk et al. 2024).

Accordingly, it is obvious that the integration of advertising measures into AI-supported platforms is currently in a dynamic development phase and varies greatly between the different providers. Established companies such as Google and Microsoft are already testing initial monetization strategies through advertising (Dang 2023), while OpenAI founder Sam Altman initially distanced himself from advertising measures on his platform (Altman 19.03.2024). However, the ChatGPT provider is now also reporting on the gradual establishment of advertising measures (Murgia et al. 2024). (Fuhrmann 2025) Text-based AI applications in particular are the focus of development here.

Against this dynamic and evolving landscape, this discussion paper focuses on the following central research question: *Which success factors on AI tools are relevant to place optimal ads?* This question guides the analysis of emerging advertising strategies and their effectiveness within AI tools.

Microsoft is currently testing the integration of advertisements into its AI-supported chatbots such as Copilot. The aim is to test new forms of digital advertising in which ads are contextually integrated into chat histories (Jones 2025). These include visual formats such as "showroom ads" and functions such as "ad voice", which are intended to inform users about the connection between the query and the ad (Jones 2025). Initial tests indicate higher click-through rates compared to traditional search, while questions regarding transparency and user acceptance continue to be discussed (Jones 2025). Google is pursuing a similar strategy with its Gemini chatbot and is introducing a new advertising format with AI Overview Ads (Roth 2024). These ads appear in the AI-generated answers of Google searches and are

based on existing campaigns (Roth 2024). Although they potentially offer high visibility, the effects on user interaction and advertising impact have not yet been sufficiently investigated.

Social Media Platforms with visual or auditory AI interactions are also beginning to integrate advertising measures. Snapchat, for example, enables the placement of sponsored links within conversations with the chatbot MyAI (Snapchat 2023). In the audio-based sector, Amazon's Alexa uses product recommendations as a form of advertising but is subject to criticism in terms of transparency and labeling (Pattison Tuohy 2022). To date, image-generating AI systems have primarily relied on subscription models or payment options per image created, while direct advertising integration, for example through brand logos in generated content, has not yet been implemented.

Overall, monetization through advertising in AI applications is still relatively in its infancy, but there is increasing interest on the part of platform operators in testing new advertising formats and further expanding the commercial potential of these technologies.

Theoretical framework: Key success factors for advertising in AI tools

To identify the success factors for advertising in AI tools, the first step is to examine which "success mechanisms" have proven successful on established online platforms. The analysis is based on a categorization by platform type: social media, e-commerce, information and communication platforms (Harwardt 2022, p. 105). Social networks enable interaction and content sharing, while e-commerce platforms support digital commerce. Information platforms serve to provide knowledge, and communication platforms facilitate the exchange between users. By comparing these platforms, key success factors can be derived that can serve as a basis for advertising integration in AI tools.

SUCCESS FACTORS FOR ADVERTISING ON SOCIAL MEDIA PLATFORMS

Successful advertising on social media is based on personalization, authenticity, interactivity, emotionalization, appealing design and consistency. Users expect individually tailored content that addresses relevant needs (Smith 2024, p. 1-2). Authentic communication, especially by influencers, strengthens trust and brand loyalty (Geyser 2024, p. 3). Interactive elements enable direct customer contact and promote engagement (Bozkurt et al. 2024, p. 536). Emotional storytelling increases virality and strengthens the connection to the brand (Sathyanarayana Gowda and Archana 2024, p. 4392). Visually appealing content stands out in the fast-paced social media environment (Peng and Bainbridge 2024, p. 36). A consistent posting strategy also ensures reach and credibility (Kumar et al. 2018, p. 20).

SUCCESS FACTORS FOR ADVERTISING ON E-COMMERCE PLATFORMS

Successful advertising on e-commerce platforms is based on data-driven marketing, personalization, experience orientation and emotionalization. Data-driven marketing enables a precise target group approach through the analysis of user data, which optimizes advertising measures and improves the return on investment (Daniels et al. 2024, pp. 10-11). Personalization plays a central role, as customers expect tailor-made shopping experiences. Real-time analyses and hyper-personalization provide them

with relevant offers, which increases their willingness to buy and strengthens long-term customer loyalty (Reza and Merrett 2024, p. 1381). At the same time, care must be taken to ensure that customers do not perceive the use of data as too invasive (Reza and Merrett 2024, pp. 1383-1384). The experience orientation of an online store contributes significantly to the advertising effect. An appealing, user-friendly design, combined with interactive elements and a clear brand message, creates a positive atmosphere (Kumar et al. 2023, pp. 4574-4575). The balance between entertainment and information quality should be maintained in order to convince customers both emotionally and rationally (Kumar et al. 2023, pp. 4574-4575).

SUCCESS FACTORS FOR ADVERTISING ON INFORMATION PLATFORMS

Successful advertising on information platforms is based on simplicity, emotionality, color and targeted search engine marketing. Despite banner blindness, banner advertising on news sites remains relevant (Simonetti and Bigne 2024, p. 16-17) and offers options for links, multimedia content and tracking. To make banner ads effective, complexity should be reduced, as simple ads attract more attention (Pua et al. 2021, p. 211). Emotional motifs, especially with human or animal representations, are more appealing than pure product ads (Pua et al. 2021, p. 216). Colored images also attract more attention than black and white designs (Pua et al. 2021, p. 216). Search engine advertising is also essential and is based on target group identification, keyword relevance and landing page optimization (Fox and Spencer 2006, p. 519). Buyer personas help to personalize ads in a targeted manner by defining the ideal customer profiles (Jansen et al. 2020, p. 15-16). A precise keyword strategy improves the relevance of the ads (Yang et al. 2022, p. 18), while optimized landing pages with suitable content increase the quality rating by search engines and reduce click costs (Ghose and Yang 2009, p. 1609).

SUCCESS FACTORS FOR ADVERTISING ON COMMUNICATION PLATFORMS

Advertising on communication platforms such as messengers and email marketing is based on simplicity and personalization. Messenger services enable fast and direct communication, which is appreciated by users as they offer seamless integration into everyday digital life (Tang and Hew 2020, p. 15). Messenger advertising enables companies to respond directly to customer inquiries, which strengthens brand loyalty and customer satisfaction (Vo and Nguyen 2022, p. 50). A personalized approach, for example through emojis or visual elements, improves the user experience and reduces the perceived disruption of advertising content (Das et al. 2019, p. 154). Advertising on messenger platforms, such as WhatsApp and Discord, is still in the experimental phase. WhatsApp, for example, offers click-to-WhatsApp ads that enable direct chats with companies (WhatsApp 2023), while Discord is testing new forms of advertising, such as "sponsored quests" (Clark 2025) in video games. These innovations demonstrate the possibility of making advertising on communication platforms more creative and less intrusive. Although email marketing is traditionally considered a form of direct marketing, it shares key characteristics with personalized advertising. It remains an essential component of many marketing strategies (Guidoum 2025, p. 456), particularly due to its emphasis on content relevance and audience segmentation (Muminov 2024, p. 40). Precisely tailoring messages to the needs of customers increases engagement, open rates, and responsiveness to promotional offers (Laha 2019, p. 80–81). These mechanisms illustrate how personalized communication, regardless of the

format, can support advertising objectives and provide valuable insights for developing advertising strategies on emerging AI-based communication platforms.

Derivation of success factors for advertising in AI tools

The decision to further research the success factors in connection with AI tools is based on the realization that some factors that are already relevant to the success of other online platforms such as social media, e-commerce and information platforms could also be important for advertising measures on AI tools. These success factors include personalization, emotionalization, simplicity and appearance. These four factors were selected because they have been identified in previous research as central elements for successful advertising on digital platforms. Personalization plays a key role as it allows advertising to be targeted to users' needs and interests, leading to greater interaction and efficiency (Reza and Merrett 2024, p. 1381). Emotionalization has also been recognized as crucial, as emotionally appealing content often has a stronger impact on users and promotes engagement (Pua et al. 2021, p. 216). Simplicity is another important success factor, as overly complex or cluttered advertising can reduce user attention, while clear and concise messages are more effective (Light and Fernbach 2024, pp. 1167-1169). Finally, the appearance of the advertisement, especially through visual elements such as colors and images, contributes to the perception and acceptance of the advertisement (Kumar et al. 2023, pp. 4574-4575).

Figure 1: Derivation of success factors for advertising in AI tools from the literature research

The success factors listed apply not only to traditional advertising platforms, but also to the use of AI tools on information platforms, which are increasingly being used to organize, analyze and generate content. In view of the many possible applications of AI tools, such as the analysis of user behavior on social media or the creation of product recommendations in e-commerce, it seems sensible to transfer these success factors to AI-based advertising. The planned expert interviews and focus groups will examine the extent to which these factors are also effective in the practice of advertising measures on AI tools and which specific challenges and opportunities are associated with them.

Empirical study: Success factors for advertising in AI tools from an expert and user perspective

A mixed-method approach was chosen to investigate the success factors of advertising in AI tools in order to systematically incorporate both the expert and the user perspective. On the one hand, qualitative expert interviews serve to create an initial conceptual foundation, as advertising on AI tools

is a little-established field to date. The interviews make it possible to use practical experience from online marketing to review existing findings from the literature, gain new impetus and identify key success factors in the context of AI advertising. On the other hand, a focus group with actual AI users complements this perspective. The focus here is on the evaluation and relevance of the identified success factors from the user's perspective. The aim is to check whether the experts' assessments match the expectations and perceptions of users and to gain a more comprehensive understanding of the acceptance and criticism of potential forms of advertising.

The combination of both methods thus enables a holistic analysis in which strategically sound assessments from practice are brought together with realistic user expectations (Carter et al. 2014, p. 546). Precisely because advertising in AI tools is a topic that has hardly been researched to date, it is necessary to examine and validate the relevance and viability of potential success factors from different perspectives. The mixed method approach helps to reduce uncertainties in the state of research (Carter et al. 2014, p. 546) by considering both the professional perspective from online marketing and the practical viewpoint of end users. In this way, well-founded, application-oriented results can be achieved that are both theoretically robust and practice-oriented.

Our research follows a qualitative-explorative design that provides valuable insights into the success factors for advertising on AI tools but does not offer representative results for a broader target group. However, the small sample (n= 4 experts, n= 7 end users) limits the generalizability of the results considerably. In addition, the interpretation of the data remains subjective, despite the systematic evaluation according to Mayring. Although the open survey of the variables allows for new perspectives and points of view, it leads to less comparability and consistency. The results are therefore primarily exploratory in nature and tend to serve as a basis for further research.

EXPERT INTERVIEWS

The method of expert interviews was chosen to classify the success factors for advertising on AI tools identified in the literature research, to critically review them and to evaluate their practical relevance. As the subject area has not yet been researched to any great extent, the interviews enable an initial well-founded assessment from a professional perspective. The expertise of the interview partners helps to compare theoretical assumptions with real experiences from online marketing, to gain additional impulses and thus to create a reliable basis for the further investigation - particularly the subsequent user survey.

METHODOLOGICAL APPROACH

The research design is qualitative and explorative. The aim was to use guided expert interviews to gain a deeper understanding of which success factors are relevant for advertising on AI tools from the perspective of online marketing experts. A total of six interviews were conducted with experts (n=4) who were specifically selected based on their professional experience and specializations between May 3, 2024 and May 7, 2024. The sample included people with expertise in areas such as SEO, data analysis, online product marketing and design to integrate different perspectives within online marketing. The interviews were semi-structured and took place during online video conferences. Before the interviews began, a brief, unrecorded clarification of the terms "online platforms" and "AI tools" was conducted

with the participants to ensure a common understanding. Each interview then lasted between ten and twenty minutes, exclusive of the preliminary discussion for term clarification. Mainly open questions were used to give the interviewees space for individual experience reports and assessments. Visual presentations were used to support the interviews, but these were only shown later in order to ensure that the questions could be answered as uninfluenced as possible. The interviews focused on identifying potential success factors for advertising on AI platforms. Variables such as relevance, trust, and format served as a guide; however, they were not operationalized in advance and were collected openly to leave room for new insights. The interviews were recorded with the consent of the participants, then transcribed using the Word transcription function and edited manually. Transcription followed standardized conventions that accounted for speaker abbreviations, emphasis, pauses, corrections, and other relevant elements.

The results were evaluated using qualitative content analysis according to Mayring (Mayring 2022, pp. 130–150). The transcripts were systematically coded and key statements were summarized in an overview table. On this basis, recurring patterns, differences and new perspectives were identified and placed in the overall context. Central quotations were used for illustration. The scientific nature of the procedure was checked according to Mayring's quality criteria for qualitative research: The entire research process was documented transparently (procedural documentation) (Mayring 2022, pp. 142–144), interpretations were compared with existing theories and literature sources (argumentative interpretation validation) (Mayring 2022, pp. 143–145), and a rule-guided procedure with a standardized introduction and systematic question logic was followed (rule-guidedness) (Mayring 2022, pp. 144–146). Proximity to the subject matter was ensured by selecting marketing experts with practical experience. In addition, the interview results were fed back to the participants for validation (communicative validation) (Mayring 2022, pp. 146–148), and methodological triangulation was achieved by including different professional perspectives (Carter et al. 2014, p. 546).

RESULTS

The content analysis of the expert interviews shows that various success factors must be considered in order to meaningfully integrate advertising measures into AI tools. The interviews confirm that the success factors identified in the literature research - such as personalization and simplicity - are also of great importance in practice. Furthermore, additional factors were named that should be included in the focus group discussion: Interactivity, contextuality, multimodality, platform relevance, a cross-platform strategy and transparency. In particular, the experts emphasized the importance of personalization to ensure the relevance of advertising for consumers. This applies above all to the use of data and AI tools to deliver tailored advertising. At the same time, simplicity was emphasized as crucial in order not to overwhelm consumers, as they are primarily looking to absorb information and not to process complex advertising messages.

Aspects such as interactivity and contextuality were also emphasized. Interactivity means that advertising measures can react to changes during the conversation or to customer inquiries, which leads to stronger user loyalty. Contextuality ensures that advertising measures match the user's current search query, which increases the relevance and effectiveness of the advertising. Multimodality, i.e. the combination of text, image and sound, was also cited as an important factor in increasing the impact of advertising. However, the use of sound should be carefully considered, as it can also be perceived as

distracting. In addition, platform relevance was considered important to ensure that advertising measures reach the right target group on the relevant AI tool. A cross-platform strategy was recommended to increase the effectiveness of multichannel marketing campaigns through recognition and retargeting.

Overall, the interviews conducted underline the complexity of advertising integration on AI tools and make it clear that a large number of influencing factors need to be taken into account. These results form the basis for the subsequent focus group discussion, which will explore the identified factors in greater depth.

FOCUS GROUP DISCUSSION ("USER")

The focus group discussion method was chosen to validate the success factors for advertising on AI platforms identified in the literature and the expert interviews from the perspective of the end user. The topic of advertising on AI tools is still under-researched, which is why it is particularly valuable to include the assessments of actual users. While expert interviews provide important insights from the professional perspective, the end-user perspective is essential to get a complete picture of the relevance and acceptance of advertising measures on AI platforms. End users are the main target group for these technologies, and their preferences as well as their critical evaluations can significantly contribute to verifying and further developing the practical relevance of theoretical assumptions and expert assessments.

The aim of the focus group is to determine which success factors for advertising on AI tools are actually important from the end users' point of view and how these matches or differ from the factors identified in the expert interviews. In particular, the following questions are to be answered:

1. Which success factors for advertising on AI tools are relevant for end users?
2. Do the experts' assessments match the end users' preferences?

By including the user perspective, it is possible to expand and deepen the knowledge previously gained from specialist literature and experts with practical, user-oriented insights. This combination of theoretical and practical perspectives helps to develop a more comprehensive understanding of the success factors and thus create the basis for further research and practice-oriented recommendations.

METHODOLOGICAL APPROACH

The research design of this thesis is qualitative and explorative. The aim was to conduct a focus group discussion to gain a deeper understanding of which success factors are relevant for advertising on AI platforms from the perspective of end users of AI tools. The focus group consisted of seven participants (n = 7). The selection deliberately included individuals from different age groups, educational backgrounds and professions in order to ensure varying levels of familiarity with AI tools. This heterogeneity was intended to integrate diverse perspectives on the use and perception of AI-powered advertising. However, it is important to emphasize that despite the diverse selection of participants, no claim is made to representativeness. The composition of the group aims to reflect a broad diversity of opinions within the users of AI tools without aiming for a statistically representative sample. The focus

group was conducted in person to encourage a lively discussion. The moderator ensured that all participants had their say and steered the discussion in a targeted manner to explore the relevant topics in greater depth. The session was structured, with the discussion divided into two main parts: Promotional activities on AI chat platforms and on AI voice assistants. After a short presentation on each topic, participants noted their thoughts individually on data sheets provided before discussing their views as a group. This structure allowed participants to formulate their opinions without outside influence, while utilizing the collective insights of the group. The discussion was recorded, and the recordings were then transcribed and analyzed qualitatively. The analysis was carried out using qualitative content analysis according to Mayring (2016), whereby the transcripts were coded and summarized in an overview table to identify central patterns, differences and similarities. The participants' individual data sheets were also taken into account in order to include personal preferences and additional perspectives in the analysis.

The scientific nature of the procedure was ensured by applying Mayring's quality criteria for qualitative research: The entire process was documented transparently (procedural documentation) (Mayring 2016, pp. 144-145), the interpretations were compared with existing theories and literature sources (argumentative interpretation validation) (Mayring 2016, p. 145), and a structured, rule-guided procedure was followed (rule-guidedness) (Mayring 2016, p. 145). The selection of participants who already had experience with the use of AI tools ensured proximity to the research topic. To increase the validity of the results, the discussion results were communicated with the participants and fed back for validation (communicative validation) (Mayring 2016, p. 147). In addition, methodological triangulation was achieved by including different perspectives and task formats in order to underpin the results and ensure scientific quality.

RESULTS

The focus group particularly emphasized the importance of **contextuality** and **personalization**. Participants emphasized that advertising measures should be both thematically relevant to the current search query and tailored to individual interests and previous interactions. Some participants found personalization particularly important and gave a personal example in which they would consume advertising about content related to their interest in soccer regardless of the search query. However, the discussion on personalization revealed differing views: Some participants found personalized advertising helpful and relevant as it is tailored to their specific interests, while others perceived it as intrusive, especially when the personalization was based on unconsciously shared personal data.

Another key issue was the **appearance** of the advertising, especially in the text-based AI tools. The participants preferred a balanced combination of text and visual elements that made the advertising more appealing and easier to understand. This revealed a certain contradiction: on the one hand, the participants preferred images, while on the other hand, advertising measures that are strongly integrated into the environment were perceived as less intrusive and more effective. This opinion is in line with research on banner blindness, which shows that classic advertising is often ignored (Simonetti et. al. 2024, p.20) .

The discussion on **interactivity** made it clear that the possibility of reacting directly to advertising messages or requesting additional information was rated positively by the participants. According to

studies, interactive advertising on platforms, such as websites, mobile apps, or interactive TV, can enhance customer loyalty and increase user interaction (Giombi et al. 2022, p. 18).

In terms of **transparency**, the participants expressed mixed opinions. While they generally welcomed the labeling of advertising, some felt that it was not absolutely necessary to label advertising as such, particularly in the case of audio-based AI tools. A clear majority of participants agreed that it is positive when it is explained why an advertisement is displayed, but some felt more put off by the disclosure of retargeting measures or the explicit labeling of advertisements.

The **simplicity** of advertising measures, primarily in terms of the accessibility and comprehensibility of information, was also emphasized. In the case of text-based AI tools, it was pointed out that visual elements can convey important information more effectively than text-only ads. The importance of a clear call-to-action (CTA), especially for audio-based advertising, was emphasized by several participants in order to clearly signal to users' what action is expected next.

In summary, the focus group confirmed the key success factors such as personalization, contextuality, transparency and simplicity. However, the discussion also showed that different user groups have different preferences and concerns regarding the perception of advertising in AI tools, primarily in relation to the use of personal data and the perception of advertising as intrusive. The results from the focus group complement the expert interviews and provide valuable insights into the practical requirements and wishes of end users about advertising on AI tools.

Derivation of a utility model to prioritize the success factors in AI tools

The results show many similarities, but also some striking differences in the relevance of the success factors for the introduction of advertising on AI tools. The experts emphasized technological and functional criteria, while the focus groups focused more on user experience and emotional appeal. The relevance assessment was carried out systematically using a utility analysis to ensure that the assessments of the various success factors are transparent and comprehensible (Son et al. 2025, p. 132). Three central criteria are used here:

1. **Agreement between expert and focus group opinion:** Success factors that are considered particularly important by both experts and the focus group have a higher priority.
2. **Negative perception in case of absence:** Factors whose absence elicits particularly negative reactions from the focus group are also weighted higher.
3. **Breadth and depth of discussion:** Success factors that were discussed both broadly (mentioned by many people) and in depth (discussed in detail) are given a higher priority.

The first criterion is considered particularly important, as it reflects the agreement between experts and end users, which is crucial for the subsequent implementation of advertising on AI tools. The other criteria aim to better reflect the user perspective, as the (non-representative!) focus group discussions can provide a deeper insight into the actual perceptions and needs of end users.

The weighting of the three criteria within the utility value analysis was chosen in such a way that it enables a balanced integration of expert opinions and user perspectives. The criterion "Agreement between expert and focus group opinion" was given the highest weighting of 60 percent, as a consensus between these two central perspectives is considered a particularly reliable indicator of the relevance of a success factor. Such agreement increases the probability that a factor is both strategically relevant and can be implemented in practice - and therefore also meets with acceptance in the implementation process. The two other criteria were weighted at 20 percent each in order to include additional qualitative aspects of user perception without overemphasizing the influence of the focus group opinion. This distribution ensures that critical aspects such as user sensitivity or intensity of discussion are considered without undermining the overarching objective of the analysis - an evaluation that is as coherent and practice-oriented as possible. Based on these considerations, the following formula is used to calculate the overall Score per factor. For example, the total AI Advertising Relevance Score (AARS) for factor 3 ("Interactivity"): Achieved value of criteria 1 * 0.6 + achieved value of criteria 2 * 0.20 + achieved value of criteria 3 * 0.20 = **3x 0.60 + 3x 0.20 +3x 0.20 = 2.8**

Factor		Agreement: Expert/ focus group opinion (60%) Score 1	Negative perception in case of absence (20%) Score 2	Breadth/ depth of discussion (20%) Score 3	**AI Advertising Relevance Score (AARS)** **Total Score**
Personalization		3	3	3	**3**
Contextualization		3	3	3	**3**
Interactivity		3	3	2	**2.8**
Simplicity		3	1	2	**2.4**
Appearance (Native Ads)		2	2	3	**2.2**
Transparency		2	2	3	**2.2**
Multimodality		2	2	2	**2**
Emotionalization		2	1	1	**1.6**
Cross-platform strategy		2	1	1	**1.6**
Real-time customization		2	1	1	**1.6**

Table 1: Evaluation of the benefit analysis

Based on the utility analysis and the criteria described, an overall rating could be determined for each success factor (AI Advertising Relevance Score). The results show that personalization and contextuality were identified as particularly important success factors, as they were given the highest priority in both the expert interviews and the focus group discussions and performed very well in all evaluation dimensions. Interactivity was also rated as very relevant, but this factor scored slightly lower in terms of the depth and breadth of the discussion. Other factors such as appearance, simplicity and transparency were considered moderately important. They showed varying strengths in the categories, particularly in the breadth of discussion, where these factors were mentioned widely and frequently.

The factors multimodality, emotionalization, platform-specific strategies and real-time customization received lower ratings and were in the middle of the overall assessment.

Overall, the utility analysis provides a clear picture of the priorities for the successful implementation of advertising on AI tools. Both the experts' perspectives and the end users' experiences and expectations are therefore considered and incorporated into the framework for designing advertising on AI tools.

Critical appraisal

Although the success criteria offer a practical orientation for the creation of advertising measures on AI platforms, there are methodological limitations. The still low market penetration of AI advertising makes empirical validation difficult. In addition, data protection and ethical implications are key challenges that will need to be clarified in the future in the context of jurisdiction. The research also has several methodological and theoretical limitations that could influence the interpretation of the results and need to be critically scrutinized. A key problem here is that none of the experts surveyed had previously seen advertising in AI tools, as the dissemination of advertising on AI tools was not yet established at the time. The experts therefore had to refer exclusively to one specific example, which could limit the objectivity of the results. Budgetary and organizational limitations also restricted the implementation, especially of the focus group. This impairs the generalizability of the results. Technical challenges in visualization, especially with image-based AI tools, also made comprehensive analysis more difficult. As the tested image generators were unable to implement queries adequately, the discussion focused on audio and text-based examples, which limited comparability. Overall, the results should be interpreted with caution due to these limitations. Further research at a later stage and on a larger scale is needed to validate the results and check their applicability in different contexts.

Outlook

It should be noted, however, that the topic of advertising on AI tools opens a wide range of further research opportunities in different directions. For example, it could be worthwhile to explore measures that increase trust in AI tools, such as certification marks or labeling. A study could provide further information on how advertising measures should be labeled in order to be perceived as relevant. The question also arises as to which type of AI tool - whether audio-based, text-based or image-based - is best able to implement user-oriented advertising measures. Text-based AI tools currently offer the most extensive possibilities. With regard to the graphic design of advertising measures on AI tools, the question also arises as to which end devices they are consumed on and to what extent the advertising content needs to be adapted to different devices. The adaptation of advertising measures to the screen size is particularly important for the perception of advertising. Should the design of advertising measures on AI tools develop further, it is of interest which criteria decide which advertising measure is played and how the underlying algorithm is structured. Furthermore, the increasing legal regulation of AI tools requires discussion about the trade-off between security and further development.

In conclusion, it can be said that the feasibility of advertising in AI tools depends very much on the further technological development of these platforms. Nevertheless, this paper provides a useful basis for future research efforts based on it and facilitates orientation for marketers at the interface of AI and advertising.

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