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NEGATIVE ASPECTS OF THE USE OF ARTIFICIAL INTELLIGENCE (AI) IN MARKETING

The subject of the research is the negative aspects of the use of Artificial Intelligence (AI) in marketing. This includes various issues and challenges associated with the application of AI in marketing strategies, campaigns, and consumer interactions. The object of the research is to examine the specific areas and phenomena related to AI in marketing that have negative consequences and to figure out how AI use in marketing may influence on customer attitude. The goals of the research are to identify and analyze the negative implications of AI in marketing (1); understand the impact of AI on various aspects of marketing, including consumer trust and privacy (2); evaluate the ethical and societal consequences of AI use in marketing (3); offer insights and recommendations for mitigating the negative aspects and promoting responsible AI integration in marketing strategies (4). To fulfil the objectives, theoretical information was collected and field research was conducted: a survey and a focus group.

Keywords: *AI in marketing, advertising fraud risks, consumer manipulation, security in AI marketing, data privacy concerns, consumer attitude*

In general, the following issues of the application of AI by private companies exist in today's economic space:

Unemployment. A recent report from the Organisation for Economic Co-operation and Development (OECD) warns that 27 % of jobs in developed countries could be taken over by artificial intelligence (AI). Additionally, a survey of 800 companies conducted by the World Bank found that 75 % of them plan to incorporate AI into their operations within the next five years, potentially resulting in the loss of up to 26 million jobs. There's a common idea that as AI takes over certain tasks, new jobs will emerge to manage and support AI systems. While this concept envisions a future where technology handles routine work, allowing people to focus on creative endeavors, it's important to assess the current situation. It's clear that if control over AI remains concentrated in the hands of a single entity or a small group of individuals, there's a risk that society could become more unequal and impoverished. However, whether we should consider the possibility of allowing AI to govern itself is a good question [9–12].

Decreasing quality of responses. It's only been a little time since revolutionary chatbots appeared, but they have already established themselves as the "yellow press". Many have read fake news on the Internet and then spread in the society. In the absence of any sense of humor, algorithms seem too gullible to believe a single comment or news article without understanding the broader context. The best example took place when a user asked Bing Chat about whether Google had closed its neural network. It answered that it really had, incorrectly quoting Windows Central material, as well as referring to a comment on Hacker News in which someone joked about it, and someone else used ChatGPT to write fake news about this event. This situation seems ridiculous, but potentially has serious consequences. Chatbots cannot assess the truthfulness of information, distinguish a joke from a serious message, blind parts of information into one text. Together with people's excessive trust in artificial intelligence, this plays against the users themselves [15].

AI bias. Since AI algorithms are built by humans, they can have built-in bias by those who either intentionally or inadvertently introduce them into the algorithm. If AI algorithms are built with a bias or the data in the training sets they are given to learn from is biassed, they will produce results that are biassed. This reality could lead to unintended consequences like the ones we have seen with discriminatory recruiting algorithms and Microsoft's Twitter chatbot that became racist. As companies build AI algorithms, they need to be developed and trained responsibly. Typical AI failure scenarios include: *Bias* (1): This arises when training data doesn't represent the real world, leading to inaccurate AI predictions and decisions. Biased data results in unfair and discriminatory AI behavior, with variations like algorithmic bias, dataset bias, and cognitive bias. *Underfitting and Overfitting* (2): Overfitting happens when an AI model is overly complex and memorizes training data, performing poorly with new data. Underfitting occurs when the model is too simplistic, lacking accuracy. *Data Poisoning* (3): This involves attackers manipulating training data to influence AI model predictions, potentially leading to inaccurate outcomes. *Adversarial Attacks* (4): Attackers introduce specific inputs to deceive AI models into making

false predictions, posing security concerns. *Explainability* (5): The ability to understand how an AI model produces predictions is vital. Lack of explainability can hinder trust and adoption. Mitigating bias is essential for marketers who want to work with the best possible data. Eliminating it will forever be a moving target, a goal to pursue but not necessarily achieve [2].

Accelerated Hacking. Artificial intelligence increases the speed of what can be accomplished and in many cases, it exceeds our ability as humans to follow along. With automation, nefarious acts such as phishing, delivery of viruses to software and taking advantage of AI systems because of the way they see the world, might be difficult for humans to uncover until there is a real quagmire to deal with. Using AI, cybercriminals can remain dormant and undetected within a company's network for extended periods, during which time they can set up back doors to an organisation's critical infrastructure. Then, once ready to launch an attack against the wider business, they can eavesdrop on meetings, extract data, spread malicious software, create privileged accounts to access other systems and/or install ransomware.

Some key methods cybercriminals use to hack into companies' networks with AI include AI-supported password-guessing and CAPTCHA-cracking, Generative Adversarial Networks (GANs), human impersonation on social networking platforms, and ML-enabled penetration testing tools. Additionally, hackers are using AI to create fake fingerprints or voice recordings to trick biometric systems. AI platforms also enable scammers to improve their skills in building fake websites. For example, ChatGPT is capable of producing code and instructions that will make it easier for bad actors to quickly build websites that may be used to mislead customers and target businesses [6–8].

Personal data analysis. AI platforms are trained on large datasets comprising all and any information published online in the years so far. This includes data from various sources such as search engines, social media platforms, chatbots, online forms, and more. AI algorithms process all this collected data and help the machine learn human language, generate insights, and make logical predictions. AI platforms train on new databases from search queries and responses after launch. Over the last couple of months, companies as varied as Twitter, or X, Microsoft, Instacart, Meta, and Zoom have rushed to update their terms of service and/or privacy policies to allow the collection of information and content from people and customers as data to train generative artificial intelligence models. Tweets, web searches and apparently even grocery shopping are now an opportunity for companies to build more predictive tools like Bard and ChatGPT, which is owned by OpenAI and receives considerable backing from Microsoft. Zoom, after a public upset at the idea of video calls being fed to a large language model used to train AI, is the only company to subsequently change its updated use policy to say explicitly that user videos would not be used this way. Even when companies do disclose what they've changed in an update to a Terms agreement or Privacy Policy that covers the use of data for AI, they're often vague. Microsoft's updated Terms, for which it highlighted changes going into effect Sept. 30, added a new five-point section on AI Services. Meta, formerly known as Facebook, updated its privacy policy in June. The policy now lets users know that "your activity and information you provide on our products and services" is used to train its generative AI models. So, everything from status updates to Instagram photos to prompts can now be part of Meta's AI training data sets. The company puts the responsibility on the user to prevent its training data from sucking up personal information that a person may not want to be used to teach an AI tool how better to answer prompts, saying people should "be mindful" about what they say in prompts [1; 12–14].

Content generation. Negative aspects of AI-generated content encompass concerns about quality, accuracy, and the lack of human creativity. AI-generated content often lacks depth and nuance, which can result in inaccuracies and damage credibility. Ethical issues emerge due to the perpetuation of biases in training data, potentially leading to discriminatory content. There are also concerns about plagiarism and copyright infringement. The widespread use of AI for content creation may lead to job displacement, reducing human connection and engagement. Security risks, such as malicious content generation, pose significant threats. It is also incredibly important that at this stage neural networks cannot create content that is unique in the full sense of the word. All the content generated by AI is created on the basis of visual or any other content already created by someone. That is, again, turning to the topic of low information quality. If companies start abusing artificial content generation, then soon the Internet will be flooded with low-quality content, which can greatly discard AI in the field of content generation. These issues underscore the importance of responsible and ethical AI-generated content use.

Natural language processing (NLP). The technology uses algorithms and mathematical models to analyse, interpret, and generate human language. There are some issues, associated with this technology: *Deepfakes and Impersonation:* Deepfakes, typically associated with manipulated videos and images,

involve text-based impersonation. Using NLP models, individuals can create text that mimics someone else's writing style, making it appear as if a particular person authored the content. This can be used for identity theft, character assassination, or to disseminate false statements attributed to a specific individual. Victims of text-based deepfakes can experience reputational damage, emotional distress, and loss of trust. Deepfakes remain a growing concern for the crypto industry, with 70 % of companies noting their increasing popularity among fraudsters. In 2023, the number of deepfakes in the crypto industry increased by 128 % compared to 2022. Recent incidents involving AI-generated deepfakes have garnered significant attention among celebrities and content creators. A couple of celebrities warned about unauthorized AI-generated versions of themselves being used to promote products they have no affiliation with, sparking concerns about the misuse of AI in digital media [3–5].

Field research. In our research, a survey was conducted to identify how the use of AI in marketing might affect customer attitudes towards the product and companies using AI for promotion. The sample consisted of 90 people aged between 16 and 67. The survey consisted of 13 open-ended and closed-ended questions, in which respondents were asked to rate their attitude to the use of AI in marketing (this question was asked twice – at the beginning and at the end of the survey) on a scale, to rate their attitude to the use of AI solutions in marketing using real-life examples, and to offer recommendations for regulating AI in marketing and sales. As a result, we made the following conclusions: respondents are quite loyal to the use of AI in marketing for creative visual and text solutions (73 % of people answered that the use of AI for advertising campaign design would not affect their attitude to the company), however, in case of more critical situations, respondents would prefer human help rather than AI to a voice model (91 %). In a situation where AI is used not just to generate content, but also to model a non-existent blogger, 34 % of people said their attitude would get worse, 26 % said it would get much worse, and 34 % said their attitude would not change in any way. Roughly equal proportions of respondents are and are not concerned about the inappropriate use of AI in marketing (44 % and 47 % correspondingly). Note also that when asked about attitudes towards the use of AI in marketing decisions at the beginning and end of the survey, there were different answers: in the first question, the largest number of respondents – 27 % – rated their attitude at 10, while in the second similar question, the largest number of respondents (22 %) changed their mind and chose a score of 5. 80 % of respondents were confident that the use of AI for marketing and sales should be legally restricted.

It was also revealed in the open answers and during the focus group process that the greatest fear is the use of personal data for AI-based solutions. Respondents expressed the opinion that AI issues in the Republic of Belarus should be regulated by a special institute and subject to a strict legal framework; content created with the help of AI should have special labelling; and it is necessary to develop mechanisms to combat AI fraudsters.

In connection with these answers, the studied problems and existing international experience, we offer the following recommendations for working with AI in marketing and sales in the Republic of Belarus:

1. Create an organisation specialising in AI solutions, AI fraud and legal regulation of AI in media space;
2. Develop a legal framework regulating the use of personal data for AI training;
3. Create a labelling system for AI-generated content;
4. Adapt the Law on Copyright, the Law on Advertising and the Law on Personal Data Protection to the problematic use of AI solutions.

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