Generation Z's Trust Toward Artificial Intelligence: Attitudes and Opinions

Anna Dewalska-Opitek[1], Olgierd Witczak[2], Agnieszka Szostak[3],
Marek Dziura[4], Bożena Wroniszewska-Drabek[5] *

Abstract:

Purpose: The article explores the attitudes and opinions of Generation Z (born 1995-2009) toward artificial intelligence (AI), emphasising their unique relationship with technology.
Design/Methodology/Approach: The nature of the research was exploratory; three focus groups were organized, including a total of 34 participants, with each group containing between 8 and 12 individuals. The sample included both Gen Z's males and females from various nationalities. They were either university students (Erasmus or first cycle program) or high school students (International Baccalaureate Program).
Findings: The study uncovers familiarity with AI, sentiment variations, perceived benefits, and concerns Gen Z representatives. Results highlight positive sentiments about AI's potential and apprehensions about privacy and ethical challenges.
Practical Implications: The results shed light on the components of Gen Z consumers' attitudes toward AI, revealing its dimensions and challenges. By addressing the perceived drawbacks and key trust issues identified by the participants, companies can better connect with this increasingly influential generation, which is drawing significant attention from researchers and practitioners and is set to become a dominant force in the future.
Originality/Value: AI is quickly becoming a crucial field of scientific study, with its importance set to increase significantly in the coming years. As technological progress speeds up, AI's potential applications are expanding across various sectors. Additionally, as

[1]*Ph.D., Anna Dewalska-Opitek, Department of Organisational Relationship Management, University of Economics in Katowice, Poland, ORCID: 0000-0002-1269-4738, e-mail: a.dewalska-opitek@ue.katowice.pl;*
[2]*Ph.D., Olgierd Witczak, Department of Organisational Relationship Management, University of Economics in Katowice, Poland, ORCID: 0000-0001-6371-0833, e-mail: olgierd.witczak@ue.katowice.pl;*
[3]*MA Agnieszka Szostak, Academy of Silesia, Faculty of Social Sciences and Humanities, Poland, ORCID: 0009-0001-1084-1837, e-mail: agnieszka.szostak@akademiaslaska.pl;*
[4]*Ph.D., Marek Dziura, Departnemt of Economisc and Organization of Enterpises, Cracow University of Economics, Poland, ORCID: 0000-0002-4889-2883, e-mail: dziuram@uek.krakow.pl;*
[5]*Ph.D., Institute of Management and Quality Sciences, Humanitas University, Poland, ORCID: 0000- 0003-4330-0874,e-mail: bozena.wroniszewska@humanitas.edu.pl;*
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AI systems are more deeply integrated into daily life, thorough research is urgently needed to tackle key challenges like ethics, transparency, and bias.

1. Introduction

People born in 1995-2009 (Generation Z/ Gen Z) embody a unique set of values and characteristics rooted in their relationship with technology. This generation, born in a digital era, is deeply intertwined with Information and Communications Technology (ICT), demonstrating proficiency and comfort with various digital platforms and technologies. Their attitudes and behaviours underscore the pivotal role of recent technology in shaping their worldview, aspirations, and interactions in both personal and professional spheres (Dewalska-Opitek, Witczak, 2023, p. 54-56).

Early exposure and familiarity with technology led to a natural inclination towards advanced technological fields like AI (Zimerman, 2012, p. 174-175). Many educational institutions emphasise science, technology, engineering, and mathematics fields, including AI and computer science, in their curricula. Enhanced educational focus and resources in AI-related areas stimulate interest and expertise among Generation Z students.

The AI field is driven by innovation and problem-solving, making it attractive to a generation inclined towards creating change (Seemiller and Grace, 2016, p. 22-23). Gen Z has strongly emphasised ethical considerations, social justice, and a desire for fairness and trust (Kuzmina *et al.,* 2023). Addressing ethical concerns related to bias, fairness, and transparency becomes crucial as AI technologies become more integrated into society.

Gen Z is globally connected, values collaboration, and is open to diverse perspectives. For AI research, a global viewpoint and an interdisciplinary perspective are prerequisites and aligned with the characteristics of Generation Z (Howe and Strauss, 2000). So, the combination of Generation Z's upbringing, values, educational emphasis, and societal trends predispose these people towards the AI research area (Norena-Chavez and Thalassinos, 2023).

Despite growing attention to AI from academia, industry, and public entities, a universally accepted definition of AI remains elusive. Various perspectives have likened AI to human cognition or general intelligence. Some definitions emphasize

machines mimicking human behaviours or executing tasks requiring intelligence. Defining human intelligence itself is challenging, and though efforts have been made to quantify it, intelligence's inherently subjective and abstract nature resists precise definitions. Consequently, definitions in research, policy, or market analyses often remain ambiguous, setting aspirational goals rather than clear research criteria (Samoili *et al.,* 2020, p. 7).

Nevertheless, one of the most frequently cited definitions of artificial intelligence is from J. McCarthy, who is widely recognized as one of the field's founders. McCarthy defined AI as *the science and engineering of making intelligent machines, especially intelligent computer programs* (McCarthy *et al.,* 2006, p. 12). This definition captures the essence of AI by emphasizing its focus on creating machines or computer programs that can perform tasks that would typically require human intelligence.

However, the field of AI is vast and has evolved over time, so there are many other definitions and perspectives. P. Wang expanded the AI definition, encompassing its ability to execute cognitive functions (Wang, 2019, p. 26), notably learning and problem-solving, leveraging advancements like machine learning and neural networks (Zawacki-Richter *et al.,* 2019, p. 3).

AI's integration spans various sectors, including business, science, art, and education, aiming to elevate user experiences and operational efficiency. AI applications permeate smart home gadgets, smartphones, and platforms like Google and Siri. While a sizeable portion of the population recognizes AI's presence in their lives, few grasp its underlying concepts, technological intricacies, or potential ethical implications (Ghallab, 2019, p. 4).

Nowadays, people face numerous challenges due to AI's enormous and dynamic development (job disruption and automation, ethical dilemmas, transparency and accountability, data privacy and security, bias and fairness, regulatory and governance issues, economic inequality, etc.). Another crucial problem is trust as an essential factor influencing AI adoption and acceptance, encompassing its rejection (disuse), excessive reliance (misuse), or harmful exploitation for personal gain.

Insufficient trust in a competent technology such as AI can lead to its neglect, resulting in productivity losses and potential misuse. Conversely, excessive trust in a less capable technology might lead to unwarranted reliance and abuse, posing risks such as safety breaches (Hoff and Bashir, 2015, p. 428-429). The unshakable conviction of social scientists that *without trust, society as we know it could not exist* (Schilke *et al.,* 2021, p. 240) seems to be increasingly critical right now.

The phenomenon of trust has been explored and researched in a wide range of disciplines in social sciences (social psychology, economic sociology, economics, management, organizational behaviour, etc.). Trust has been analysed as an element

of social relations being treated as an antecedence of interactions among entities participating in the communication process or market behaviours, as well as a determinant of customer attitudes and opinions.

The article aims to explore Generation Z's trust toward AI, identifying attitudes and opinions by collecting information about customers' perceptions, sentiments, knowledge, utilisation, and predictions of AI. The first part of the article delivers the literature review of trust with challenges toward AI, guidelines on AI trustworthiness, and the cognitive and emotional dimensions of trust toward AI.

The next part describes the focus group interview as a method employed for data collection. In the research results, Gen Zers' experiences with artificial intelligence were presented, as well as information on informants' sentiments and attitudes towards AI, perceived benefits, and drawbacks of using AI, level of trust, and the predicted future of artificial intelligence. The article finishes the discussion of research outcomes, conclusions, and research limitations.

2. Trust Toward Artificial Intelligence – Literature Review

Trust broadly refers to one's willingness to be vulnerable to another entity (Schilke *et al.,* 2021, p. 241) or as a pre-reflective attitude guiding responses to the appearance of routine interaction entities (Bernstein, 2011, p. 406). A cross-disciplinary definition says that trust is "*a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behaviour of another entity*"(Lockey *et al.,* 2021, p. 5464).

To make the trust definition more specific, it is worth quoting one of the most cited definitions of trust in the literature: "*the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party* (Mayer *et al.,* 1995, p. 712).

The quoted definitions explain trust as a relationship between a trustor and a trustee stated in exact circumstances and/or conditions. The relationship is expected to be based on the trustor's assumptions of the trustee's ability to fulfil the trustor's expectations in specific conditions of each other's interdependencies affected by a wide range of environmental and individual determinants (Taddeo, 2009, p. 25).

So, trust is a specific process of building a relationship between two vulnerable entities and is determined by particularised and generalised phenomena of trust. Particular trust "*is a specific situation/relationship where trustors attempt to predict whether it will pay off for the trustee to encapsulate their interests and be high in trustworthiness and believe the trustee will be motivated not to behave opportunistically and to instead honour that trust*" (Schilke *et al.,* 2021, p. 243).

Generalised trust refers to features determined by the culture, process of socialisation and private collected experience visible in dispositional tendencies to trust others, confidence in people's goodwill, a default belief in the benign nature of mankind, or a moral obligation to assume that others are trustworthy (Schilke *et al.,* 2021, p. 243). This approach to trust comes from psychologists and sociologists who pay attention to trustor and trustee relationships as individual or human being group objects.

Nevertheless, the dyad relationship is not limited to the human being trustor and trustee, but the trustee could be another entity, object, situation, system, etc.; so, the object of trust does not have to be a human being but an organization, technology, or another inanimate phenomenon. In that sense, trust "*is an attitude of confident expectation in a particular situation of risk that one's vulnerabilities will not be exploited*" (Corritorea *et al.,* 2003, p. 740) or "*a belief in the system characteristics, specifically belief in the competence, dependability and security of the system, under conditions of risk*" (Kini and Choobineh, 1998, p. 52).

The vital concepts for trust are vulnerability, risk, and uncertainty, as they are central to explaining the complexities of trust phenomena, especially in emerging technologies like artificial intelligence (AI). Vulnerability refers to the potential for harm or negative outcomes when trust is misplaced or exploited (Mayer *et al.,* 1995, p. 712). Trusting AI systems inherently carries risks due to their reliance on data, algorithms, and human-machine interactions. A misplaced trust in AI can lead to privacy breaches, biased decisions, or system failures. Risk pertains to the quantifiable likelihood of specific outcomes or events when placing trust in an entity or system.

Trust decisions in AI involve assessing the potential risks associated with data misuse, algorithmic errors, or unintended consequences. Managing these risks requires transparency, accountability, and robust governance mechanisms (Bostrom and Yudkowsky, 2014, p. 328). Uncertainty refers to the unknown factors or variables that make it difficult to predict outcomes or assess the reliability of an entity or system.

Trust in AI is often challenged by uncertainties related to algorithmic complexity, data quality, and the dynamic nature of technology. Addressing uncertainty requires ongoing monitoring, evaluation, and adaptation of AI systems to ensure their trustworthiness (Mittelstadt *et al.,* 2016, p. 2-4).

In this paper, trust toward artificial intelligence is defined as the confidence and reliance vulnerable individuals (truster) place in AI (trustee) to perform tasks, make decisions, or provide information without causing harm or error with unnecessary risk and uncertainty avoidance by respecting data privacy and operating within ethical and legal boundaries. Risk and uncertainty are general challenges in building and maintaining trust in AI (Lockey *et al.,* 2021, p. 5464).

Addressing these general challenges requires a multifaceted approach that combines technical safeguards, ethical considerations, and informed decision-making processes. That leads to the five common challenges areas identified in the research results of AI trust (Lockey *et al.,* 2021, p. 5465-67; Glikson, Woolley, 2020, p. 631-635; Pitardi, Marriott, 2021, p. 4; Kizilcec, 2016, p. 2392; Verberne *et al.,* 2015, p. 899; Corritorea *et al.,* 2003, p. 748-752):

1) transparency/tangibility - comprehension problem of how AI works (ability to understand how decisions are made; physical and virtual presence);
2) accuracy and reliability - flawed results make prejudice, disparity, and damage hindering AI credibility (inaccurate/harmful outcomes and unfair/discriminatory treatment);
3) automation - machines capability to complete tasks without direct human involvement (loss of dignity: humans as data points; de-contextualization; loss of human engagement: over-reliance and deskilling);
4) anthropomorphism - the inclusion of human-like characteristics into an AI (manipulation through identification; over-reliance and over-sharing);
5) mass data extraction - concerns about big data extraction and control over personal data (personal data capture and loss of privacy; inappropriate re-identification and use of personal data; loss of control).

Identified and described areas of AI's trust are a background for the manifesto of the European Commission, where detailed guidelines on what should be required from AI models to make AI trustworthy – see Table 1.

Table 1. European Union guidelines for trustworthy AI models

Key Requirements	Factors
Human agency and oversight	Foster fundamental human rights Support users' agency Enable human oversight
Technical robustness and safety	Resilience to attack and security Fallback plan and general safety A prominent level of accuracy Reliability Reproducibility
Privacy and data governance	Ensure privacy and data protection Ensure quality and integrity of data Establish data access protocols
Transparency	High-standard documentation Technical explainability Adaptable user-centred explainability Make AI systems identifiable as non-human
Diversity, non-discrimination, fairness	Avoid unfair bias Encourage accessibility and universal design Solicit regular feedback from stakeholders
Societal and environmental	Encourage sustainable and eco-friendly AI

well-being	Assess the impact on individuals
	Assess the impact on society and democracy
Accountability	Auditability of algorithms/data/design
	Minimize and report negative impacts
	Acknowledge and evaluate trade-offs
	Ensure redress

Source: *Own elaboration based on Jacovi et al., 2021, p. 628.*

As it was explained, trust toward AI is a relationship between a trustor and AI, and to explore the AI trust phenomenon, all identified challenges, factors, and determinants of trust could be grouped into two dimensions: cognitive (based on rational thinking) and emotional (based on affection) – see Table 2, which impact the truster's behaviour towards AI. Cognition and emotions are located as antecedents of AI trust customer attitudes, and the behavioural dimension is treated as a measurement area of truster toward AI.

Table 2. *The cognitive and emotional dimensions of trust toward AI*

Dimensions	Cognitive	Emotional
Tangibility	Physical presence increases trust: More trust in robotic AI than in virtual AI (Robotic AI). Visual presence increases trust: More trust in virtual AI than in embedded AI (Virtual AI). The effect of awareness on AI use is unclear (Embedded AI).	Physical presence may not only increase liking but also induce fear (Robotic AI) Presence of a "persona" increases liking and emotional trust (Virtual AI). Being unaware of AI use may evoke anger. Positive emotions could be driven by good reputation of a developing firm. (Embedded AI)
Immediacy behaviours	Responsiveness, adaptiveness, and pro-social behaviours increase trust (Robotic AI). Personalization and use of persuasion tactics increase trust (Virtual AI). Personalization improves trust; constant tracking of workers' behaviours may decrease trust (Embedded AI).	Human-like behaviours induce high emotional trust; erroneous robots are liked more than flawless ones (Robotic AI). Human-like behaviours increase trust and liking, yet the effect depends on users' predispositions (Virtual AI).
Transparency	Transparency might increase trust, but the empirical research is scant. (Robotic AI). Transparency of AI reliability and explanations of how algorithm works increase trust (Virtual AI). Transparency of how algorithm works increases trust; especially needed for highly intelligent managerial systems. (Embedded AI).	N/A
Reliability	Low reliability decreases trust, but not always: When robot is perceived as having	N/A

	high machine intelligence, people tend to follow even a faulty robot (Robotic AI). Low reliability mostly decreases trust in laboratory and field studies where the initial trust was very high (Virtual AI). Low reliability significantly decreases trust, and the way to restore trust is difficult and takes time (Embedded AI).	
Task characteristics	In technical tasks the trust is higher than in tasks that require social intelligence (Robotic AI). In technical tasks that require data analysis, trust in AI is higher than in humans (Virtual AI). In tasks that require social intelligence, the trust in humans is higher than in AI; high self-confidence moderates the trust in AI (Embedded AI).	N/A
Anthropomorphism	N/A	Human-likeness mostly increases positive emotions but can also cause discomfort (Robotic AI). Mostly increases trust, but also creates high expectations regarding AI's abilities. Attractiveness and personalization, such as ethnicity or facial similarity to the user, increase trust (Virtual AI).

*Note: * **Robotic AI** - physical robot; **Virtual AI** - virtual robot; **Embedded AI** - a search engine, a GPS map, social media app - users might not be aware of AI existence*
Source: Own elaboration based on: Glikson, Woolley, 2020.

Presented challenges, guidelines for trustworthy AI, as well as cognitive and emotional dimensions of trust towards AI, are areas which could be used in identifying the experiences with artificial intelligence, sentiments and attitudes towards AI, perceived benefits, and drawbacks of using AI, and the predicted future of artificial intelligence delivering the answers how Gen Zer's trust toward AI.

3. Research Methodology

The intention of this study was to identify the Gen Z customers attitudes and opinions towards artificial intelligence. The conducted research enabled us to reveal answers for the following research questions:

RQ 1. To what extent do Gen Zers know and utilise AI in their everyday lives?

RQ 2. *What are the general perceptions and attitudes of Gen Z consumers towards AI?*
RQ 3. *What are their sentiments towards artificial intelligence?*
RQ 4. *To what extent do Gen Z consumer trust AI?*
RQ 5. *What may be the future of AI?*

The nature of the research was exploratory, being conducted in order to determine the nature of the problem, and was not intended to provide conclusive evidence, but rather to obtain a deeper understanding of the problem (Henson and Roberts, 2006, p. 394).

The data collection was accomplished through focus group interviews. They were part of a broader spectrum of Gen Z consumers' behaviour research conducted between March and December 2023 on respondents representing the particular cohort. Nevertheless, the paper presents only a limited extent, i.e., research findings referring to Gen Zers' perception and attitudes towards artificial intelligence.

Three focus groups were conducted, with 34 participants, and each group comprised 8 to 12 individuals. Table 3 illustrates the sample characteristics.

The authors interviewed representatives of the cohort born between 2004 and 2007, i.e., being at the age between 16 and 23 years old, both male and female, representing various nationalities, attending a university (Erasmus or a first cycle program), or a high school (an International Baccalaureate Program), perceiving their economic status as better compared to other consumers at their age.

The sampling method employed can be characterized as purposeful, as described by Miles and Huberman (1994, p. 27). According to Morse (1994, p. 129), purposeful sampling is one of four types of sampling techniques used in qualitative research, alongside nominated, volunteer, and total population samples.

Purposeful sampling is guided by the intention to encompass a range of variations within the phenomenon under study (Coyne, 1997, p. 628). This approach is akin to the type of sampling termed "phenomenal variation" by Sandelowski (1995, pp. 181-182), involving decisions made in advance to ensure representative coverage of variables likely to be significant in understanding how diverse factors configure as a whole.

In the research in question, the authors initially interviewed individuals carrying general knowledge of AI (cognition dimension), whose experiences were deemed typical (i.e., easily accessible AI users). As the study advanced, more specific information was obtained from participants with specialized knowledge (active AI users employing the tool for creating social media content – emotional and behavioural dimensions focus).

Table 3. *Focus groups' sample characteristics (N=34)*

Specification	Sample	Specification	Sample
Gender:		Education level:	
a. Male	15	a. High school	14
b. Female	19	b. University	20
c. Other/ not declared	-		
Age:		Nationality:	
a. 16-17 years	7	a. Australian	1
b. 18-19 years	8	b. British	3
c. 20-21 years	11	c. Chinese	3
d. 22-23 years	8	d. Italian	2
Perceived economic status compared to other consumers of the same age:		e. Korean	7
		f. Lebanon	1
	9	g. Polish	9
a. Definitely better	12	h. Slovak	2
b. Rather better	8	i. Ukrainian	5
c. Neither better nor worse	5	j. Turkish	1
d. Rather worse	-	k. Other	
e. Definitely worse			

Source: *Own elaboration.*

This approach aimed to comprehensively grasp the entire spectrum of experiences and the depth of the phenomena's concept. The outlined process was recommended by Morse (1994, p. 131) and adopted by Coyne (1997, p. 629). According to Guest *et al.* (2006, p. 59), purposive sampling is the most commonly used form of non-probabilistic sampling, and its size typically hinges on the concept of saturation, reaching the point where no latest information or themes emerge in the data. Conducting more than 6 focus group interviews would likely follow similar patterns, with additional interviews not contributing novel information to the research problem.

According to Poovey (1995, p. 84), there are limitations to what statistically rationalized knowledge can achieve. Qualitative research, particularly its competency, directs attention to encompassing both verbal and non-verbal behaviours, delving into nuances, revealing meanings, and navigating the intricacies and challenges (Gephardt, 2004, p. 455).

Focus groups have been applied in prior research related to virtual and augmented reality. In recent years, Kolesnichenko *et al.* (2019, pp. 247-251), Kye *et al.* (2021), Bale *et al.* (2022, pp. 1-13) and Kaur *et al.* (2023, pp. 2-16), explored virtual reality that exists beyond reality. To facilitate comfortable expression of beliefs, opinions, and experiences, Kaur *et al.* (2023, pp, 10-16) opted for a semi-structured interview format. They also crafted a discussion guide encompassing various sections, including introduction questions, inquiries about the study's goals, and a summary of the interview.

In the current examination of Gen Z consumers' perspectives and attitudes towards AI, the researchers utilized semi-structured focus group interviews, organizing the discussions into five distinct parts. Initially, during the introduction, participants were queried about their overall sentiments and attitudes regarding AI (cognition and emotional dimensions).

Subsequently, they were prompted to share their everyday experiences with AI (behavioural dimension). Further inquiries delved into the perceived advantages and disadvantages of employing artificial intelligence. Exploring Gen Zers' trust in AI constituted another focal point of the research. The discussions concluded with summaries and an endeavour to forecast the future of AI.

4. Research findings

4.1 Gen Zers' Experiences with Artificial Intelligence in their Everyday Lives

All the researched participants declared they were acquinted with artificial intelligence, their answers ranged from "*I am somewhat familiar*", to "*I'm quite familiar with AI, having grown up with technology*". They also proclaimed having used AI before. Inquired about the frequency of usage, the study participants mainly replied "*daily*", only few answered "*several times a weeek*".

Asked to indicate what kind of AI apps they were familiar with or/ and they used, the informants mentioned many popular applications, including virtual assistants responding to voice commends, providing information, setting reminders, and controlling smart home devices (e.g.: *Amazon Alexa*, *Apple Siri* or *Google Assistant*), navigation apps analysing real-time traffic data, suggesting optimal routes or estimating arrival times based on historical and current patterns (e.g., *Google Maps*, *Waze* or Polish *Janosik*), and smart home devices, i.e. devices using AI to learn to user preferences and adjust house settings accordingly to optimize energy efficiency (e.g.: smart thermostats – like *Nest*, smart lighting) or smart cameras recognizing faces, detecting motion and providing alerts for security purposes.

A wide variety of AI tools and apps were recognised in terms of media usage. A fierce discussion was caused by the identification of AI in social media. Study participants identified content recommendation algorithms: "*platforms like Facebook, Instagram, Threads, Tik-Tok and X use AI algorithms to analyse our preferences and behaviour, and to recommend personalized content and advertisements*". Respondents also mentioned *Adobe Firefly or Sonix* as AI apps "*generating new content, e.g. animation, music, sound effects or voice conversions to be used in posts and tweets on social media*".

Another media-related AI tool was spotted to be used by Amazon, Google, or Netflix – these platforms use AI algorithms to track user behaviour and provide personalized recommendations for products or content.

One of the most commonly referred to informants' experience with AI was Chat GPT – 3,5 and GPT-4, but also Perplexity AI, or even Google Translate apps used for enhanced search functions, writing texts and summarising or translating into multiple languages.

Respondents assured of full research confidentiality declared that Chat GPT is intensively used for educational purposes, ranging from "inspiration" ("*I often use Chat GPT to find inspirations for my essays*", " *Chat GPT is the first, but not last source of information*") to "the final resort" ("*Chat GPT saved me so many times, when I had a task overload or have just forgotten to submitt a paper or an assignment*", "*I often do my homework at the very last minute, so Chat GPT is a real rescue from possible problems*").

Informants also revealed a wide application of AI in gaming to enhance the overall gaming experience. Firstly, they mentioned voice and gesture recognition allowing players to control characters, issue commands, or interact with the game environment using natural movements and speech ("*Games like Microsoft Kinect, Playstation, Xbox, Nintendo or other VR games give the impression of being inside the game*").

According to the study participants, AI is also employed to control the gaming characters' behaviour, game participation ("*in multiplayer games, bots may fill in when there is not enough of human players*"), a plot of the game ("*planning the strategic response to a player's actions*", "*adopting the game to the players' skills*"), dynamic storytelling ("*some games may change depending on the choices a player has once made*"). A general conclusion was drawn that AI in gaming leads to tailored gaming experiences.

Other areas of experience mentioned by the study participants were of minor importance, like: customer service (chatbots providing customer service, information or guiding users instead of employees), virtual health assistants offering information and answering health-related queries or financial advisors (AI algorithms analysing financial transactions to identify patterns and detect unusual activities, helping in the prevention of fraudulent transactions). The abovementioned examples illustrate the diverse applications of AI in making various aspects of daily life more efficient, convenient, and personalized.

4.2 General Information on Informants' Sentiments and Attitudes Towards Artificial Intelligence

The informants were encouraged to evaluate their overall attitudes towards artificial intelligence, ranging from positive, through neutral, to negative. The statements generally indicated their positive attitudes ("*It is generous*", "*I am optimistic about AI*", "*I like it, or rather I like using it*", "*it brings so much fun, it is also useful*") and fewer neutral ("*it is ok, if you know how to use it*", "*AI may be helpful, but you*

cannot rely on it completely). Nevertheless, some negative attitudes were also verbalised ("*It is scary, especially in terms of privacy – or lack of it, and data protection*").

When ask to give their first thoughts on how AI makes them feel, respondents declared: "*exited and curious*", "*smart*", "*creative*", "*positive - it is dynamic and engaging*", "*excited about the new opportunities and innovations*", "*enthusiastic*", "*thrilled*" or "*fired up*". There were also more moderated (neutral) feelings about AI: "*I feel quite ok about AI*", "*interested*", "*curious what the future of AI brings*", "*reasonably optimistic*", and negative ones: "*frightened*", "*concerned – there is no privacy, we are tracked*", "*it will replace humans one day*".

4.3 Perceived Benefits and Drawbacks of Using Artificial Intelligence

Based on the informants' attitudes, perceived benefits and drawbacks were identified. It is important to notice that individual opinions and perceptions vary and depend on participants' experiences and level of engagement.

In terms of benefits, based on the positive features of AI, they may be grouped into several categories:

➢ AI enhances creativity and innovation – "*AI is a tool that brings about new and innovative solutions to problems*", "*AI tools assist in creative endeavours, such as content creation or design – e.g. on social media, inspire and support users in expressing their creativity in the digital realm*",

➢ AI supports adaptability and flexibility – this technology has the ability to adapt to user preferences and provide flexible solutions, contributing to positive user experiences – "*AI helps with my social media content: text, pictures or video are created fast, and are appealing to my mates*", "*I know there is an algorithm doing this, but I like the content I am offered on Netflix*",

➢ AI increases enjoyment through personalised content – "*AI-driven personalization in technology and services makes users feel valued and catered to*", "*the convenience of personalized recommendations and experiences contributes to a positive sentiment towards AI*", "*Dynamic and adaptive gameplay experiences make gaming more entertaining*",

➢ AI offers empowerment and opportunity - AI education and skill development opportunities make its users feel empowered and optimistic about their future career prospects – "*AI may be a pathway to acquiring valuable skills*",

➢ AI saves time and increases efficiency – " *I work faster*", " *I am more efficient with my assignments*", "*It will help me at work if I find a difficulty or problem to solve*",

➢ Ease of use – " *AI is intuitive – sometimes so intuitive, you do not even notice it*", "I *see the practical benefits of AI in everyday applications, but it's*

important to prioritize user experience and ensure that these technologies are user-friendly and accessible to all."

AI, while offering numerous benefits, also poses certain drawbacks. These drawbacks can be categorized into various areas. Here are some potential AI drawbacks, suggested by the study participants:

> ➢ Privacy Concerns - AI often relies on vast amounts of data, raising concerns about the privacy and security of personal information – "*I'm worried that AI collects so much data about me. It feels like my privacy is at risk, and companies may misuse my personal information*",
> ➢ Bias and Fairness - AI systems can inherit biases present in training data, leading to unfair or discriminatory outcomes – "*I've read about AI algorithms being biased. It's concerning that these biases can impact decisions in areas like hiring or loan approvals*",
> ➢ Job Displacement - automation facilitated by AI can lead to job displacement in certain industries, impacting employment opportunities – "*AI automation is cool, but I'm worried about job security. Will there be enough opportunities for us in the future?*",
> ➢ Overreliance and Dependency - overreliance on AI systems may lead to dependency, potentially affecting critical thinking skills and problem-solving abilities – "AI is great, but I'm concerned that we might become too dependent on it. We need to maintain our ability to think for ourselves",
> ➢ Ethical Dilemmas - AI decisions may raise ethical dilemmas, especially in terms of controlling certain aspects of humans' lives – "*The idea of AI making decisions in healthcare or transportation, i.e. is autonomous cars, is a bit unsettling. We need to be careful about* it",
> ➢ Economic impact - sophisticated AI models can have a substantial impact on customers' spending patterns and purchase intentions, leading to increased consumption – "*I have heard that AI can manipulate us, showing a good or a service in and convincing advertisement, that you eventually feel the need to buy it*".
> ➢ Security Risks - AI systems may be vulnerable to attacks, and if compromised, they could pose security risks – "The security of AI systems worries me. If they can be hacked or manipulated, it could have profound consequences".

An interesting discussion concerned "AI hallucination issue", i.e. nonsensical or untrustful content produced by Chat GPT as a result of inherent bias, lack of real-world understanding and limitations in the training data. In other words, it presents non-existing content as related to certain sources. Respondents asked if they had ever experienced "hallucinations" declared they were uncertain about this. They had heard about this problem, but it did not make them double-check the information obtained from Chat GPT. That was the introduction to the trust-related discussion in terms of artificial intelligence.

4.4 Level of Trust Towards Artificial Intelligence

An important question for all consumers of AI applications is whether the technology can be trusted. Based on information gathered from interviewed Gen Zers, the general assumption is that they trust artificial intelligence, at least to some extent. The study participants declared they: "*rather trust AI*", fewer replied they "*neither trust nor stay sceptical*".

On one hand they do realize that there is an algorithm making a social media content adjusted to personal preferences, a streaming platform offering interesting movies or advertisements responding to prior online search, but at the same time Gen Zers consider consulting AI on their health issues, personal interactions, or relationships (professional, friendship, romantic relationships) or life/ career plans.

The study participants were presented an official UE document indicating the UE Requirements for Trustworthy AI (2019), a list of 7 key requirements that AI systems should meet in order to be deemed trustworthy and were asked to indicate the most important one (or ones). Among the mentioned requirements, respondents most often pointed at "*Privacy and data governance*".

According to the informants, it is important to ensure privacy and data protection, quality and integrity of data, reliability of data sources and adherence to data-privacy laws and regulations. They expressed concern about the privacy of their data collected during interactions with AI applications.

Another important requirement according to the study participants would be the "*Societal (and environmental) well-being*" – by assessing the impact of AI on individuals and society, making the artificial intelligence sustainable (according to the triple-bottom-line concept: economically, socially, and environmentally). Their main concern was that AI had the potential to amplify misinformation, manipulate opinions, and contribute to online harassment, which raised concerns about the quality of online social interactions.

4.5 The Predicted Future of Artificial Intelligence

To sum up the interviews, Gen Zers were asked to predict the future of AI. First they declared AI is unstoppable – "*we cannot stop it, or return it, no matter what*", "*it will develop and improve by itself*", "*it will simplify and enrich our everyday life, provided we could minimize its drawbacks*".

There were also more sceptical visions of AI – "*It will change the world to an unimaginable extent*", "*In my opinion it is really fun, but the human intelligence may slowly decrease*". According to a Gen Zer " *AI has been improving our lives so far, but someone is going to screw up the world with it one day*".

5. Discussion and Conclusions

Literature studies and results of conducted research allow to notice that artificial intelligence is rapidly emerging as a pivotal area of scientific research, with its significance poised to grow exponentially in the coming years. As technological advancements continue to accelerate, AI's potential applications span across numerous sectors.

Moreover, as AI systems become increasingly integrated into everyday life, there is a pressing need for comprehensive research to address critical challenges such as ethics, transparency, and bias. Consequently, AI's growing importance as a transformative force underscores the imperative for robust scientific inquiry and collaboration to harness its full potential while mitigating associated risks.

In order to recognize the Gen Z customers attitudes and opinions towards artificial intelligence and complement the theoretical discussions outlined in the paper, qualitative research took the form of focus groups involving 34 representatives of Gen Z.

The research was planned to cover all components i.e. cognitive, affective, and behavioural (Svenningsson *et al.,* 2022, pp.1532-1533). The cognitive component was recognized by enquiring if, and to what extent the studied Gen Zers know AI. It became apparent that all participants were familiar with AI, but they expressed varying levels of familiarity with the technology.

Responses ranged from "being somewhat acquainted" to "growing up with technology and being quite familiar with AI". Informants affirmed having used AI, primarily on a daily basis, which refers to the behavioural component of their attitude, which provides an answer to the first research question (RQ 1). The participants were questioned about specific AI applications they were familiar with or used.

Commonly mentioned applications included virtual assistants (e.g., Amazon Alexa, Apple Siri, Google Assistant), navigation apps (e.g., Google Maps, Waze), and smart home devices. Social media platforms utilizing AI algorithms for content recommendations, such as Facebook, Instagram, Threads, TikTok, and others, were also discussed. Additionally, AI in gaming, educational tools like Chat GPT, and AI's role in media creation tools like Adobe Firefly and Sonix were highlighted.

Concerning sentiments towards AI, as related to the emotional component of attitudes, participants generally expressed positive or neutral views. Positive sentiments included excitement, curiosity, and optimism about the opportunities and innovations AI brings. Some participants felt smart, creative, and engaged when using AI. Neutral sentiments were also present, acknowledging that AI is helpful but not entirely reliable.

On the negative side, concerns about privacy, especially in terms of data protection, were voiced. These notices provide an answer to the second research question (RQ 2).

When asked about the perceived benefits of AI (behavioural dimension), participants identified AI's role in enhancing creativity, supporting adaptability, increasing enjoyment through personalized content, offering empowerment and opportunity, saving time, and providing ease of use.

However, participants also identified potential drawbacks of AI. Privacy concerns, biases in algorithms, job displacement, overreliance, ethical dilemmas, economic impact, and security risks were among the drawbacks mentioned. Notably, the discussion touched on the "AI hallucination issue," where nonsensical AI-generated content might be perceived as related to certain sources. By identifying the advantages and disadvantages, a response to the third research question (RQ 3) was delivered.

Regarding trust, participants generally indicated a level of trust they put in AI, though some expressed scepticism. Privacy and data governance were highlighted as crucial requirements for trustworthy AI, emphasizing the importance of data protection and adherence to privacy laws.

Additionally, societal, and environmental well-being emerged as significant concerns, with participants expressing worry about AI's potential to amplify misinformation and contribute to online harassment, which contributes to the answer of the fourth research question (RQ 4).

In terms of predicting the future of AI, participants generally believed that AI's development is unstoppable and will continue to simplify and enrich daily life. However, there were also more cautious views, suggesting that AI might change the world to an extent that is currently unimaginable, which addresses the fifth research question (RQ 5).

Overall, the study provides valuable insights into Gen Zers' diverse experiences, attitudes, and perceptions regarding artificial intelligence in various aspects of their lives. Young consumers often express a mix of excitement about the potential of AI and concerns about its ethical, social, and personal implications. These opinions reflect the need for responsible development, ethical considerations, and ongoing discussions surrounding AI.

On a managerial level, this study provides valuable insights into the components of Gen Z consumers' attitudes towards AI, shedding light on its dimensions and challenges. Addressing the perceived drawbacks of AI, as well as the most important trust issues, mentioned by the study participants, may allow companies using artificial intelligence to establish and sustain connections with a cohort that is

increasingly garnering attention from researchers and practitioners, poised to become the dominant generation in the future.

However, it's essential to acknowledge certain limitations within the study. The absence of quantitative evaluation hinders the generalizability of the findings beyond theoretical realms. Additionally, although respondents from various nationalities were included, they were not delineated into separate research groups.

The spatial context could enrich the understanding of Gen Zers' attitudes and perceptions towards AI by putting it in a social, cultural, and economic context, leaving ample room for future studies.

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