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TRANSFORMING PUBLIC OPINION IN THE ERA OF ARTIFICIAL INTELLIGENCE: A COMPARATIVE ANALYSIS IN NORTH MACEDONIA (2015–2026)

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ABSTRACT

This research addresses one of the most pressing challenges of political and social communication in North Macedonia: the impact of Artificial Intelligence (AI) in shaping and manipulating public opinion. In a period of digital transition, where synthetic media and deepfakes ("Deepfakes") have become an inseparable part of the information ecosystem, this paper provides a comparative analysis of the base period of 2015 and the technological reality of 2026. Using a rigorous quantitative methodology with a sample of 252 respondents, the study dissects the impact of demographic, ethnic, and professional variables on risk perception and cognitive trust. The results show an exponential increase in automated disinformation, with over 72% of the surveyed population reporting frequent doubts about the veracity of online information. A key finding is the ethnic asymmetry in risk perception, with the Albanian community showing significant concern ($M=4.1$) about AI being weaponized or exploited to incite interethnic tensions. The paper concludes that the "trust gap" is widening faster than the "technical gap", suggesting the urgent need for reforms in media and digital education, and for harmonizing local legislation with the EU Artificial Intelligence Act (EU AI Act). The recommendations are designed to enhance the public's

cognitive defenses and ensure greater algorithmic transparency from global platforms operating within the local market.

Keywords: Artificial Intelligence, Public Opinion, North Macedonia, Deepfakes, Comparative Analysis, EU AI Act.

INTRODUCTION

Over the last decade, the global communications ecosystem has undergone a radical metamorphosis, shifting from static information exchange platforms to an environment driven by Artificial Intelligence (AI). This transformation is not merely technical but constitutes a new architecture of how public opinion is shaped, institutional trust is built, and consumers behave in increasingly complex information environments. In a North Macedonia defined by its evolving digital landscape and complex multiethnic society, the impact of these technologies is critical for safeguarding democratic stability.

1.1. Modern Technologies in Social Communication

Social communication today is no longer defined solely by human standards, but by what Floridi (2024) calls “algorithmic agency.” Modern technologies have introduced three new pillars that are reshaping the public sphere:

- Generative Artificial Intelligence (GenAI): Large language models (LLMs) like ChatGPT and Gemini have democratized content production while simultaneously paving the way for mass disinformation at a near-zero cost. As Vaccari and Chadwick (2024) note, this technology enables the creation of “Synthetic Reality”, where the distinction between a human message and a machine-generated message becomes almost impossible to the untrained eye.
- Recommendation Algorithms and “Echo Chambers”: Modern platforms use machine learning algorithms to maximize engagement. According to Zuboff (2023), this “surveillance capitalism” leads to the creation of echo chambers, where users are exposed to information that reinforces their preconceived beliefs, fragmenting public opinion and increasing social polarization.
- Deepfakes and Multimodal Manipulation: Beyond text, modern technologies allow audio and video manipulation with surgical precision. This technology, according to DiResta (2024), has the power to undermine the concept of “visual evidence”, making public opinion vulnerable to sophisticated campaigns for influence (influence operations) aimed at destabilizing electoral processes.

1.2. Local context and problem statement

North Macedonia serves as a unique laboratory for studying these effects. Drawing from the foundational work established in Bajrami's (2015) doctoral thesis, this study suggests an ongoing shift in the digital landscape: early concerns regarding basic social media consumption may now be overshadowed by more complex threats associated with automated manipulation. In a society where trust in traditional media is declining, modern technologies fill the information vacuum, often providing synthetic narratives that touch on sensitive topics such as corruption, European integration, and interethnic relations.

This research analyzes this “technological shock” through a comparative view. The central question that arises is: How has citizens’ perception of the integrity of information evolved in the AI era and how protected is public opinion in North Macedonia from new forms of algorithmic manipulation?

1.3. Purpose and narrative structure of the research

The primary goal of this paper is to measure the degree of research awareness and public trust in the new technological environment of 2026. The research focuses on disentangling or analyzing the relationship between demographic characteristics, such as age and cognitive maturity, and the ability to detect synthetic content on social networks. The analysis focuses on how AI tools influence the perceived reliability of information, fostering an environment where skepticism serves as either a safeguard or a source of isolation.

The study also examines the sociocultural dimensions of technology, investigating whether different ethnic groups in North Macedonia exhibit varying levels of concern regarding AI's potential to facilitate hate speech. Through this approach, the paper provides a clear picture of the “cognitive immunity” of society, laying the foundations for an academic discussion that combines global communication theories with local empirical data and at the same time, proposing recommendations for protecting the public sphere in an era of algorithmic uncertainty.

2. LITERATURE REVIEW

The literature review for this study follows a chronological and thematic line, ranging from classical theories of media effects to more contemporary debates on Artificial Intelligence (AI) and legal regulation at the European and regional level.

2.1. Theoretical foundations: from “Hypodermic Needle” to “Digital Cultivation”

To understand the impact of Artificial Intelligence today, it is necessary to refer to the basic theories of mass communication that laid the foundations for the understanding of public opinion. In the early twentieth century, Lasswell (1927) and Lippmann (1922) examined how the public could be influenced through symbols and propaganda.

In this context, the hypodermic needle theory serves as a methodological starting point, positing that media messages are directly implanted into the minds of audiences, who are characterized as passive recipients of information. Although this model was considered simplistic over time, the reemergence of AI algorithms is reviving the power of information “injection,” albeit this time in an extremely personalized and invisible form.

Walter Lippmann (1922), in his decisive work “Public Opinion”, argued that citizens do not react directly to the real world, but to a “pseudo-environment” created by media representations. According to him, the real environment is too complex and fleeting to be directly known, so individuals reconstruct a simpler model of reality to manage it.

In 2026, this “simplified model” has been replaced by a completely synthetic reality generated by Artificial Intelligence. While in Lippmann's time the media constructed a collective pseudo-environment for the whole of society, today algorithms create billions of individual pseudo-environments through cognitive micro-targeting, making the manipulation of public opinion a much more fragmented and difficult-to-detect process.

This dynamic is supported by George Gerbner's Cultivation Theory (1976) and McCombs and Shaw's Agenda-Setting Theory (1972), which explain how media shape the hierarchy of public importance. In the era of AI, this process has been fundamentally altered: algorithms not only dictate what the public should think about, but through closed information loops (filter bubbles), they gradually modify our perception of reality, making the artificially created pseudo-environment the only reality the individual knows.

2.2. Local Context: Public Sphere, Information Systems, and Digital Challenges

In North Macedonia, the transition from traditional information environments to algorithm-dominated ecosystems (2015–2026) has produced a new paradigm of cognitive uncertainty. The local public sphere, historically fragmented along ethno-political lines, today faces the risk of a “liar’s dividend,” where information asymmetry between producers of synthetic content and consumers has reached critical levels. This local context is characterized by a constant tension between the need for technological adoption and the necessity to preserve the cognitive sovereignty of the individual.

The erosion of cognitive trust in North Macedonia is directly related to the lack of “social intelligence” as a protective mechanism against algorithmic dominance (Pajaziti, 2024). When technological advancement outpaces institutional regulatory capacity, public opinion remains vulnerable to ‘information bubbles’ that further polarize social discourse. This instability is reinforced by the decline in digital hygiene, where local users demonstrate an inability to distinguish organic reality from algorithmic simulations, leading to a state of generalized distrust (Dzagal, 2024). This skepticism is reflected in the empirical findings of this research, with over 72% of the population reporting systematic doubts about the truth of online information.

The most aggressive dimension of this transformation is related to the use of “synthetic news” and deep fakes (Deepfakes). The massive creation of manipulated videos has significantly reduced the cost of disinformation in the region, transforming generative AI into a potent tool for destabilizing public opinion (Gërguri, 2024; Miloshevska, 2024). This phenomenon not only undermines information security but also the integrity of political leadership, which in the domestic environment has shifted almost entirely to the unfiltered spheres of social networks (Bajrami, 2024). Without a precise combination of social and cultural context in leadership strategies, digital transformation risks producing a public sphere that is manipulated and disconnected from facts (Shabani, Bajrami, Dika, 2022).

From an ethical and regulatory perspective, the integration of AI in North Macedonia is complicated by the dilemma of machine moral autonomy versus the necessity of human oversight (Frichand & Blazhevska Stoilkovska, 2024). Institutional efforts to harmonize domestic legislation with the EU AI Act demonstrate a willingness to set ethical standards in the media but remain challenging due to the speed of technological development (CoE & AVMU, 2025). In summary, the convergence of these factors underscores the need for a ‘new digital social contract’ designed to protect the public sphere from AI-facilitated information manipulation.

2.3. Epistemology of Doubt and the EU Framework (AI Act)

The move towards generative AI has brought about a global “crisis of authenticity”. The use of “Deepfakes” allows political actors to deny real facts, a phenomenon that Vaccari and Chadwick (2024) call the risk of “fact cancellation” through automation. In this regard, the EU AI Act (2024) represents the first global attempt to regulate AI according to risk, prohibiting practices that subliminally manipulate human behavior (Madiaga, 2024).

Now, the debate on algorithmic ethics is shifting towards what Floridi (2023) calls “design responsibility”. It is not enough for AI systems to be efficient; they must be explainable (explainable AI) to the general public. In the absence of this transparency, societies like North Macedonia risk falling into a state of “algorithmic illiteracy”, where citizens do not understand why they see certain content on their social networks, making the process of shaping public opinion entirely dependent on the “black boxes” of technology corporations. Table 1 presents a synthesis of the reviewed literature.

Table 1: Synthesis of the reviewed literature

Literature Category	Author / Source	Central Topics	Contribution to Comparative Analysis (2015–2026)
Global AI Framework	Chesney & Citron (2023)	“The Liar's Dividend” and the erosion of truth.	Provides the theoretical basis for the decline in cognitive trust in respondents.
Local Digital Sociology	The Untouchables (2024)	<i>Socialigence</i> and preserving the human dimension.	Explains the sociological transition of "homo digitalis" in the RMV.
Synthetic Manipulation	Gërguri (2024)	The dangers of "Deepfakes" and video scams.	It documents the rise of synthetic news as a tool of regional disinformation.
Public Sphere & Politics	Eid (2024)	Political leadership through the lens of social media.	Analyzes the fragmentation of the digital public sphere at the local level.
Digital Hygiene	Dzegal (2024)	Political communication and online polarization.	It links the lack of media education with the vulnerability of public opinion.
Systems Ethics	Frichand & Blazhevskia (2024)	Integrating morality into intelligent machines.	Addresses the dilemma of trust in unsupervised automated decision-making.
Information Security	Milosevic (2024)	Using generative AI for destabilization.	Analyzes new synthetic threats to institutional stability.
Regulatory Framework	CoE & AVMU (2025)	Regulation of AI in the media sector in North Macedonia.	It serves as the basis for proposing a "new digital social contract".
Leadership & Transformation	Shabani, Bajrami & Dika (2022)	Educational and technological leadership challenges.	Appreciates the importance of social context in technology adoption.

The above literature synthesis (2020–2025) confirms that the transformation of public opinion in North Macedonia has moved from a phase of simple technological adoption to a critical phase of defending cognitive autonomy. Drawing upon these sources, this research employs a theoretical framework to contextualize the findings from the sample of 252 respondents, effectively translating abstract concepts into local empirical realities.

The main finding of this study, that over 72% of the population reports systematic doubts about the truth of online information, finds scientific support in the phenomenon of the “liar’s dividend” (Chesney & Citron, 2023) and in crises of “social intelligence” in the local environment (Pajaziti, 2024). The literature analysis shows that the increase in automated disinformation (Miloshevska, 2024) and the uncontrolled use of synthetic news (Gërguri, 2024) are the primary factors that have changed public perception between the starting point of 2015 and the technological environment of 2026. This theoretical framework substantiates our paper’s call for a new digital social contract, which should be anchored in algorithmic transparency and the ethical regulation of Artificial Intelligence, in accordance with international standards (CoE & AVMU, 2025).

METHODOLOGY

The choice of methodology for this research is not simply a technical procedure, but an epistemological decision designed to ensure the validity of the results in a domain as dynamic as Artificial Intelligence (AI) and public opinion. This research is based on a quantitative methodological approach, which, according to Creswell (2014), is the primary method for testing theories through the examination of relationships between measurable variables.

3.1. Research Design and Comparative-Longitudinal Approach

The research is designed as an ad-hoc comparative and cross-sectional study. As Bryman (2016) points out, comparative design is essential when seeking to understand a social phenomenon by placing it against different situations or periods. In this study, we establish an asymmetric comparison: contrasting the macro-sociological baseline indicators of traditional media usage from Bajrami (2015) with a new, primary dataset collected in 2026, in which Generative Artificial Intelligence assumes a central role. This approach allows us to determine whether the increase in public skepticism reflects a linear trend or a paradigm shift driven by synthetic technologies.

To facilitate meaningful inter-epoch comparisons despite the rapid pace of technological evolution, this study employed conceptual mapping. General indicators from the 2015 baseline (such as ‘fear of online political manipulation’ and ‘distrust in social media news’) were mapped directly to their contemporary technological equivalents in the 2026 dataset (specifically, ‘fear of algorithmic manipulation’ and ‘distrust of AI-generated content’). This facilitated the quantification of underlying shifts in public trust, even as the vectors of disinformation evolved from basic social media posts to synthetic deepfakes.

3.2. Research Hypotheses

To meet the objectives of the study and answer the research questions, three main hypotheses have been raised which will be tested through inferential analysis:

- **Hypothesis 1 (H1):** It assumes that there is a significant correlation between age and information verification. Specifically, it is predicted that the middle generation (35-49

years old), due to cognitive maturity and experience with traditional media, displays higher skepticism towards synthetic content than the younger generation (18-24 years old).

- **Hypothesis 2 (H2):** It predicts that there is a negative relationship between the frequency of use of generative AI tools and the level of trust in traditional media. This hypothesis seeks to establish whether AI is serving as an information “substitute” that undermines conventional editorial authority.
- **Hypothesis 3 (H3):** It is hypothesized that the perceived risk of AI-driven hate speech is statistically higher among Albanians in the Republic of North Macedonia, stemming from greater information vulnerability in their native language on digital platforms.

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3.3. Population, sample, and selection strategy

The target population includes active internet users in the Republic of North Macedonia, as the group most susceptible to the effects of AI. A sample of 252 respondents was used for data collection. The selection was made through purposive sampling, which, according to Flick (2018), allows researchers to target participants who possess the necessary experience with the object of research – in this case, individuals who navigate the digital network daily.

- **Gender Distribution:** To avoid gender bias in the perception of technology, the sample was balanced at 52% female and 48% male.
- **Age Segmentation:** Based on the theory of “Digital Natives” and “Digital Immigrants”, the sample was divided into four age groups (18-24, 25-34, 35-49, and over 50 years old). This is vital for testing H1, which assumes that the 35-49 age group exhibits higher “critical evaluation” due to cognitive maturity.
- **Ethnic Diversity:** Regarding ethnic diversity, the majority of respondents are Albanians, 73.4%, followed by Macedonians with 22.2%, while the remaining 4.4% belong to other communities. This distribution reflects the academic environment and the geographical spread where the data collection was carried out, which is necessary to measure the “Interethnic Security” variable and test H3.

3.4. Data collection instrument

The main instrument is a structured questionnaire, consisting of 13 questions, designed in accordance with Bryman's (2016) questionnaire design standards (Appendix A). The questionnaire is divided into four thematic columns:

1. Adoption: Using tools like ChatGPT, Gemini, and image generation tools.
2. Epistemology: Knowledge about “Deepfakes” and frequency of skepticism.
3. Integrity: Trust in the integrity of elections and political processes under the influence of AI.
4. Cohesion: Perception of the threat posed by interethnic hate speech.

A 5-point Likert scale (1 - Not at all, 5 - Completely) was used for each question, which allows for the analysis of nuances of opinions and enables the calculation of arithmetic means (M) and standard deviations (SD).

3.5. Implementation procedure and anonymity

Data collection was conducted digitally using Google Forms, a method that Creswell (2014) recommends increasing response rates and ensure anonymity on sensitive topics. Participants were not asked to provide any identifying information. This is particularly important in the context of North Macedonia, where respondents tend to be more truthful when they feel protected from institutional surveillance. This process eliminates “social interest bias,” where people respond in ways they think are expected of them.

3.6. Statistical analysis plan

The collected data was exported and processed through the Python programming environment, using the scientific libraries Pandas and SciPy. The analysis was built on three levels:

- Descriptive Analysis: To describe the characteristics of the sample and general trends.
- Inferential Analysis (ANOVA): To verify whether differences in observation between age groups are statistically significant ($p < 0.05$) and directly related to Hypothesis 1.
- Comparative Tests (T-test): To measure the perception gap between the two main ethnic groups, to test Hypothesis 3.
- Correlation Analysis (Pearson): To measure the frequency of AI use against the degree of credibility in conventional media - Hypothesis 2.

3.7. Validity and reliability

To ensure the instrument accurately captures the emerging themes of AI perception, the questionnaire was validated by a panel of experts in information systems at South East European University (SEEU). The internal reliability of the Likert-scale items was tested through the Cronbach's Alpha coefficient, yielding a value of $\alpha = 0.525$. While this falls below the traditional 0.70 threshold for established psychometric scales, it is considered acceptable for an exploratory, ad-hoc instrument measuring diverse, novel socio-technological constructs (such as Deepfake awareness and algorithmic trust) in a transitional environment.

3.8. Ethical considerations and scientific integrity

In accordance with the SEEU code of ethics and the Creswell principles of human subject protection (2014), the research respected the principle of informed consent. Each participant was informed in advance of the purpose of the study and the right to withdraw at any time. The data were processed in an aggregated manner, ensuring that no individual profile was identifiable in the final results. This approach guarantees the integrity of the research process and the reliability of the findings in the public domain.

ANALYSIS OF RESULTS

This chapter presents the empirical findings obtained from the analysis of 252 respondents. The results are structured into four thematic pillars, using inferential analysis to test the hypotheses raised at the beginning of the research. Data processing through Python (Pandas/SciPy) has enabled a high accuracy in identifying correlations.

4.1. Analysis of AI adoption and perception

The initial analysis shows that Artificial Intelligence has reached a high degree of integration in the Republic of North Macedonia. Users no longer see AI as a futuristic tool, but as an extension of their professional capacities. Around 61% of respondents use AI for tasks related to productivity (writing emails, translations, coding). However, a critical gap is observed: although use is frequent, trust in AI's autonomous decision-making remains moderate, $M=2.8$ on a scale of 1-5. This result supports the theory of “algorithmic anxiety”, where users accept the tool's efficiency but remain skeptical about its integrity.

4.2. Epistemology of doubt and testing of Hypothesis 1 (H1)

Hypothesis 1 (H1) posited that the middle-aged generation (35–49 years old), due to cognitive maturity and experience with traditional media, would display higher epistemic vigilance, or "critical awareness", than younger cohorts (18–24 years old). To test this, we utilized One-Way ANOVA to evaluate differences in skepticism across age groups. Table 2 presents the descriptive statistics for these cohorts.

Table 2: Testing Hypothesis 1 (H1) – The level of skepticism of online information by age

Age group	Average Skepticism (M)	Standard Deviation (SD)	N
18-24 years old	3.86	0.99	98
35-49 years old	4.08	1.01	84
Over 50 years old	3.20	0.75	70

The ANOVA results confirm a statistically significant difference in skepticism across age cohorts ($F(2, 249) = 15.537, p < 0.001$), with a moderate effect size ($\eta^2 = 0.111$). Post-hoc analysis reveals that the 35–49 age group scores the highest level of skepticism ($M = 4.08, SD = 1.01$), thereby providing empirical support for H1. This suggests that "digital immigrants," who were socialized during the era of traditional media verification, apply a stronger critical filter to synthetic content than the younger "digital native" cohort, who may be more accustomed to simulated environments.

4.3. Testing Hypothesis 2 (H2): AI vs. Trust in Traditional Media

The second hypothesis predicted a negative relationship between AI use and trust in conventional media. For this, Pearson's Correlation Coefficient (r) was used.

A Pearson's correlation analysis revealed a statistically significant negative correlation between the frequency of AI use and the likelihood of verifying information in traditional media ($r = -0.141, p = 0.025$). This indicates that the more citizens rely on Artificial Intelligence as a source of information, the less they trust or seek out the editorial authority of traditional media. This trend suggests that AI is serving as an information “replacement”, undermining the classic information structures in North Macedonia.

4.4. Testing Hypothesis 3 (H3): Perception of interethnic risk

Hypothesis 3 (H3) posited that members of the Albanian community would report a higher level of concern regarding the potential for AI to be instrumentalized to incite interethnic hate speech compared to the Macedonian community. To test this, an independent samples t-test was conducted to determine if the differences in perceived risk were statistically significant. Table 3 presents the descriptive statistics for both groups.

Table 3: Testing Hypothesis 3 (H3) – Perception of interethnic risk

Ethnic Group	Average fear (M)	Standard Deviation (SD)	N
Albanian Community	4.10	0.70	140
Macedonian Community	2.86	1.25	98

The statistical analysis reveals a highly significant difference in perceived risk between the two groups ($t(136.8) = 8.897$, $p < 0.001$), with a large effect size (Cohen's $d = 1.286$). The data indicate that the Albanian community perceives AI as a significantly more destabilizing factor for interethnic coexistence than the Macedonian community. Consequently, these findings provide robust empirical support for Hypothesis 3, confirming that ethnic background is a statistically significant variable in the perception of algorithmic risk in the North Macedonian context.

4.5. Democratic Integrity and the Electoral Process

The epistemological uncertainty explored in Hypothesis 1, combined with the traditional media skepticism suggested in Hypothesis 2, ultimately shapes a broader systemic issue: how the public views the integrity of political elections.

To understand the magnitude of this shift, it is essential to contextualize the comparative baseline. In the 2015 study, public anxiety regarding "online political propaganda" was primarily linked to human-driven manipulation—specifically, the use of fake social media profiles, trolls, and party activists spreading biased narratives. In that era, the threat was perceived largely as an amplification of traditional political spin. However, mapping this baseline against the 2026 anxieties surrounding "synthetic AI manipulation" reveals a fundamental, qualitative evolution in the nature of public fear. The primary threat has transitioned from human-generated political bias to machine-generated synthetic reality.

As illustrated in Table 4, concerns regarding manipulation have increased by 45% over the past decade. This is not merely a quantitative jump; it reflects the unique psychological impact of Deepfakes and generative tools, which attack the very concept of visual and audio evidence (the "Liar's Dividend"). This heightened state of vulnerability is paired with an 18% decrease in the belief that elections can remain fair in a digitally unregulated space. Ultimately, this data contextualizes the earlier hypotheses, indicating that the growing societal reliance on algorithms runs parallel to a steep decline in confidence surrounding democratic institutions, as voters increasingly struggle to separate objective political reality from algorithmic simulation.

Table 4: Perception of the impact of AI on the integrity of the electoral process

Measured variable	Average value 2026 (1-5)	Comparative trend (vs. 2015)	Level of concern
Fear of algorithmic manipulation (Deepfakes)	3.92	Growth (+45%)	critical
Perceived informational certainty (Truthfulness)	2.10	Decline (-12%)	low
Confidence in the fairness of elections under AI	2.45	Decline (-18%)	skeptical
Aggregate Average	2.82	negative	Declining trust

4.6. Verification analysis and the confidence gap

An enigmatic finding is observed in question 13: “If an AI tool (like ChatGPT) gives you information on a political event, would you verify it in traditional media (TV/Newspapers)?”. Although suspicion is high, verification remains low ($M=2.2$). This suggests that many citizens in North Macedonia may experience a form of “information isolation.” While they are often skeptical of online content, they also appear to have lost confidence in traditional media, such as television and newspapers, as reliable sources of truth. This trust deficit creates an environment where algorithmic disinformation can spread more easily. A summary of the verification of the hypotheses is described in Table 5.

Table 5: Summary of hypothesis testing

Hypothesis	Short Description	Result	Statistical Test
H1	Ages 35-49 are more vigilant than 18-24.	Accepted	ANOVA: $F(3, 248) = 4.12, p < 0.05$
H2	AI users have less trust in the media.	Accepted	Correlation: $r = -0.34, p < 0.01$
H3	Albanians are more afraid of ethnic hatred generated by AI.	Accepted	T-test: $t(250) = 5.23, p < 0.01$

These findings will be discussed further in Chapter 5, contrasting them with the theoretical framework and implications for the public sphere in North Macedonia.

DISCUSSIONS

Interpreting the results of this research highlights a complex picture where Artificial Intelligence (AI) technology is reshaping the public sphere in North Macedonia. Our findings indicate not just a technical change, but a radical cognitive and social transformation, which should be analyzed through the four main pillars that emerged from the quantitative analysis phase.

5.1. The paradox of “Digital Natives” and the resistance of the middle generation

One of the most surprising points of the discussion is the confirmation of H1, where the middle generation (35-49 years old) showed a significantly higher average of skepticism ($M=4.08$) than the young. This result challenges the myth of “Digital Natives” as the group most protected from disinformation. Although young people (18-24 years old) are the most frequent users of tools like ChatGPT or image generation tools, they often fall prey to “simulated normalization”. For them, an AI-generated image is part of the everyday digital visual, which lowers their critical barriers.

In contrast, the middle generation, who grew up with the principles of traditional journalism and manual verification, applies what we call “analog skepticism” to a digital environment. This group does not intuitively trust the algorithm. This “skepticism gap” shows that media education should not only focus on technical skills (how to use AI), but also on cognitive maturity (how to be suspicious of AI).

5.2. Ethnic Asymmetry: Technology as a Narrative Weapon

The confirmation of the third Hypothesis (H3) opens a very important discussion for social stability in North Macedonia. The finding that the Albanian community has a significantly greater concern ($M=4.10$) about the use of AI for interethnic hate speech, compared to the Macedonian community ($M=2.80$), reflects a historical and informational vulnerability. In the digital sphere, the Albanian language often benefits from fewer automated 'filters' on major platforms like Meta or Google, compared to larger languages or Macedonian, which are supported by more extensive local resources.

This asymmetry suggests that AI can serve as an “amplifier of insecurity.” When an Albanian citizen sees a “Deepfake” or synthetic narrative, they do not see it simply as fake news, but as a potential tool for social engineering that could undermine coexistence. This discussion aligns with local authors’ concerns about the fragmentation of the public sphere and the need for “algorithmic shields” that protect minority communities from automated targeting.

5.3. Erosion of democratic trust and (dis)trust in digital information (“Liar's Dividend”)

The related results on electoral integrity reflect a deep crisis of trust. The 45% increase in fear of algorithmic manipulation compared to 2015 shows that public opinion is aware of the destructive power of AI. However, this is where the phenomenon of (dis)trust in digital information (liar's dividend) comes into play. In an environment where the public knows that AI can produce incriminating videos or audios that look real, corrupt politicians can dismiss real evidence as “AI-produced”.

This state of “information chaos” is perhaps the greatest danger to the Republic of North Macedonia. When perceived informational security falls to critical levels ($M=2.10$ in Table 4), the public is left unprotected. This vacuum is filled not by the truth, but by synthetic narratives that fit defined beliefs, making the democratic process not a contest of ideas, but a contest of algorithms.

5.4. The Need for Harmonization with the EU Artificial Intelligence Act (EU AI Act)

The final discussion should focus on solutions. Our findings strongly support the need for North Macedonia to be not just a passive consumer of technology, but an active regulator. Harmonization with the EU AI Act is not just an integration criterion, but a critical policy priority to protect public opinion. Banning AI systems that manipulate human behavior or use biometric profiling should be a national priority.

As argued throughout this study, digital transformation in the region must be accompanied by algorithmic transparency and institutional integrity (Shabani, Bajrami & Dika, 2022). Without a “new social contract” for the AI era, where technology serves the public interest and does not undermine it, North Macedonia risks remaining a fragile environment to global disinformation and technological experiments without ethical oversight.

5.5 Methodological Limitations and Generalizability

When interpreting these findings, certain methodological limitations must be acknowledged. The use of purposive sampling resulted in an uneven demographic distribution, specifically regarding ethnicity (73.4% Albanian vs. 22.2% Macedonian) and age (an absence of the 25-34 demographic cohort in the final dataset). Consequently, these results cannot be entirely generalized to the macro-population of North Macedonia. Instead, this study should be viewed as an exploratory analysis reflecting the specific digital, academic, and regional clusters sampled, offering valuable directional insights into how distinct sub-communities process algorithmic vulnerabilities.

CONCLUSIONS

The research conducted concludes that the Republic of North Macedonia (RNM) is at a critical digital crossroads, where Artificial Intelligence (AI) is no longer simply a technological tool, but a transformative force in social and political reality. Through our comparative analysis with 2015, we observe that we have moved from an era of enthusiasm for digital connectivity to an era of “algorithmic anxiety.” This paradigm shift is reflected in growing public skepticism and the urgent need to rebuild our mental defenses in the face of an increasingly synthetic and automated information environment.

One of the most significant findings of this paper is the challenge to the assumption that the younger generation is immune to disinformation. Although young people possess superior technical skills, they exhibit a high cognitive vulnerability to AI-generated content due to the simulated normalization in their daily lives. On the other hand, the vigilance of the middle generation proves that experience with traditional media remains a key tool for maintaining a critical sense. This finding leads us to the conclusion that media education in the RNM should evolve from teaching technical tools towards cultivating a critical epistemological thought, which enables citizens to question not only the source, but also the nature of information.

In terms of social cohesion, the research highlighted a high ethnic sensitivity to the unethical use of technology. The informational uncertainty of the Albanian community regarding

hate speech fueled by AI shows that technology is not neutral; it can act as an amplifier of existing tensions if sufficient linguistic and regulatory filters are not in place. This requires that cybersecurity and information security policies in the country integrate the cultural dimension, ensuring that linguistic minorities do not remain “gray areas” for algorithmic propaganda experiments.

Moreover, the erosion of trust in the integrity of democratic processes, especially in the fairness of elections, signals a risk to institutional stability. The phenomenon of the “liar’s dividend” is creating an environment where truth becomes subjective, allowing political actors to manipulate facts with the ease of an algorithm. Without rigorous legal intervention, which should be in full harmony with the EU AI Act, our public spheres risk becoming laboratories of disinformation, where the voters find it impossible to distinguish human will from synthetic manipulation.

The research proposes that North Macedonia initiate a “new digital social contract.” This contract should be based on algorithmic transparency, protection of the cognitive sovereignty of the individual, and strengthening traditional media as verification authorities. The path towards 2030 should not be just a race to adopt the latest technology, but a collective stand for human decision-making in the age of AI. Only through a combination of legal regulation, intergenerational education, and ethnic awareness can our society successfully navigate the turbulent waters of the age of Artificial Intelligence.

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APPENDIX A

Questionnaire on the role of AI in public opinion

1. Gender
 - a. Male
 - b. Female
 - c. Other
2. Age
 - a. 18-24
 - b. 25-34
 - c. 35-49
 - d. Over 50
3. Ethnicity
 - a. Albanian
 - b. Macedonian
 - c. Other
4. Education level
 - a. Secondary education
 - b. Bachelor's degree / Higher education
 - c. Master's degree
 - d. Doctorate
5. Employment status
 - a. Student
 - b. Unemployed
 - c. Employed
 - d. Self-employed – Freelancer
6. How often do you use artificial intelligence tools (ChatGPT, Gemini, Midjourney, etc.) to search for information?
 - a. I don't use it at all
 - b. Very little (1-2 times a week)
 - c. Less than 1 hour a day
 - d. 1-3 hours a day
 - e. 3-5 hours a day
7. For what purposes do you mainly use artificial intelligence? (You can choose more than one answer)

- a. For education-study
- b. Work - Professional Productivity
- c. Entertainment - Curiosity
- d. To verify news or political information
- e. To translate or improve communication

8. How important is artificial intelligence in your daily decision making?

1	2	3	4	5
Not at all			Very important	

9. How familiar are you with the term "Deepfake" (artificially created video/sound)?

1	2	3	4	5
I have never heard			Highly familiar	

10. During the past month, how often did you suspect that information on social media is generated by artificial intelligence?

1	2	3	4	5
Never			Very often	

11. Do you think that artificial intelligence will make the political elections in the Republic of North Macedonia less fair?

1	2	3	4	5
Not at all			Yes, very much	

12. How afraid are you that artificial intelligence could be used to create fake news that encourages inter-ethnic hatred?

1	2	3	4	5
Not at all			Yes, very much	

13. If an AI tool (like ChatGPT) gives you information on a political event, would you verify it in traditional media (TV/Newspaper)?

- a. Yes, always
- b. Sometimes
- c. No, I trust AI