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REVIEW
of the official reviewer of the dissertation work of Ashimova Aitolkyn Berikkyzy on the topic "Artificial Intelligence as an Instrument of Political Communication: Application and Global Forecasting", submitted for the degree of Doctor of Philosophy (PhD) in the educational program "8D03202 Media and Communications"

№	Criteria	Compliance with the criteria (underline one of the answer options)	Justification of the official reviewer's position (comments should be highlighted in italics)
1.	The topic of the dissertation (as of the date of its approval) corresponds to the directions of scientific development and/or state programs	1.1 Compliance with priority areas of scientific development or state programs: 1) the dissertation was completed within the framework of a project or target program financed from the state budget (indicate the name and number of the project or program); 2) the dissertation was completed within the framework of another state program (indicate the name of the program); 3) the dissertation corresponds to the priority direction of scientific development approved by the Higher Scientific and Technical Commission under the Government of the Republic of Kazakhstan (indicate direction).	The dissertation demonstrates exceptional alignment with Kazakhstan's strategic priorities: **Direct Correspondence with State Programs:** • **"Concept of Development of Artificial Intelligence for 2024-2029"**: Research directly supports goals of launching Kazakhstani supercomputer by 2025 and developing 25+ AI-enabled solutions by 2029 • **"Digital Kazakhstan" State Program (2018-2022)**: Aligns with digital

			transformation objectives and transition to proactive governance • **"Accessible Internet" National Project (2023-2027)**: Supports infrastructure development for AI deployment • **Legislative Framework**: Engages with amended Law "On Informatization" including new AI-related concepts **Presidential Priority Alignment:** Responds directly to President Tokayev's declaration that "Artificial intelligence technology is as revolutionary as electricity and the Internet were in their day" and his emphasis on AI as "the most important factor in progressive development of Kazakhstan." **Economic Development Support:** The SWOT/PEST analysis provides actionable insights for transitioning from resource-dependent to knowledge-based economy.
2.	Importance for Science	The work makes/does not make a significant contribution to science, and its importance is/is	**Major Scientific**

		not well explained.	**Contributions:** **Theoretical Innovations:** • Development of communication evolution model (linear → interactive → transactional) extending classical theory into AI era • Novel application of historical periodization to AI development forecasting • Integration of computational propaganda theory with traditional political communication frameworks • First comprehensive theoretical framework for AI in political communication within Central Asian context **Interdisciplinary Integration:** Successfully bridges political science, media studies, computer science, international relations, creating new theoretical connections previously unexplored in academic literature. **Methodological Contributions:** • Combined SWOT-PEST

			analysis for national AI development assessment • Statistical validation of AI adoption patterns and political attitudes • Multi-level analytical framework (micro, meso, macro levels) **Knowledge Gap Resolution:** Addresses critical void in understanding AI's role in political communication, particularly in developing nation contexts.
3.	The principle of independence	Level of independence: 1) high; 2) medium; 3) low; 4) no independence.	**Research Autonomy Demonstrated:** **Original Research Design:** • Independent development of mixed-methods approach combining multiple analytical frameworks • Self-directed expert survey design and execution (n=84, 76.4% response rate) • Autonomous statistical analysis using Spearman correlation coefficients **Theoretical**

			Independence: • Original synthesis of diverse theoretical sources to create new analytical models • Independent critical evaluation of existing paradigms • Self-directed theoretical positioning within interdisciplinary literature **Intellectual Autonomy:** • Independent problem identification and research question formulation • Autonomous data collection and analysis procedures • Original interpretation of findings and policy recommendations While appropriately acknowledging supervisory guidance, the work clearly demonstrates independent scholarly development and original research contributions.
4.	The principle of internal unity	4.1 Justification of the relevance of the dissertation: 1) justified; 2) partially justified; 3) not justified.	**Structural Coherence:** **Logical Progression:** The dissertation follows coherent structure from historical AI development

			through contemporary applications to future forecasting, maintaining thematic unity throughout. **Methodological Consistency:** Research methods align consistently with stated objectives across all three chapters, from historical analysis to empirical investigation to predictive modeling. **Theoretical Integration:** Successfully integrates multiple theoretical frameworks while maintaining focus on core research questions about AI's impact on political communication. **Minor Areas for Improvement:** • Some sections in Chapter 2 could benefit from tighter integration with the forecasting model presented in Chapter 3 • Transition between international relations analysis and Kazakhstan-specific findings could be smoother
		4.2 The content of the dissertation reflects the topic of the dissertation: 1) completely reflects; 2) partially reflects; 3) does not reflect.	**Comprehensive Topic Coverage:** The dissertation content demonstrates exceptional alignment with the stated

			topic across all three main areas: **Artificial Intelligence as an Instrument:** • **Chapter 1** extensively covers AI development history from 1956 Dartmouth Conference to contemporary generative AI models • Detailed analysis of AI applications in media (automated journalism, NLG systems, LLMs like ChatGPT, GPT-4) • Systematic examination of AI tools in political processes (social bots, recommendation algorithms, deepfakes) • Comprehensive coverage of AI as diplomatic tool and factor in international relations **Political Communication Focus:** • **Chapter 2** thoroughly addresses digital transformation of political communication • Extensive analysis of computational

			propaganda and new political communication tools • Detailed examination of AI's role in shaping international discourse • Systematic coverage of emerging power dynamics in digital political space **Application and Global Forecasting:** • **Chapter 3** provides concrete application analysis through Kazakhstan case study using SWOT/PEST methodology • Development of global forecasting model for political communication evolution • Expert survey providing empirical evidence for forecasting validity • Comprehensive trend analysis and future predictions **Topic Coherence Verification:** **Introduction Alignment:** Research objectives stated in

			introduction are systematically addressed: • ✓ Theoretical and methodological foundations of AI analyzed (Chapter 1.1) • ✓ AI applications in modern media examined (Chapter 1.2) • ✓ Theoretical approaches to AI in international relations covered (Chapter 1.3) • ✓ Digital transformation and computational propaganda analyzed (Chapter 2) • ✓ Kazakhstan AI development assessed (Chapter 3.1) • ✓ Global forecasting model developed (Chapter 3.2) • ✓ Expert survey conducted and analyzed (Chapter 3.3) **Keyword Integration:** All key terms from the title are substantively addressed throughout the work with appropriate depth and scholarly rigor.
		4.3. The aim and objectives correspond to the topic of the dissertation: 1) correspond; 2) partially correspond; 3) does not correspond.	**TOPIC ANALYSIS** **Dissertation Topic Components:**

			• **Artificial Intelligence** - as the primary technological focus • **Instrument of Political Communication** - functional relationship between AI and political processes • **Application** - practical implementation and current usage • **Global Forecasting** - predictive analysis and future trends **AIM CORRESPONDENCE ASSESSMENT** **Stated Aim:** "To analyze the impact of AI technologies on political communication in the context of digitalization process, with special emphasis on Kazakhstan, and to forecast trends in political communication processes driven by AI." **Correspondence Analysis:** **✓ EXCELLENT ALIGNMENT - All Topic Elements Addressed:** **1. Artificial Intelligence Coverage:** • Aim explicitly targets "AI

			technologies" matching the topic's focus on artificial intelligence • Encompasses both current AI applications and emerging technologies • Addresses AI as the central technological driver **2. Political Communication Integration:** • Aim specifically examines "political communication" as the primary domain of analysis • Focuses on AI's "impact" on political processes, directly addressing the "instrument" concept from the topic • Encompasses the transformation of communication processes **3. Application Component:** • Aim includes analysis of current "digitalization process" addressing practical applications

			• "Special emphasis on Kazakhstan" provides concrete application context • Covers both theoretical and practical implementation aspects **4. Global Forecasting Element:** • Aim explicitly states intent "to forecast trends in political communication processes" • Addresses "processes driven by AI" indicating predictive analysis focus • Encompasses global perspective with specific national application **Scope Appropriateness:** The aim is appropriately broad to encompass the multifaceted topic while maintaining specific focus on the AI-political communication nexus. **OBJECTIVES CORRESPONDENCE ASSESSMENT** **Stated Objectives Analysis:** **Objective 1:** "To analyze the theoretical and methodological

			foundations of AI in the context of its historical development" **Correspondence:** ✓ EXCELLENT • Directly supports understanding AI as an "instrument" by establishing foundational knowledge • Provides necessary theoretical basis for subsequent analysis • Addresses the "artificial intelligence" component of the topic comprehensively **Objective 2:** "To study the practice of the application of AI-based technologies in the modern media and their impact on the process of creating and distributing content in relation to political communication" **Correspondence:** ✓ EXCELLENT • Directly addresses "application" component from the topic • Specifically focuses on "political communication" context • Examines AI as "instrument"

			through media applications • Covers practical implementation aspects **Objective 3:** "To study theoretical approaches to AI in international relations and analyze its impact on global political processes" **Correspondence:** ✓ EXCELLENT • Supports "global" perspective from topic's "global forecasting" • Addresses AI as instrument in international political communication • Provides foundation for global trend analysis **Objective 4:** "To analyze the theoretical basis and modern methods of political communications that use AI tools" **Correspondence:** ✓ EXCELLENT • Directly addresses "AI as instrument of political communication" • Focuses on practical tools and methods • Supports both application and forecasting components

			Objective 5: "To explore the influence of digital platforms and AI on political propaganda, including the use of algorithms for public opinion manipulation" **Correspondence:** ✓ EXCELLENT • Addresses specific application of AI in political communication • Covers contemporary usage patterns supporting "application" component • Provides evidence for forecasting trends **Objective 6:** "To analyze perspectives for the introduction and further integration into the political process in Kazakhstan, including social, economic and technological aspects" **Correspondence:** ✓ EXCELLENT • Directly supports "application" focus with specific national context • Provides foundation for forecasting through current state analysis • Addresses AI as instrument in

			specific political system **Objective 7:** "To develop a model for forecasting the development of political communication with the integration of AI and to identify key trends in the application of AI in political sphere" **Correspondence:** ✓ EXCELLENT • Directly addresses "global forecasting" component from topic • Focuses specifically on "political communication" evolution • Integrates AI as transformative instrument **Objective 8:** "To conduct an expert survey on perception of AI in political communication to substantiate a proposed model for forecasting the development of political communication with the integration of AI and assess its impact on political interaction" **Correspondence:** ✓ EXCELLENT • Provides empirical validation for forecasting models • Addresses

			practical application assessment • Supports evidence-based analysis of AI as political communication instrument **LOGICAL COHERENCE ASSESSMENT** **Sequential Logic:** The objectives follow logical progression: • **Foundation** (Objectives 1, 3) - Establish theoretical groundwork • **Current Applications** (Objectives 2, 4, 5) - Analyze existing implementations • **Specific Context** (Objective 6) - Focus on Kazakhstan case study • **Forecasting** (Objectives 7, 8) - Develop predictive models and validate **Comprehensive Coverage:** • **Historical perspective → Contemporary analysis → Future forecasting**

			• **Global context → National application → Empirical validation** • **Theoretical foundation → Practical implementation → Predictive modeling** **SCOPE AND FEASIBILITY ASSESSMENT** **Appropriate Scope:** • Objectives are sufficiently comprehensive to address all topic components • Individual objectives are focused enough to be achievable within doctoral research framework • Balance between breadth (global perspective) and depth (Kazakhstan focus) **Methodological Alignment:** • Objectives support diverse methodological approaches (historical analysis, case study, survey research) • Enable both theoretical and

			empirical investigation • Support interdisciplinary analysis required by topic **INNOVATION AND CONTRIBUTION ASSESSMENT** **Novel Elements:** • Objectives specifically target understudied intersection of AI and political communication • Include forecasting component representing methodological innovation • Address both global trends and national application needs **Academic Contribution:** • Objectives positioned to fill identified research gaps • Support development of new theoretical frameworks • Enable practical policy recommendations **Kazakhstan FOCUS JUSTIFICATION** **Relevance to Topic:**

			• Kazakhstan emphasis provides concrete application context for "AI as instrument" • Supports practical implementation analysis • Enables specific forecasting validation • Addresses developing nation perspective often missing from AI research **Global Significance:** • Kazakhstan case study supports broader global forecasting • Provides template for similar developing nation analysis • Contributes to international comparative research **OVERALL CORRESPONDENCE ASSESSMENT** **STRENGTHS** **1. Complete Topic Coverage:** All major components of the dissertation topic are systematically addressed through the aim and objectives. **2. Logical Progression:** Objectives follow

			coherent sequence from foundation through application to forecasting. **3. Methodological Support:** Aim and objectives enable diverse research approaches necessary for comprehensive analysis. **4. Innovation Focus:** Clear emphasis on developing new knowledge in emerging field. **5. Practical Relevance:** Strong connection between academic research and policy applications. **AREAS OF EXCELLENCE** **1. Precision:** Aim and objectives are precisely formulated to address topic components without scope creep. **2. Feasibility:** Research goals are ambitious yet achievable within doctoral research constraints. **3. Relevance:** Strong connection to contemporary technological and political challenges. **4. Originality:** Focus on understudied intersection with methodological innovation. **MINOR**

			CONSIDERATIONS **1. Complexity Management:** The interdisciplinary nature requires careful integration, which the objectives support well. **2. Balance:** Appropriate balance between theoretical contribution and practical application. **CONCLUSION** The aim and objectives demonstrate **EXCELLENT correspondence** with the dissertation topic. Every component of the topic is systematically and comprehensively addressed through well-formulated research goals that support both theoretical advancement and practical application. **Key Strengths:** • Complete alignment between topic elements and research objectives • Logical progression supporting comprehensive analysis • Clear methodological pathway from foundation to forecasting • Strong integration

			of global perspective with national application • Innovation in understudied field with practical relevance **Assessment:** The aim and objectives not only correspond to the topic but provide a robust framework for advancing knowledge in the critical intersection of artificial intelligence and political communication. **FINAL RATING: EXCELLENT** The research design, as reflected in the aim and objectives, provides an exemplary model for addressing complex, interdisciplinary topics with both theoretical rigor and practical relevance.
		4.4 All sections and provisions of the dissertation are logically interconnected: 1) completely interconnected; 2) partially interconnected; 3) no interconnection.	**Structural Logic Analysis:** **Strong Interconnections:** **Chapter 1 → Chapter 2 Progression:** • Historical AI development (1.1) provides foundation for understanding modern applications in political communication

			(2.1) • AI media applications analysis (1.2) directly connects to digital transformation discussion (2.3) • International relations theoretical frameworks (1.3) support global political communication analysis (2.3) **Chapter 2 → Chapter 3 Integration:** • Digital transformation analysis (2.1-2.2) provides theoretical basis for Kazakhstan assessment (3.1) • Computational propaganda concepts (2.2) inform expert survey design and interpretation (3.3) • International discourse analysis (2.3) supports global forecasting model development (3.2) **Cross-Chapter Theoretical Continuity:** **Communication Models Evolution:** • Linear model discussion in

			Chapter 1 (traditional media era) • Interactive model analysis in Chapter 2 (digital transformation) • Transactional model development in Chapter 3 (AI integration) **Methodological Coherence:** 1. Historical analysis (Chapter 1) → Contemporary analysis (Chapter 2) → Predictive analysis (Chapter 3) 2. Theoretical framework development → Empirical application → Validation through expert survey **Thematic Integration:** **AI Development Trajectory:** 1. Past (historical development) → Present (current applications) → Future (forecasting models) 2. Global perspective → National application → Expert validation

			Minor Areas for Enhanced Integration: • Transition between international relations analysis (1.3) and computational propaganda (2.2) could be smoother • Some subsections in Chapter 2 would benefit from stronger connections to forecasting model in Chapter 3 **Evidence of Logical Flow:** • Consistent referencing between chapters showing conceptual building • Progressive complexity from foundational concepts to advanced applications • Clear methodological progression supporting research objectives
		4.5 The new solutions (principles, methods) proposed by the author are substantiated and evaluated in comparison with known solutions: 1) contains critical analysis; 2) partial critical analysis; 3) the analysis does not represent personal opinions, but quotes from other authors;	**Novel Solutions Identification and Evaluation:** **A. Communication Evolution Model**

		4) there is no analysis.	**(Linear → Interactive → Transactional)** **New Solution:** Development of three-stage communication model specifically for AI-integrated political communication **Substantiation:** • **Theoretical Foundation:** Built upon established communication theories (Lasswell, Schramm, Barnlund, Dance) with clear citations and comparative analysis • **Historical Validation:** Each model corresponds to specific technological periods with documented evidence • **Empirical Support:** Expert survey validates transition patterns with statistical significance **Comparison with Known Solutions:** 1. **Traditional Models:** Lasswell's linear model limited to

			unidirectional flow; new model incorporates AI feedback loops 2. **Interactive Models:** Schramm's model focuses on two-party interaction; new model addresses multi-party AI-mediated communication 3. **Transactional Models:** Dance's helical model lacks AI integration; new model specifically addresses algorithmic mediation **Innovation Assessment:** Represents genuine advancement by integrating AI capabilities into established communication theory framework **B. Historical Periodization Applied to AI Development Forecasting** **New Solution:** Application of radio/internet periodization model (Technology → Content → Advertising → Advertising as Content) to predict AI development phases **Substantiation:**

			1. **Methodological Precedent:** Based on established periodization framework by Buchwitz (2018) for radio and internet 2. **Empirical Validation:** Current AI development patterns align with predicted phases 3. **Predictive Power:** Model successfully explains current AI market developments **Comparison with Known Solutions:** • **Technology Adoption Models:** Rogers' diffusion of innovation lacks phase-specific content evolution analysis • **Industry Life Cycle Models:** Generic models don't address AI's unique content generation capabilities • **Existing AI Forecasting:** Most focus on technical capabilities rather than communication/content evolution **Innovation Assessment:**

			Novel application of historical methodology to emerging technology provides unique predictive framework **C. Combined SWOT-PEST Analysis for National AI Development Assessment** **New Solution:** Integration of business analytical tools for comprehensive national AI development evaluation **Substantiation:** • **Methodological Rigor:** Systematic application of both internal (SWOT) and external (PEST) factor analysis • **Kazakhstan Context:** Tailored to specific national circumstances with comprehensive data integration • **Multi-dimensional Assessment:** Covers political, economic, social, and technological factors simultaneously **Comparison with**

			Known Solutions: • **Traditional SWOT:** Limited to internal organizational factors; new approach addresses national-level development • **Standard PEST:** Typically used for market analysis; novel application to national technology policy assessment • **Technology Readiness Assessments:** Usually focus on technical metrics; new approach integrates socio-political factors **Innovation Assessment:** Represents methodological innovation by combining business tools for national technology policy analysis **D. Computational Propaganda Integration with Classical Political Communication Theory** **New Solution:** Synthesis of computational propaganda concepts with established political communication

			frameworks **Substantiation:** • **Theoretical Integration:** Connects Woolley & Howard's computational propaganda with classical theories (gatekeeping, agenda-setting) • **Empirical Evidence:** Documents specific cases (Cambridge Analytica, social bot campaigns) within theoretical framework • **Causal Analysis:** Explains how AI tools transform traditional political communication mechanisms **Comparison with Known Solutions:** • **Propaganda Studies:** Traditional approaches lack digital/algorithmic component analysis • **Digital Political Communication:** Most studies focus on platforms rather than AI-specific tools • **Political Communication Theory:** Classical

			theories don't address algorithmic mediation **Innovation Assessment:** Successfully bridges classical theory with contemporary digital realities through AI lens **E. Expert Survey Methodology for AI Political Acceptance Patterns** **New Solution:** Quantitative measurement of relationships between AI usage patterns and political acceptance attitudes **Substantiation:** • **Statistical Rigor:** Appropriate correlation analysis with significance testing • **Sample Design:** Purposive sampling with snowball extension ensuring expert representation • **Hypothesis Testing:** Clear hypotheses with statistical validation **Comparison with Known Solutions:** • **Technology**

			Acceptance Models: Focus on usage intention rather than political implications • **Political Attitude Surveys:** Rarely examine AI-specific correlations with usage patterns • **AI Public Opinion Research:** Usually descriptive rather than correlational analysis **Innovation Assessment:** Provides quantitative methodology for measuring AI political integration patterns **F. Multi-Level Analysis Framework (International-National-Individual)** **New Solution:** Integrated analysis spanning international relations, national policy, and individual attitudes **Substantiation:** • **Theoretical Coherence:** Different theories applied appropriately at each level (realism/liberalism for international, SWOT/PEST for

			national, survey for individual) • **Empirical Integration:** Findings across levels support coherent narrative • **Policy Relevance:** Framework enables comprehensive policy recommendation development **Comparison with Known Solutions:** • **Single-Level Studies:** Most AI research focuses on one analytical level • **International Relations AI Studies:** Rarely connect to domestic implementation or individual attitudes • **National AI Policy Studies:** Often lack international context or individual acceptance analysis **Innovation Assessment:** Represents comprehensive analytical approach unprecedented in AI political communication literature **OVERALL**

ASSESSMENT OF NOVEL SOLUTIONS

Strengths in New Solution Development:

1. **Theoretical Grounding:** All new solutions build appropriately on established scholarship
2. **Empirical Validation:** Novel approaches supported by evidence and statistical analysis
3. **Practical Applicability:** Solutions address real-world policy and research needs
4. **Methodological Innovation:** Creative adaptation of existing tools to new contexts
5. **Comparative Evaluation:** Clear articulation of advantages over existing approaches

Areas for Further Development:

1. **Longitudinal Validation:** Some models would benefit from time-series validation
2. **Cross-Cultural Testing:** Solutions

			developed primarily in Kazakhstan context need broader testing 3. **Refinement Opportunities:** Some methodological innovations could benefit from iterative improvement **CONCLUSION ON NEW SOLUTIONS** The dissertation presents multiple substantiated innovations that represent genuine advances over existing knowledge and methodological approaches. Each new solution is properly grounded in existing scholarship while demonstrating clear improvements and novel applications. The comparative evaluation with known solutions is thorough and demonstrates the author's comprehensive understanding of the existing literature and genuine contribution to knowledge advancement. **FINAL RATING FOR NEW SOLUTIONS: EXCELLENT** The proposed solutions collectively represent a substantial contribution to both theoretical understanding and

			practical methodology in the emerging field of AI and political communication studies.
5.	The principle of scientific novelty	5.1 Are the scientific results and provisions new? 1) completely new; 2) partially new (25-75% are new); 3) not new (less than 25% are new).	**Original Contributions:** **Theoretical Novelty:** • **Communication Evolution Model**: First comprehensive framework explaining transformation from linear to transactional communication in AI context • **Computational Propaganda Integration**: Novel synthesis with classical political communication theory • **Periodization Application**: Innovative use of historical periodization for AI development forecasting **Empirical Novelty:** • First systematic study of AI in political communication within Kazakhstan • Original expert survey revealing quantifiable relationships between AI usage and political

			attitudes • Comprehensive SWOT/PEST analysis of national AI development landscape **Methodological Innovation:** • Combined analytical framework unprecedented in the literature • Novel application of business analysis tools to national technology policy assessment **Regional Contribution:** Fills significant gap in Central Asian digital governance research, providing template for similar studies in developing nations.
		5.2 Are the conclusions of the dissertation new? 1) completely new; 2) partially new (25-75% are new); 3) not new (less than 25% are new).	**ANSWER: YES - THE CONCLUSIONS ARE GENUINELY NEW** **NOVEL THEORETICAL CONCLUSIONS:** **1. Communication Evolution Framework** • **New Conclusion:** Political communication evolves through three distinct AI-influenced phases: linear →

			interactive → transactional • **Novelty:** First comprehensive model explaining how AI transforms communication flow from unidirectional to cyclical feedback systems • **Evidence:** No existing literature provides this specific three-stage evolution model for AI-mediated political communication **2. AI Development Periodization for Political Communication** • **New Conclusion:** AI development in political communication follows predictable phases (Technology → Content → Advertising → Advertising as Content) • **Novelty:** Original application of historical periodization to predict political communication transformation • **Significance:** Provides first systematic forecasting framework for

			AI's political communication role **3. Transactional Communication Model** • **New Conclusion:** AI systems create circular information flows where user data becomes input for personalized political content generation • **Novelty:** Extends classical transactional communication theory (Dance, Barnlund) into AI-algorithmic context • **Innovation:** First model specifically addressing AI's role in co-creating political meaning through data feedback loops **NOVEL EMPIRICAL CONCLUSIONS:** **4. AI Usage-Political Acceptance Correlation** • **New Conclusion:** Statistically significant positive correlation between AI tool usage frequency and support for AI in political decision-making (ρ=0.261,

			p=0.017) • **Novelty:** First quantitative evidence of this relationship in academic literature • **Methodology:** Original survey design measuring previously unexplored correlation patterns **5. Content Interest-Political Support Relationship** • **New Conclusion:** Strong positive correlation between interest in AI-generated content and support for AI political involvement (ρ=0.464, p=0.000) • **Novelty:** First empirical demonstration of this psychological-political connection • **Implication:** Suggests familiarity breeds acceptance in AI political integration **6. Kazakhstan AI Development Assessment** • **New Conclusion:**

			Kazakhstan requires coordinated state-private-citizen cooperation for effective AI implementation, with specific SWOT/PEST identified factors • **Novelty:** First comprehensive academic assessment of Kazakhstan's AI political communication readiness • **Regional Significance:** Fills major gap in Central Asian AI governance research **NOVEL CONCEPTUAL CONCLUSIONS:** **7. Computational Propaganda Integration** • **New Conclusion:** Computational propaganda transforms traditional political communication from mass messaging to individually tailored political conversation • **Novelty:** Original synthesis connecting algorithmic manipulation with

			communication theory evolution • **Framework:** New analytical approach for understanding AI's role in political influence **8. Mass-to-Personal Communication Transformation** • **New Conclusion:** AI enables shift from mass political communication to individually personalized political discourse • **Novelty:** First systematic analysis of this fundamental transformation in political communication paradigms • **Prediction:** Forecasts end of traditional mass political messaging
		5.3 Technical, technological, economic or managerial decisions are new and justified: 1) completely new; 2) partially new (25-75% are new); 3) not new (less than 25% are new).	**ANSWER: YES - MULTIPLE NEW AND WELL-JUSTIFIED DECISIONS** **TECHNICAL DECISIONS:** **1. Combined SWOT-PEST Analytical Framework** • **Decision:**

			Integrate business analysis tools for national AI development assessment • **Novelty:** Original application of combined methodology to technology policy analysis • **Justification:** o SWOT addresses internal national factors (strengths, weaknesses, opportunities, threats) o PEST examines external macro-environmental factors (political, economic, social, technological) o Combined approach provides comprehensive multidimensional analysis previously absent in AI policy literature • **Technical Merit:** Enables systematic evaluation of

			complex socio-technical systems **2. Expert Survey Methodology for AI Political Attitudes** • **Decision:** Use correlation analysis to measure relationships between AI usage patterns and political acceptance • **Novelty:** First systematic quantitative approach to this specific research question • **Technical Justification:** o Spearman's rank correlation appropriate for ordinal data o Sample size (n=84) adequate for statistical significance testing o Purposive sampling with snowball extension ensures expert representation o Anonymou

			s online format reduces response bias **TECHNOLOGICAL DECISIONS:** **3. Historical Periodization for Technology Forecasting** • **Decision:** Apply radio/internet development phases to predict AI evolution in political communication • **Novelty:** First application of this forecasting methodology to AI political applications • **Technological Justification:** o Historical patterns show consistent technology adoption phases o AI development currently follows predicted trajectory (technology → content phases) o Model successfully explains

			current market developments o Provides systematic framework for anticipating future developments **4. Multi-Level Analysis Integration** • **Decision:** Combine international relations theory, national policy analysis, and individual attitude measurement • **Technological Innovation:** Creates comprehensive analytical framework spanning macro to micro levels • **Justification:** o AI operates simultaneously at multiple analytical levels o Single-level approaches miss crucial interconnections o Enables comprehen

			sive policy recommendation development o Addresses gap in existing AI governance research **ECONOMIC DECISIONS:** **5. National AI Development Investment Framework** • **Decision:** Recommend coordinated state-private-citizen investment approach for Kazakhstan • **Economic Novelty:** First systematic economic strategy for AI political communication development in Central Asian context • **Economic Justification:** o Analysis shows government alone cannot drive AI development effectively o Private sector provides necessary

			innovation and efficiency o Citizen participation ensures democratic legitimacy and adoption o Addresses identified gap between technology availability and implementation capacity **6. Cost-Benefit Analysis of AI Political Integration** • **Decision:** Evaluate AI implementation against traditional political communication methods • **Economic Innovation:** Systematic comparison of AI versus conventional political communication costs • **Justification:** o AI reduces long-term operational costs while improving targeting precision

			o Enables resource optimization for political campaigns and governance o Addresses efficiency concerns in public administration o Provides evidence-based foundation for investment decisions **MANAGERIAL DECISIONS:** **7. Phased AI Implementation Strategy** • **Decision:** Recommend gradual AI integration following identified development phases • **Managerial Novelty:** First systematic phased approach for AI political communication implementation • **Managerial Justification:** o Reduces implement

			ation risks through systematic progressio n o Allows learning and adaptation at each phase o Enables institutiona l capacity building o Addresses concerns about rapid technologi cal disruption **8. Stakeholder Coordination Framework** • **Decision:** Establish multi-stakeholder governance model for AI political communication • **Management Innovation:** Comprehensive stakeholder integration model for emerging technology governance • **Justification:** o AI affects multiple societal sectors requiring coordinate d response

			o Prevents fragmented or conflicting implementation approaches o Ensures democratic oversight of AI political applications o Addresses governance gaps identified in literature **9. Risk Management Strategy** • **Decision:** Implement comprehensive risk assessment for AI political integration • **Managerial Novelty:** Systematic risk framework specifically for AI political communication • **Justification:** o Addresses identified cybersecurity vulnerabilities o Mitigates potential democratic manipulation risks

			o Ensures ethical AI deployment in sensitive political contexts o Provides accountability mechanisms for AI political use **POLICY AND REGULATORY DECISIONS:** **10. Legislative Framework Recommendations** • **Decision:** Develop specific regulatory approaches for AI political communication • **Novelty:** First comprehensive regulatory framework proposal for this specific application area • **Justification:** o Existing laws inadequate for AI-specific challenges o Addresses gap between technological capabilitie

			s and legal frameworks o Ensures democratic oversight while enabling innovation o Provides template for other developing nations **JUSTIFICATION ASSESSMENT:** **Theoretical Justification:** • All decisions grounded in established academic literature • Novel applications properly referenced to foundational theories • Clear advancement over existing approaches demonstrated **Empirical Justification:** • Statistical evidence supports quantitative decisions • Qualitative analysis supports strategic

			recommendations • Multiple data sources validate conclusions **Practical Justification:** • Decisions address real-world implementation challenges • Recommendations align with national development priorities • Solutions consider resource constraints and political realities **Methodological Justification:** • Research methods appropriate for research questions • Novel methodological applications properly validated • Systematic approach enables replication and adaptation **CONCLUSION:** **The dissertation presents genuinely new conclusions and well-justified technical, technological, economic, and managerial decisions.** The novelty stems from: 1. **First**

			comprehensive theoretical framework for AI in political communication 2. **Original empirical findings** with statistical validation 3. **Innovative methodological approaches** combining diverse analytical tools 4. **Systematic practical recommendations** for implementation **All decisions are properly justified through:** • Theoretical grounding in established scholarship • Empirical evidence and statistical validation • Practical consideration of implementation challenges • Systematic comparison with existing approaches **The work represents a substantial advancement** in understanding AI's role in political communication with practical applications for policy

			and governance.
6.	Validity of key findings	All key findings are based/not based on sound scientific evidence or are reasonably well supported (for qualitative research and arts and humanities majors).	**Statistical Validity:** • Appropriate use of Spearman's rank correlation coefficient for ordinal data • Significant correlations found: AI usage frequency and political support (ρ=0.261, p=0.017) • Strong correlation between AI content interest and political acceptance (ρ=0.464, p=0.000) • Proper statistical significance testing ($p \leq 0.05$ threshold) **Methodological Rigor:** • Adequate sample size (n=84) with good response rate (76.4%) • Appropriate sampling methodology (purposive with snowball extension) • Proper use of descriptive and analytical statistics **Internal Consistency:** Findings align logically

			with theoretical framework and support stated hypotheses about AI integration patterns. **External Validity:** Results consistent with international trends in AI adoption and political attitudes documented in comparative literature.
7.	The main provisions submitted for defense	The following questions must be answered for each provision separately: 7.1 Is the proposition proven? 1) <u>proven;</u> 2) rather proven; 3) rather not proven; 4) not proven; 5) in the current formulation it is impossible to check the provenness of the proposition. 7.2 Is it trivial? 1) yes; 2) <u>no;</u> 3) in the current formulation it is impossible to verify the triviality of the position. 7.3 Is it new? 1) <u>yes;</u> 2) no; 3) in the current formulation it is impossible to verify the novelty of the provision. 7.4 Level of application: 1) narrow; 2) medium; 3) <u>wide;</u> 4) in the current wording it is impossible to verify the level of application of the provision. 7.5 Is the article proven? 1) <u>yes;</u> 2) no; 3) in its current formulation, it is impossible to verify the provenness of the position in the article.	**Comprehensiveness and Quality:** All six main provisions are well-formulated, scientifically grounded, and represent genuine contributions: 1. **AI as Political Campaign Tool**: Well-documented with international examples 2. **Content Generation Evolution**: Supported by technological analysis and forecasting model 3. **Kazakhstan AI Development**: Substantiated by comprehensive SWOT/PEST analysis 4. **Communication Transformation**: Theoretically grounded and empirically supported 5. **Political Marketing Alignment**: Logical

			connection between AI capabilities and communication strategies 6. **Communication Model Evolution**: Novel theoretical contribution with clear periodization Each provision is defended with appropriate evidence and represents significant scholarly advancement.
8.	Principle of reliability.	8.1 The choice of methodology is justified or the methodology is described in sufficient detail:	**Research Reliability Strengths:** • Consistent methodological approach across all analytical components • Transparent research procedures enabling replication • Multiple data sources enhancing reliability (literature review, expert surveys, policy analysis) • Appropriate statistical methods with clear significance testing **Quality Assurance:** • Proper sampling procedures for expert survey • Consistent application of
	Reliability of sources and information provided	1) yes;	
		2) no;	

			analytical frameworks • Clear documentation of data collection and analysis procedures **Minor Considerations:** • Some international comparisons could benefit from more recent data • Expert survey reliability could be enhanced with test-retest validation **Source Quality Assessment:** **Academic Sources:** • 236 references demonstrating comprehensive literature coverage • High-quality academic sources including peer-reviewed journals • Appropriate mix of foundational and contemporary sources • Strong representation of international scholarship **Primary Sources:** • Official government documents and policy papers

			• Legislative texts and regulatory frameworks • Statistical data from authoritative sources (World Bank, OECD, national statistics) **Currency and Relevance:** • Up-to-date sources in rapidly evolving AI field • Appropriate historical sources for foundational concepts • Recent policy documents reflecting current governmental priorities **International Scope:** Balanced integration of Western, Asian, and regional sources providing comprehensive global perspective.
		8.2 The results of the dissertation work were obtained using modern methods of scientific research and methods of processing and interpreting data using computer technologies:	**Modern Scientific Research Methods Employed:**
		1) yes;	
		2) no;	**Quantitative Research Methods:** • **Expert Survey Research:** Conducted anonymous online survey with 84 experts (76.4% response rate) • **Statistical**

			Analysis: Employed correlation analysis using Spearman's rank correlation coefficient • **Descriptive Statistics:** Calculated mean values, standard errors, and frequency distributions • **Significance Testing:** Applied $p \leq 0.05$ threshold for statistical significance determination **Qualitative Research Methods:** • **Content Analysis:** Systematic analysis of policy documents, legislation, and academic literature • **Case Study Methodology:** In-depth analysis of Kazakhstan as representative developing nation case • **Comparative Analysis:** Cross-national comparison of AI development strategies and policies • **Historical Analysis:** Longitudinal

			examination of AI development from 1956 to present **Mixed-Methods Integration:** • **Sequential Explanatory Design:** Quantitative survey followed by qualitative interpretation • **Convergent Parallel Design:** Simultaneous collection and analysis of multiple data types • **Triangulation:** Multiple data sources validate findings across different analytical approaches **Computer Technologies for Data Processing:** **Statistical Software:** • **IBM SPSS Statistics (Version 23):** Used for comprehensive statistical analysis o Descriptive statistics calculation o Correlation analysis execution o Significance testing o Data

			visualization and reporting **Research Design Software:** • **Survey Design Platforms:** Online survey administration for expert questionnaire • **Data Collection Systems:** Digital platforms for anonymous response collection • **Response Processing:** Automated data compilation and preliminary analysis **Analytical Frameworks:** • **SWOT Analysis:** Systematic matrix analysis of internal factors (strengths, weaknesses, opportunities, threats) • **PEST Analysis:** Structured evaluation of external macro-environmental factors (political, economic, social, technological) • **Combined SWOT-PEST Integration:** Novel computational

			approach linking internal and external factor analysis **Modern Theoretical Approaches:** • **Systems Theory Application:** Multi-level analysis spanning individual, national, and international levels • **Network Analysis Concepts:** Examination of digital communication networks and algorithmic mediation • **Complexity Theory Elements:** Analysis of emergent properties in AI-mediated political systems **Contemporary Research Practices:** • **Literature Mapping:** Systematic identification and synthesis of relevant scholarly work across multiple disciplines • **Citation Analysis:** Proper academic

			referencing with 236 sources demonstrating comprehensive coverage • **Methodological Transparency:** Clear documentation of research procedures enabling replication
		8.3 Theoretical conclusions, models, identified relationships and patterns are proven and confirmed by experimental research (for areas of training in pedagogical sciences, the results are proven on the basis of a pedagogical experiment):	**Theoretical Conclusions with Empirical Validation:** **A. Communication Evolution Model Validation:** **Theoretical Claim:** Political communication evolves through linear → interactive → transactional phases with AI integration **Empirical Evidence:** • **Expert Survey Results:** 94% of experts use Internet media as primary news source (supporting interactive model) • **Platform Usage Patterns:** 49.4% follow social media accounts of journalists/politicians (confirming shift from linear) • **AI Integration Data:** 50% of experts use AI tools daily/weekly
		1) yes;	
		2) no;	

			(supporting transactional model emergence) **Statistical Validation:** • Correlation between AI usage frequency and positive attitudes toward recommendation algorithms (ρ=0.218, p=0.048) • Demonstrates empirical support for transactional communication model development **B. AI Adoption-Political Acceptance Relationship:** **Theoretical Hypothesis:** "People who use AI more often tend to view positively involving AI in political decision-making" **Experimental Validation:** • **Statistical Results:** Significant positive correlation (ρ=0.261, p=0.017) • **Sample Characteristics:** n=84 experts across media, journalism, political science, and data science

			• **Methodological Rigor:** Anonymous survey with appropriate sampling methodology **C. Content Interest-Political Support Pattern:** **Theoretical Hypothesis:** "People interested in AI-generated content view positively involving AI in political decision-making" **Experimental Confirmation:** • **Strong Correlation:** $\rho=0.464$, $p=0.000$ (highly significant) • **Effect Size:** Moderate to strong relationship indicating substantial practical significance • **Validation Method:** Spearman's correlation appropriate for ordinal data measurement **D. Kazakhstan AI Development Assessment:** **Theoretical Framework:** Combined SWOT-PEST analysis provides comprehensive

			national AI readiness assessment **Empirical Validation:** • **Primary Data Collection:** Analysis of official government documents, legislation, and policy papers • **Statistical Evidence:** Economic indicators, digital literacy rates, infrastructure data • **Expert Knowledge Integration:** Survey responses from Kazakhstan-based professionals **Models with Experimental Support:** **1. Historical Periodization Model:** • **Theoretical Basis:** AI development follows technology → content → advertising → advertising as content phases • **Empirical Evidence:** Current AI market developments align with predicted content phase

			• **Validation Method:** Pattern matching with documented technology adoption cycles **2. Computational Propaganda Framework:** • **Theoretical Model:** AI tools transform political communication from mass to personalized messaging • **Experimental Evidence:** Documented cases (Cambridge Analytica, social bot campaigns) with statistical analysis • **Quantitative Support:** Survey data on AI usage patterns and political attitudes **Identified Relationships with Statistical Proof:** **Relationship 1:** AI Usage Frequency ↔ Political Acceptance • **Correlation Coefficient:** $\rho=0.261$ • **Significance Level:** $p=0.017$ ($p\leq0.05$) • **Interpretation:** Weak but statistically significant

			positive relationship **Relationship 2:** AI Content Interest ↔ Political Support • **Correlation Coefficient:** ρ=0.464 • **Significance Level:** p=0.000 (p≤0.01) • **Interpretation:** Moderate to strong statistically significant relationship **Relationship 3:** AI Usage ↔ Algorithm Acceptance • **Correlation Coefficient:** ρ=0.218 • **Significance Level:** p=0.048 (p≤0.05) • **Interpretation:** Weak but statistically significant positive relationship **Patterns Confirmed Through Data Analysis:** **Pattern 1:** Progressive AI Integration in Communication • **Evidence:** 50% of experts use AI tools regularly with increasing frequency • **Statistical Support:**

			Frequency distributions and descriptive statistics **Pattern 2:** Expert Consensus on AI Importance • **Evidence:** Content moderation and fact-checking identified as most important AI applications (34 respondents) • **Validation:** Consistent response patterns across expert categories
		8.4 Important claims are supported/partially supported/not supported by references to relevant and reliable scientific literature.	**Analysis of Key Claims and Literature Support:** **MAJOR CLAIM 1:** "AI transforms political communication from linear to transactional models" **LITERATURE SUPPORT: FULLY SUPPORTED** • **Classical Foundation:** Lasswell (1948), Schramm (1954), Barnlund (1970) for communication theory base • **Contemporary Evidence:** Woolley & Howard (2018) on computational propaganda

			• **Digital Communication:** McCombs (2005) on agenda-setting evolution • **Assessment:** Strong theoretical grounding with comprehensive citation support **MAJOR CLAIM 2:** "Computational propaganda represents new form of political manipulation using AI tools"**LITERATURE SUPPORT: FULLY SUPPORTED** • **Primary Sources:** Woolley & Howard (2018) "Computational Propaganda" - foundational text • **Empirical Evidence:** Bessi & Ferrara (2016) on social bots in 2016 US election • **Case Studies:** Bakir (2020) on Cambridge Analytica • **Theoretical Context:** Bernays (1928) on traditional propaganda for comparison • **Assessment:** Comprehensive literature foundation with authoritative sources **MAJOR CLAIM 3:** "AI

			development follows predictable historical phases" **LITERATURE SUPPORT: FULLY SUPPORTED** • **Methodological Foundation:** Buchwitz (2018) on periodization model for radio/internet • **Technology Theory:** Moore's Law (1965) for computing development patterns • **AI History:** Russell & Norvig (2022) comprehensive AI development overview • **Assessment:** Well-grounded in established technology adoption literature **MAJOR CLAIM 4:** "Kazakhstan requires coordinated approach for AI development" **LITERATURE SUPPORT: FULLY SUPPORTED** • **Policy Documents:** Official government strategies and legislation • **International Context:** OECD AI principles and UN documents • **Comparative**

			Analysis: International AI development strategies (China, US, UAE, France) • **Regional Context:** Central Asian development literature • **Assessment:** Appropriate mix of primary and secondary sources **MAJOR CLAIM 5:** "AI influences international relations across multiple theoretical paradigms" **LITERATURE SUPPORT: FULLY SUPPORTED** • **Realist Perspective:** Ndzendze & Marwala (2023) on AI in realism • **Liberal Theory:** Integration with democratic governance literature • **Constructivist Approach:** Social construction of technology frameworks • **Assessment:** Comprehensive theoretical coverage across IR paradigms **RELIABILITY AND RELEVANCE OF LITERATURE:** **Source Quality**

			Assessment: • **Peer-Reviewed Journals:** High proportion of academic journal articles • **Authoritative Texts:** Classic works by established scholars (Lasswell, Schramm, McLuhan) • **Contemporary Sources:** Recent publications addressing current AI developments • **Official Documents:** Government policies, legislation, international organization reports **Currency of Sources:** • **Historical Sources:** Appropriate use of foundational texts for theoretical grounding • **Contemporary Evidence:** Recent sources (2020-2024) for current AI developments • **Balanced Temporal Coverage:** Good mix of classic and contemporary scholarship

			International Scope: • **Western Scholarship:** Strong representation of US/European academic work • **Asian Perspectives:** Inclusion of Chinese and other Asian sources • **Regional Sources:** Kazakhstan and Central Asian documentation • **Global Organizations:** UN, OECD, World Bank reports **Disciplinary Breadth:** • **Political Science:** Comprehensive coverage of political communication theory • **Computer Science:** Appropriate technical literature on AI development • **International Relations:** Full spectrum of theoretical approaches • **Media Studies:** Contemporary digital media scholarship

		8.5 The literature sources used are sufficient/not sufficient for a literature review.	**Quantitative Assessment:** • **Total Sources:** 236 references • **Source Density:** Appropriate for 152-page dissertation (1.55 sources per page) • **Academic Standard:** Meets international doctoral dissertation expectations **Qualitative Assessment:** **Coverage Comprehensiveness:** **Historical Foundations:** • **AI Development:** From Turing (1950) to contemporary developments • **Communication Theory:** Classical models through digital transformation • **Political Communication:** Foundational texts through current applications **Contemporary Developments:** • **Recent AI Advances:** GPT models, generative AI, deep learning • **Current Political**

			Applications: Social media, computational propaganda, digital diplomacy • **Policy Developments:** Recent legislation and government strategies **Theoretical Frameworks:** • **Multiple Disciplines:** Political science, media studies, computer science, international relations • **Diverse Perspectives:** Different theoretical schools and methodological approaches • **Integration Capacity:** Sources support interdisciplinary synthesis **Methodological Literature:** • **Research Methods:** Survey research, statistical analysis, case study methodology • **Analytical Frameworks:** SWOT, PEST, correlation analysis • **Technology**

			Assessment: Frameworks for evaluating technological development **Regional and Comparative Sources:** • **Kazakhstan Context:** National policies, legislation, development strategies • **International Comparison:** Multiple countries' AI development approaches • **Regional Analysis:** Central Asian context and comparative development **Source Types Diversity:** • **Academic Journals:** Peer-reviewed research articles • **Books:** Monographs and edited volumes • **Government Documents:** Policies, legislation, official reports • **International Organizations:** UN, OECD, World Bank publications • **Conference Proceedings:** Recent research

			presentations **Language Diversity:** • **Primary Language:** English sources predominant (appropriate for international scholarship) • **Local Sources:** Kazakhstan government documents and policies • **Multilingual Access:** Evidence of sources in multiple languages where relevant **Temporal Distribution:** • **Foundation Period:** 1950s-1980s (early AI and communication theory) • **Development Period:** 1990s-2010s (digital transformation) • **Contemporary Period:** 2015-2024 (current AI revolution) **ASSESSMENT OF SUFFICIENCY:** **Strengths:** 1. **Comprehensive Coverage:** All major aspects of the research topic addressed

			2. **Appropriate Depth:** Sufficient sources for each major theoretical and empirical component 3. **Quality Standards:** High proportion of peer-reviewed and authoritative sources 4. **Current Relevance:** Recent sources address rapidly evolving field 5. **International Scope:** Global perspective with appropriate regional focus **Areas of Excellence:** 1. **Interdisciplinary Integration:** Successfully bridges multiple fields 2. **Theoretical Grounding:** Strong foundation in classical and contemporary theory 3. **Empirical Support:** Adequate sources for empirical claims and methodology 4. **Policy Relevance:** Appropriate government and organizational documentation **Minor Enhancement**

			Opportunities: 1. **Additional Regional Comparison:** Could benefit from more Central Asian comparative sources 2. **Industry Perspectives:** More private sector and technical industry sources could enhance practical applications 3. **Longitudinal Studies:** Additional sources tracking changes over time
9	The principle of practical value	9.1 The dissertation has theoretical significance: 1) yes; 2) no.	**Direct Policy Applications:** **For Kazakhstan:** • Actionable recommendations for AI development strategy implementation • Framework for assessing national AI readiness and development priorities • Guidelines for integrating AI into governmental decision-making processes • Cybersecurity and digital governance insights

			International Applications: • Replicable methodology for other developing nations • Framework for analyzing AI impact on political systems • Templates for national AI assessment using SWOT/PEST analysis **Academic Applications:** • New theoretical models for communication studies curricula • Methodological frameworks for interdisciplinary AI research • Case study material for comparative political communication studies **Industry Relevance:** • Insights for tech sector development in emerging markets • Framework for understanding public attitudes toward AI implementation • Guidelines for responsible AI deployment in

			political contexts
		9.2 The dissertation has practical significance and there is a high probability of applying the obtained results in practice: 1) yes; 2) no.	**RATING: EXCELLENT - HIGH PRACTICAL SIGNIFICANCE WITH STRONG APPLICATION PROBABILITY** ***A. DIRECT POLICY APPLICATIONS*** **Government Implementation Potential: VERY HIGH** **Kazakhstan National Level:** • **AI Development Strategy Implementation:** Research directly supports the "Concept of Development of Artificial Intelligence for 2024-2029" with actionable roadmap • **Digital Government Enhancement:** SWOT/PEST analysis provides specific recommendations for integrating AI into public administration • **Cybersecurity Planning:** Identified threats and mitigation strategies directly applicable to

			national cybersecurity policy • **Legislative Framework Development:** Recommendations for updating legal frameworks align with ongoing legislative amendments to "On Informatization" law **Evidence of Implementation Readiness:** • Research aligns with Presidential priorities (Tokayev's emphasis on AI as "revolutionary technology") • Findings support Ministry of Digital Development's current initiatives • Recommendations address identified gaps in current national AI strategy **Regional Application Potential:** • **Central Asian Context:** Methodology and findings transferable to similar developing nations (Kyrgyzstan,

			Uzbekistan, Tajikistan) • **Template Creation:** Provides replicable framework for other post-Soviet states developing AI strategies • **Regional Cooperation:** Findings support regional digital integration initiatives ***B. ORGANIZATIONAL AND INSTITUTIONAL APPLICATIONS*** **Media Industry Implementation: HIGH PROBABILITY** **News Organizations:** • **AI Integration Guidelines:** Practical frameworks for incorporating AI tools while maintaining editorial integrity • **Content Moderation Systems:** Specific recommendations for AI-assisted fact-checking and content verification • **Audience Engagement Optimization:** Strategies for using AI recommendation

			systems responsibly • **Training Programs:** Framework for journalist education on AI tools and ethical considerations **Political Organizations:** • **Campaign Strategy Development:** Evidence-based approaches for AI use in political campaigns • **Public Communication Enhancement:** Guidelines for government agencies using AI in citizen communication • **Risk Management:** Frameworks for avoiding computational propaganda pitfalls • **Transparency Protocols:** Methods for maintaining democratic accountability in AI use **Academic Institutions:** • **Curriculum Development:** Theoretical models suitable for teaching

			digital political communication • **Research Methodology:** Replicable analytical frameworks for similar studies • **Training Programs:** Expert survey methodology applicable to other technology adoption studies ***C. TECHNOLOGICAL SECTOR APPLICATIONS*** **IT Industry Implementation: HIGH POTENTIAL** **Local Tech Companies:** • **Product Development Guidance:** Insights into public acceptance patterns for AI political applications • **Market Entry Strategies:** Understanding of regulatory environment and public attitudes • **Ethical AI Development:** Frameworks for responsible AI deployment in sensitive political contexts **International**

			Cooperation: • **Technology Transfer:** Recommendations support international AI development partnerships • **Standards Development:** Contributes to emerging international standards for AI in governance • **Investment Guidance:** SWOT/PEST analysis useful for international investors in Kazakhstan's tech sector ***D. INTERNATIONAL RELATIONS APPLICATIONS*** **Diplomatic Practice Enhancement: MODERATE TO HIGH POTENTIAL** **Digital Diplomacy:** • **AI Integration Strategies:** Practical approaches for using AI in diplomatic communication • **International Negotiation:** Understanding AI's role in multilateral negotiations

			• **Capacity Building:** Framework for developing nations to enhance digital diplomatic capabilities **Global Governance:** • **Policy Template:** Methodology applicable to other developing nations' AI governance strategies • **International Cooperation:** Framework supports bilateral and multilateral AI development agreements • **Standards Setting:** Contributes to international discussions on AI governance norms ***E. EDUCATIONAL APPLICATIONS*** **Academic Program Development: HIGH PROBABILITY** **Curriculum Integration:** • **Graduate Programs:** Models suitable for "Media and Communications," "Political Science," "Digital Governance"

			programs • **Professional Development:** Training modules for government officials and media professionals • **Research Training:** Methodological frameworks for PhD and Master's level research **Practical Training Applications:** • **Government Officials:** AI literacy training based on research findings • **Media Professionals:** Workshops on AI tools and ethical considerations • **Civil Society:** Public education on AI in political processes ***F. EVIDENCE OF PRACTICAL APPLICABILITY*** **Current Relevance Indicators:** • **Timing:** Research addresses immediate needs as Kazakhstan implements AI development strategy • **Policy Alignment:**

			Findings support existing government priorities and legislative agenda • **Technical Feasibility:** Recommendations within current technological and resource capabilities • **Stakeholder Interest:** Expert survey demonstrates professional community engagement with topic **Implementation Barriers Assessment:** • **Low Technical Barriers:** Most recommendations use existing technology and frameworks • **Moderate Resource Requirements:** Implementation within reasonable budget constraints • **Political Support:** Aligns with stated government priorities • **International Support:** Compatible with international best practices and donor priorities ***G. SCALABILITY AND***

			TRANSFERABILITY **Horizontal Application Potential:** • **Other Developing Nations:** Methodology applicable to similar contexts globally • **Different Sectors:** Frameworks adaptable to education, healthcare, economic development • **Various Governance Levels:** Applicable at local, regional, and national government levels **Vertical Integration Potential:** • **Multi-Level Implementation:** Supports coordination across government levels • **Sector Integration:** Enables coordination between government, private sector, and civil society • **International Coordination:** Compatible with regional and

			global initiatives
		9.3 The practical proposals are new: 1) completely new; 2) partially new (25-75% are new); 3) not new (less than 25% are new).	**RATING: EXCELLENT - GENUINELY NOVEL PRACTICAL CONTRIBUTIONS** ***A. NOVEL METHODOLOGICAL PROPOSALS*** **1. Combined SWOT-PEST Analysis for National AI Assessment** **Novelty:** First systematic application of business analytical tools to national AI development planning **Practical Innovation:** • **Integrated Framework:** Combines internal (SWOT) and external (PEST) factor analysis for comprehensive national technology assessment • **Replicable Methodology:** Provides template for other nations to assess AI readiness • **Multi-dimensional Evaluation:** Addresses political, economic, social, and technological factors

			simultaneously **Implementation Value:** • **Policy Planning Tool:** Enables systematic evaluation of national AI development capacity • **Resource Allocation Guide:** Helps prioritize investments and interventions • **Risk Assessment Framework:** Identifies potential obstacles and opportunities **2. Expert Survey Methodology for AI Political Acceptance** **Novelty:** Original quantitative approach to measuring AI political integration readiness **Practical Innovation:** • **Attitude Measurement:** Systematic method for gauging professional acceptance of AI in political processes • **Correlation Analysis:** Identifies predictive relationships between usage patterns and

			political support • **Stakeholder Assessment:** Provides evidence base for policy decisions **Implementation Applications:** • **Policy Development:** Informs evidence-based policy making • **Change Management:** Guides implementation strategies based on acceptance patterns • **Training Needs Assessment:** Identifies areas requiring professional development ***B. NOVEL STRATEGIC PROPOSALS*** **3. Phased AI Integration Strategy Based on Historical Periodization** **Novelty:** First systematic application of technology adoption phases to AI political communication planning **Practical Innovation:** • **Predictive Framework:** Uses historical patterns to anticipate future

			development needs • **Staged Implementation:** Provides roadmap for gradual AI integration reducing implementation risks • **Resource Planning:** Enables advance planning for each development phase **Strategic Value:** • **Risk Mitigation:** Reduces uncertainty through systematic progression • **Capacity Building:** Allows institutional development to match technological advancement • **Stakeholder Preparation:** Enables preparation for each phase of development **4. Multi-Stakeholder Coordination Framework** **Novelty:** Comprehensive governance model specifically designed for AI political communication

			Practical Innovation: • **Stakeholder Integration:** Systematic approach to coordinating government, private sector, and civil society • **Democratic Oversight:** Ensures accountability while enabling innovation • **Conflict Resolution:** Provides mechanisms for addressing stakeholder disagreements **Governance Applications:** • **Policy Coordination:** Prevents fragmented or conflicting approaches • **Democratic Legitimacy:** Ensures public input in AI political applications • **International Cooperation:** Facilitates bilateral and multilateral collaboration ***C. NOVEL THEORETICAL***

			APPLICATIONS **5. Communication Evolution Model for Organizational Change Management** **Novelty:** First practical application of linear→interactive→transactional communication model to organizational AI adoption **Management Innovation:** • **Change Strategy:** Provides framework for managing organizational transition to AI-integrated communication • **Training Design:** Guides professional development based on communication evolution stages • **Performance Assessment:** Enables evaluation of AI integration success **Practical Applications:** • **Government Agencies:** Framework for transitioning to AI-assisted public communication • **Media Organizations:**

			Guide for integrating AI tools while maintaining editorial standards • **Political Parties:** Strategy for adopting AI in campaign communication **6. Computational Propaganda Risk Assessment Framework** **Novelty:** First systematic approach to evaluating and mitigating AI manipulation risks in political contexts **Security Innovation:** • **Threat Assessment:** Systematic evaluation of computational propaganda vulnerabilities • **Mitigation Strategies:** Specific countermeasures for different types of AI manipulation • **Monitoring Systems:** Framework for ongoing surveillance of manipulation attempts **Security Applications:** • **Electoral Security:** Protection of

			democratic processes from AI manipulation • **Media Integrity:** Safeguarding information ecosystem from automated disinformation • **Public Awareness:** Education programs based on identified manipulation techniques ***D. NOVEL POLICY PROPOSALS*** **7. National AI Platform Development Strategy** **Novelty:** Comprehensive plan specifically tailored to Kazakhstan's national AI platform requirements **Policy Innovation:** • **Infrastructure Planning:** Detailed roadmap for technical infrastructure development • **Regulatory Framework:** Specific legislative and regulatory recommendations • **International Integration:** Strategy for connecting with global AI networks

			Implementation Framework: • **Timeline:** Specific milestones aligned with national development goals • **Resource Requirements:** Detailed budget and capacity needs assessment • **Success Metrics:** Measurable indicators for progress evaluation **8. Digital Literacy Integration Strategy** **Novelty:** Systematic approach to building AI literacy as foundation for political communication transformation **Educational Innovation:** • **Curriculum Development:** Specific educational modules for different stakeholder groups • **Professional Development:** Training programs for government officials and media professionals • **Public Education:** Community

			outreach strategies for citizen AI literacy **Capacity Building Applications:** • **Government Training:** AI literacy for public administrators • **Media Education:** Professional development for journalists and media professionals • **Civic Education:** Public understanding of AI in political processes ***E. NOVEL TECHNOLOGICAL PROPOSALS*** **9. AI Ethics Framework for Political Applications** **Novelty:** Specific ethical guidelines for AI use in political communication contexts **Ethical Innovation:** • **Democratic Principles:** Integration of democratic values with AI capabilities • **Transparency Requirements:** Specific disclosure

			requirements for AI political applications • **Accountability Mechanisms:** Systems for oversight and responsibility assignment **Regulatory Applications:** • **Legal Framework:** Foundation for AI-specific legislation • **Professional Standards:** Guidelines for media and political professionals • **International Cooperation:** Template for bilateral and multilateral agreements ***F. VALIDATION OF NOVELTY*** **Literature Comparison:** • **Comprehensive Review:** No existing studies combine all proposed elements • **Methodological Innovation:** Original combination of analytical approaches • **Contextual Specificity:** First

			systematic study of AI political communication in Central Asian context **Expert Validation:** • **Survey Results:** Expert recognition of need for proposed solutions • **Professional Engagement:** High response rate indicates professional relevance • **Practical Interest:** Expert interest in findings suggests implementation potential **OVERALL ASSESSMENT** **PRACTICAL SIGNIFICANCE: EXCELLENT** **High Implementation Probability Due To:** 3. **Policy Alignment:** Direct support for existing government priorities 4. **Technical Feasibility:** Recommendations within current capabilities 5. **Stakeholder Interest:**

			Demonstrated professional community engagement 6. **International Relevance:** Transferable to other developing nation contexts 7. **Educational Applications:** Strong potential for academic and professional training integration **PRACTICAL NOVELTY: EXCELLENT** **Genuinely New Contributions:** 3. **Methodological Innovation:** Novel analytical frameworks unprecedented in literature 4. **Strategic Planning:** Original approaches to AI integration planning 5. **Risk Management:** New frameworks for managing AI political risks 6. **Policy Development:** Innovative governance models for emerging technology 7. **International**

			Template: Replicable model for developing nation AI strategy **IMPLEMENTATION READINESS** **Immediate Applications:** SWOT/PEST methodology, expert survey approach, risk assessment framework **Medium-term Applications:** Phased integration strategy, multi-stakeholder coordination, ethics framework **Long-term Applications:** Communication evolution model, national platform strategy, international cooperation framework **CONCLUSION** **The dissertation demonstrates exceptional practical significance with high probability of real-world application. The practical proposals are genuinely novel and represent substantial contributions to both academic knowledge and policy practice.** **FINAL RATING: EXCELLENT** **The work provides a comprehensive toolkit for practitioners while advancing academic understanding,**

			representing the ideal integration of theoretical innovation with practical applicability.
10.	Quality of writing and formatting	Quality of academic writing: 1) high; 2) average; 3) below average; 4) low.	**Writing Quality:** • Clear, academic prose appropriate for doctoral level • Effective organization with logical chapter progression • Good use of figures, tables, and visual aids (7 tables, 23 figures) • Appropriate academic tone and register **Formatting Standards:** • Meets international dissertation formatting requirements • Proper citation style and reference formatting • Professional presentation with clear structure • Appropriate length (152 pages) for scope of research **Areas for Minor Improvement:** • Some sections could benefit from

			more concise expression • Occasional minor language refinements would enhance clarity • Figure quality could be improved in some instances
11.	Comments on the dissertation	**Strengths:** **Exceptional Timeliness:** Addresses one of the most pressing issues in contemporary political communication and governance. **Methodological Sophistication:** Successfully combines multiple analytical approaches in coherent framework. **Regional Significance:** Provides crucial insights for Kazakhstan's technological development while contributing to global understanding. **Theoretical Innovation:** Develops new models that advance academic understanding of AI-mediated communication. **Areas for Enhancement:** **Comparative Scope:** Could benefit from more extensive comparison with other developing nations' AI strategies. **Longitudinal Perspective:** Future research could track changes in attitudes and implementation over time. **Sectoral Analysis:** Deeper examination of specific government sectors could enhance practical applications. **Critical Perspective:** More analysis of potential negative consequences and mitigation strategies would strengthen the work.	
12.	The scientific level of the doctoral student's articles on the research topic (in the case of defending a dissertation in the form of a series of articles, official reviewers comment on the scientific	**Publication Record Analysis:** **Scopus-Indexed Publications (2):** 4. **"Gender Division and Television Consumption in Kazakhstan"** (Journal of Applied Journalism & Media Studies, 2023) - demonstrates methodological competence in media research and statistical analysis 5. **"Digital literacy as a tool for identifying fake news"** (Journal of Information Policy, 2024) - shows engagement with digital media literacy, directly relevant to dissertation themes	

	level of each doctoral student's article on the research topic)	**National Publications (3):** 4. **"SWOT analysis of the current state and prospects for the development of artificial intelligence in Kazakhstan's media industry"** (Herald of Journalism, 2022) - directly supports dissertation methodology and findings 5. **"New horizons of visualization: the role of AI in modern journalism in Kazakhstan"** (Herald of Journalism, 2024) - demonstrates continued engagement with AI applications in media 6. **"Digital media preferences in the focus of social research"** (Herald of Journalism, 2020) - establishes foundation in digital media research **International Conference Proceedings (1): "SWOT and PEST analysis of artificial intelligence in Kazakhstan"**(ICICC 2022, Spain/India) - demonstrates international scholarly engagement and methodological development **Quality Assessment:** • Publications show clear progression in research sophistication • Direct relevance to dissertation topic demonstrating focused research program • Mix of solo and collaborative work appropriate for doctoral development • International recognition through Scopus indexing and conference participation • Methodological consistency across publications supporting dissertation reliability **OVERALL ASSESSMENT** **EXCEPTIONAL DOCTORAL WORK - RATING: EXCELLENT** This dissertation represents outstanding doctoral scholarship that successfully addresses all evaluation criteria at the highest level. The work demonstrates: • **Perfect alignment** with national development priorities • **Significant scientific contributions** through theoretical innovation • **Clear research independence** and intellectual maturity • **Strong internal coherence** and methodological rigor • **Genuine novelty** in theoretical and empirical contributions • **Valid and reliable findings** with practical applications • **High-quality presentation** meeting international standards The research makes substantial contributions to multiple fields while addressing urgent contemporary challenges in AI governance and political

		communication. **FINAL RECOMMENDATION:** Award of Doctor of Philosophy (PhD) degree with highest distinction. **SIGNIFICANCE:** This work establishes the candidate as an emerging leader in the critical intersection of AI and political communication studies, with particular expertise in developing nation contexts.
13.	Decision of the official reviewer (in accordance with paragraph 28 of these Model Regulations)	Dissertation research of Ashimova Aitolkyn "Artificial Intelligence as an Instrument of Political Communication: Application and Global Forecasting" is a completed scientific research. The work is performed at a high level and the applicant Ashimova Aitolkyn deserves to be awarded the degree of Doctor of Philosophy (PhD) in the educational program "8D03202 - Media and Communications".

Official Reviewer:
PhD in Communication Sciences, Associate Professor,
Fulbright Scholar at School of Communications

University of Miami, Florida, USA Turdubaeva E.O.