



ASEAN Journal of Community Service and Education



Journal homepage: <https://ejournal.bumipublikasinusantara.id/index.php/ajcse>

The Concept of Neurosociology, Community Service, and Social Security Education in Post-Industrial Society: Managing Digital and Neurotechnological Risks

Valery Vladimirovich Glushchenko

Russian State University of Social Technologies, Moscow, Russia

*Correspondence: E-mail: valery.v.glushchenko@gmail.com

ABSTRACT

This conceptual study examines neurosociology, community service, and social security education as approaches for managing digital and neurotechnological risks in post-industrial society. The study analyzes how information technology and neurotechnology may influence social behavior, economic stability, public security, and sustainable development. Using literature-based analysis, systems thinking, institutional analysis, and social engineering perspectives, the paper discusses neurosociology as an emerging field for understanding human and group behavior under stress, manipulation, and technological influence. The findings highlight the need for public education, community awareness, stronger social security systems, protection against digital fraud, and risk-sensitive governance. The study contributes to community service and education by proposing conceptual strategies for improving public awareness, digital risk literacy, and social protection in technologically mediated societies.

ARTICLE INFO

Article History:

Submitted/Received 01 Dec 2025

First Revised 19 Mar 2026

Accepted 01 May 2026

First Available online 15 May 2026

Publication Date 01 Sep 2026

Keyword:

Community service;

Digital risks;

Neurotechnological risks;

Neurosociology;

Post-industrial society;

Social security education.

1. INTRODUCTION

Post-industrial society is increasingly shaped by rapid developments in digital technology, information systems, and neurotechnology. These developments influence not only economic activities but also social behavior, communication patterns, public security, education, and institutional life. Digital platforms, artificial intelligence, and neurotechnological applications create new opportunities for innovation and social development; however, they also produce new forms of vulnerability, including manipulation, misinformation, digital fraud, psychological pressure, and social instability. Therefore, community-oriented education is needed to strengthen public awareness, social resilience, and risk management in technologically mediated societies (Natal'ya, 2021).

Social and humanitarian knowledge, social technologies, and social engineering continue to develop in response to new social challenges (Argamakova, 2015). Social technologies can be understood as structured methods, practices, and institutional arrangements used to organize social relations and meet social needs. In the context of digital transformation, these technologies are increasingly influenced by information systems, communication media, and neurotechnological tools. Digital technologies contribute to cultural change, social transformation, and sustainable development, while also creating risks that require careful governance and public education (Hashir *et al.*, 2025).

Neurotechnology has become one of the important technological fields in the post-industrial period. It is used in various domains, including management, economics, education, communication, and security. Studies have discussed the development of neurotechnologies and the integration of neuroscience with social sciences (Glushchenko, 2021; Pyatin *et al.*, 2021). These developments indicate the need for a broader sociological perspective that can explain how technological influence affects human behavior, social groups, institutions, and everyday decision-making. In this context, neurosociology can be developed as a conceptual field that examines the interaction between neurotechnology, emotional states, stress, social behavior, and institutional change (Glushchenko, 2021; Pyatin *et al.*, 2021).

The concept of neurosociology is especially relevant for community service and social security education. Communities are increasingly exposed to digital risks, including online fraud, manipulative communication, psychological influence, and misuse of personal data. Such risks are not only technical issues but also social and educational problems. They affect trust, financial security, mental well-being, and social stability. Therefore, public education should not only teach digital skills but also develop awareness of psychological manipulation, social engineering, information security, and responsible technological behavior.

In post-industrial conditions, the misuse of information technology and neurotechnological influence may also contribute to broader forms of social destabilization. The original discussion of neurotechnological weapons and neurotechnological wars can be reframed as an analysis of harmful technological influence, psychological manipulation, and organized digital risk. Studies on information-psychological operations, hybrid conflicts, and high-technology risks show that social communication can become a site of manipulation and vulnerability (Bazavluk and Kovalev, 2025). However, in the context of community service and education, the main concern is not military application but the protection of citizens, communities, and institutions from harmful digital and neuropsychological influence.

Social security education is therefore important for strengthening community resilience. It can help citizens understand different levels of social risk, protect personal data, identify

manipulative communication, reduce vulnerability to digital fraud, and respond more critically to technological influence. This requires the development of systemic social engineering, community education programs, and institutional strategies that combine sociology, psychology, information security, governance, and public awareness. Such an approach may support sustainable development by reducing the social and economic risks associated with digital and neurotechnological transformation.

Based on previous studies ([Glushchenko, 2023a](#); [Glushchenko, 2023b](#); [Glushchenko, 2024](#); [Glushchenko and Inei, 2024](#)), this study aims to analyze neurosociology, community service, and social security education as conceptual approaches for managing digital and neurotechnological risks in post-industrial society. Specifically, the study seeks to: (i) clarify the concept of neurosociology and its relevance to social security education; (ii) examine how digital and neurotechnological risks influence social behavior and institutional stability; and (iii) propose community-oriented strategies for reducing social vulnerability and strengthening sustainable development. By reframing neurotechnological risks through education and community service, this study contributes to the development of public awareness, social protection, and risk-sensitive governance in post-industrial society.

2. METHODS

This study used a conceptual qualitative approach based on literature analysis and theoretical synthesis. This design was selected because the study aims to develop a conceptual understanding of neurosociology, community service, and social security education in managing digital and neurotechnological risks in post-industrial society. The study did not conduct field-based community service activities; instead, it formulated a theoretical framework that can support future community education and social protection programs.

The data sources consisted of scholarly literature related to social technologies, digital transformation, neurotechnology, neurosociology, neuroeconomics, hybrid risks, information-psychological influence, social security, and sustainable development. The selected literature was analyzed to identify key concepts, relationships, risks, and possible strategies for reducing social vulnerability caused by digital and neurotechnological influence.

The analysis was conducted through several stages. First, relevant concepts were identified, including social technologies, neurosociology, neurotechnological risks, systemic social engineering, social security education, and community resilience. Second, the study examined how digitalization and neurotechnology may influence social behavior, institutional stability, public trust, financial security, and sustainable development. Third, the study synthesized conceptual strategies for community-oriented education, including public awareness, digital risk literacy, protection of personal data, fraud prevention, and institutional risk management.

The study applied historical, logical, and systematic analysis to interpret the development of social and technological change in post-industrial conditions. An institutional perspective was used to examine how social technologies, public policies, and community practices may be strengthened to reduce risks. A social engineering perspective was also used to propose preventive strategies for designing safer social processes and educational interventions. The findings are presented as a conceptual discussion rather than statistical results, emphasizing

theoretical contribution and practical implications for community service, education, and social security programs.

3. RESULTS AND DISCUSSION

Digitalization and neurotechnology create both opportunities and risks for post-industrial society. Digital technologies can support innovation, education, communication, governance, and sustainable development, but they can also create new vulnerabilities related to misinformation, manipulation, fraud, psychological pressure, and social instability (Hashir *et al.*, 2025). Neurotechnology also continues to develop in various fields, including geopolitics, economics, management, education, and social communication (Glushchenko, 2021; Glushchenko, 2022). In this study, these issues are interpreted through neurosociology and linked to community service and social security education.

As shown in **Table 1**, neurosociology can be used as a conceptual bridge between technological development and community protection. Previous studies have discussed the integration of neuroscience and sociology, as well as the need to understand the relationship between nature, society, human behavior, and neuro-communication (Pyatin *et al.*, 2021). Social technologies and social engineering are also relevant because they explain how organized social processes may be designed, changed, and protected from harmful influence (Argamakova, 2015). Therefore, digital and neurotechnological risks should not be treated only as technical problems, but also as social and educational problems that affect trust, behavior, and community resilience.

Table 1. Main concepts and their relevance to community service and social security education.

CONCEPT	MEANING IN THIS STUDY	RELEVANCE TO COMMUNITY SERVICE AND EDUCATION
Neurosociology	A conceptual field that studies how neurotechnology, stress, emotions, and technological influence affect individuals, groups, and social institutions	Helps explain why communities need education on psychological manipulation, digital influence, and social behavior
Digital and neurotechnological risks	Risks arising from information technology, digital platforms, psychological influence, and neurotechnological tools	Provides the basis for public awareness programs and risk literacy
Social technologies	Organized methods, practices, and institutional processes used to meet social needs	Can be redesigned to become safer, more resilient, and less vulnerable to manipulation
Systemic social engineering	A preventive approach for designing safer social processes and institutions	Supports the development of community protection strategies
Social security education	Education that strengthens public awareness, personal data protection, fraud prevention, and community resilience	Helps citizens identify and respond to digital and psychological risks
Sustainable development	The ability of society and institutions to remain stable despite technological transformation	Requires community education, governance, and risk-sensitive social systems

The study identifies several risk areas that require social security education. These risks are summarized in **Table 2**. The risks discussed in this study are not limited to advanced neurotechnology. Many risks are already present in daily life through digital communication, social engineering, misinformation, and information-psychological influence. Information

technologies can function both as tools for social development and as sources of risk, while information-psychological operations and high-technology conflicts may become elements of hybrid forms of destabilization (Bazavluk and Kovalev, 2025). For this reason, the discussion of neurotechnological weapons and neurotechnological wars should be reframed carefully as a broader issue of harmful technological influence, social vulnerability, and the need for public protection.

Table 2. Digital and neurotechnological risks in post-industrial society.

RISK AREA	DESCRIPTION	POSSIBLE SOCIAL IMPACT
Digital fraud	Use of digital communication, personal data, and psychological pressure to deceive citizens	Financial loss, anxiety, distrust, and social insecurity
Manipulative communication	Use of emotional, informational, or psychological influence to shape behavior	Reduced critical thinking and increased vulnerability to persuasion
Misuse of personal data	Excessive or unsafe circulation of personal information in social and economic activities	Identity misuse, fraud, and loss of privacy
Information-psychological influence	Organized use of information to create fear, confusion, or instability	Social polarization, panic, and institutional distrust
Neurotechnological influence	Use of techniques or technologies that affect attention, emotion, stress, or behavior	Mental pressure, behavioral manipulation, and reduced autonomy
Weak social systems	Social processes that lack safeguards against fraud or manipulation	Increased community vulnerability and reduced sustainable development

Social technologies need to be redesigned based on their level of risk. The classification proposed in this study is summarized in **Table 3**. Not all social activities require the same level of personal data and security procedures. Studies on social technologies emphasize that social systems and institutional practices shape how people interact and how social needs are fulfilled. Therefore, excessive use of sensitive documents in low-risk activities may increase vulnerability to fraud. Community education should include guidance on when personal data should or should not be shared, because social security requires not only institutional safeguards but also informed citizens.

Table 3. Classification of social technologies and recommended protection measures.

TYPE OF SOCIAL TECHNOLOGY	EXAMPLES	RECOMMENDED PROTECTION
Exceptional social technologies	Birth registration, death registration, marriage, property transactions, employment registration	Strong identity verification, legal safeguards, and limited use of sensitive documents
Special social and economic technologies	Buying vehicles, renting housing, purchasing expensive goods, accessing formal services	Moderate verification, consumer education, and fraud prevention guidance
Daily social technologies	Buying or returning daily goods, ordinary communication, simple public services	Minimal personal data collection and public awareness about privacy

Based on the conceptual analysis, the study proposes several community-oriented strategies for reducing digital and neurotechnological risks. These are presented in **Table 4**. Community service can translate theoretical knowledge into practical public education. Digital transformation and neurotechnology require not only technical governance but also public awareness, risk literacy, and preventive education (Hashir *et al.*, 2025; Pyatin *et al.*, 2021). Community service programs can therefore help citizens understand everyday risks such as fraud, manipulation, privacy loss, and unsafe digital decision-making. This approach is also consistent with studies emphasizing the importance of sustainable development, social transformation, and institutional adaptation in the digital period (Hashir *et al.*, 2025).

Table 4. Proposed community service and social security education strategies.

STRATEGY	PRACTICAL FOCUS	EXPECTED OUTCOME
Digital risk literacy	Teaching citizens how to recognize fraud, suspicious messages, and manipulative communication	Increased public awareness and reduced victimization
Personal data protection education	Explaining safe use of identity documents, online forms, electronic signatures, and digital accounts	Better privacy protection and lower risk of identity misuse
Fraud prevention campaigns	Community seminars, school programs, public information materials, and institutional announcements	Stronger community preparedness against digital fraud
Critical communication training	Helping citizens assess emotional pressure, urgency tactics, misinformation, and persuasion techniques	Improved critical thinking and decision-making
Institutional risk audit	Reviewing social and digital systems that collect or process personal data	Safer public services and reduced systemic vulnerability
Social security curriculum	Introducing social security, digital safety, and neurotechnological risk awareness in education and professional training	Long-term resilience among students, workers, and community members
Interdisciplinary collaboration	Cooperation among educators, psychologists, sociologists, legal experts, technologists, and public institutions	More comprehensive risk prevention and response systems

The study also highlights the need to develop neurosociology as an interdisciplinary field. This field may support future community service programs by explaining how stress, emotion, fear, trust, and technological influence shape public behavior. Its possible applications are summarized in **Table 5**. Neurosociology can contribute to education, public policy, professional training, and community service. The development of neuroeconomics and the integration of neuroscience with social sciences show that human behavior, emotion, stress, and decision-making are increasingly important for understanding socio-economic processes. Therefore, neurosociology may support the design of public education programs that help communities identify manipulation, manage fear, protect personal data, and respond critically to digital risks.

Digital and neurotechnological risks should be addressed through public education, social security systems, institutional safeguards, and interdisciplinary research. The concept of neurosociology provides a useful framework for understanding how technological influence affects people and communities. Community service programs can use this framework to strengthen digital risk literacy, protect citizens from manipulation and fraud, and support sustainable development in post-industrial society. This study contributes conceptually by

reframing neurotechnological risk as an issue of community education and social protection. Rather than focusing only on technological weapons or conflict, the study emphasizes public awareness, safer social processes, and preventive education. This framing is more relevant for community service because it connects technological risk with practical efforts to protect citizens, families, institutions, and communities.

Table 5. Possible applications of neurosociology in community education.

APPLICATION AREA	ROLE OF NEUROSOCIOLOGY	COMMUNITY BENEFIT
Community service	Provides conceptual tools for understanding technological influence on behavior	More effective public education and outreach
Social security education	Explains how people respond to fear, urgency, trust, and manipulation	Better prevention of fraud and psychological exploitation
Digital literacy	Connects technical knowledge with behavioral awareness	Citizens become more critical and self-protective
Public policy	Supports the design of safer social systems and regulations	Reduced institutional vulnerability
Professional training	Helps diplomats, managers, journalists, psychologists, educators, and public servants understand technological risks	More responsible professional practice
Sustainable development	Reduces social instability caused by harmful digital and neurotechnological influence	More resilient post-industrial society

4. CONCLUSION

Neurosociology, community service, and social security education are important conceptual approaches for managing digital and neurotechnological risks in post-industrial society. The development of digital technology and neurotechnology creates opportunities for innovation, communication, education, and governance, but it also increases risks related to manipulation, digital fraud, misuse of personal data, psychological pressure, and social instability. Therefore, these risks should not be understood only as technical issues, but also as social, educational, and community protection issues. Neurosociology provides a useful framework for understanding how stress, emotion, trust, fear, and technological influence affect individual and group behavior. Through this framework, community service programs can be designed to improve public awareness, digital risk literacy, fraud prevention, personal data protection, and critical communication skills. Social security education is also needed to help citizens recognize manipulative communication, respond safely to digital threats, and protect themselves from harmful technological influence. Social technologies and institutional processes should be redesigned based on their level of risk. High-risk social activities require stronger safeguards, while everyday activities should minimize unnecessary personal data collection. Future studies may develop practical community service models, training modules, and educational programs that apply neurosociology-based social security education in schools, universities, public institutions, and community organizations.

5. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. The authors confirmed that the paper was free of plagiarism.

6. REFERENCES

- Argamakova, A. A. (2015). Applied socio-humanitarian knowledge, social technologies and engineering. *Epistemology and Philosophy of Science*, 46(4), 70-84.
- Bazavluk, S. V., and Kovalev, A. A. (2025). Information warfare in a multipolar world. *Vestnik RUDN. International Relations*, 25(2), 236-250.
- Glushchenko, V. V. (2021). The development of neurotechnologies in the period of the sixth technological order. *International Journal of Engineering Science Technologies*, 5(2), 45-57.
- Glushchenko, V. V. (2022). Neurotechnologies in geopolitics, management, economics during the global crisis and hybrid wars. *Security Issues*, 3, 1-18.
- Glushchenko, V. V. (2023a). The mechanism of ensuring the sustainability of the development of the higher education system during the formation of a new technological order. *ASEAN Journal of Educational Research and Technology*, 2(2), 153-162.
- Glushchenko, V. V. (2023b). The use of Gestalt psychology in project work. *ASEAN Journal of Educational Research and Technology*, 2(3), 173-178.
- Glushchenko, V. V., and Inei, Y. H. A. (2024). Theoretical aspects of creating a scientific and educational platform for information and trading systems. *ASEAN Journal of Educational Research and Technology*, 3(2), 135-146.
- Glushchenko, V. V. (2024). The paradigm of curriculum differentiation in higher IT education. *ASEAN Journal for Science Education*, 3(1), 87-94.
- Hashir, B. O., Gatina, E. A., Chudaeva, A. A., and Fedotova, E. V. (2025). Prospects for sustainable development: New values, digital technology management, social change. *Bulletin of Tomsk State University. Economy*, 71, 38-62.
- Pyatin, V. F., Maslova, O. A., and Romanchuk, N. P. (2021). Nature, society and homo sapiens: A new neurosociology and neuro-communications. *Bulletin of Science and Practice*, 7(7), 106-127.
- Natal'ya, A. E. (2021). Global megatrends and new technologies: challenges for and threats to the post-industrial economy. *Ekonomicheskie i Sotsialnye Peremeny*, 14(5), 116-134.