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**Modeling Scenarios for Cultural Resilience Among Youth in Conditions of Hybrid Information Threats**

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***Abstract.** This article examines the problem of modeling cultural resilience scenarios among youth under conditions of hybrid information threats as a complex social phenomenon shaped by the digital environment, mass communications, transformations of cultural identity, and shifts in the system of social values.*

***The purpose of this study** is to identify the social mechanisms underlying the formation of cultural resilience among youth and to develop a scenario-based model of its evolution amid information turbulence, increasing manipulative influences, and the proliferation of disinformation.*

***Methods.** The methodological framework of this study is grounded in systemic, sociocultural, and scenario-based approaches, complemented by methods of scholarly source analysis, generalization, social modeling, comparative analysis,*

*and interpretation of data on the information behavior of youth in the digital environment.*

**Results.** *The study identified the principal determinants of cultural resilience, including the level of critical thinking, digital literacy, social trust, engagement in cultural practices, the degree of civic identity formation, the capacity for selective information processing, and resistance to manipulative influences. A typology of youth cultural resilience scenarios was substantiated, comprising adaptive, resistant, transformational, and disorientation models that reflect distinct patterns of response to information influences and varying levels of social integration. The study demonstrated that the effectiveness of cultural resilience depends on the interaction between individual personal resources and the social environment, particularly educational institutions, the media landscape, family, informal communities, and civil society. The proposed model enables the forecasting of youth behavioral trajectories and the development of social strategies to counteract destructive information influences.*

**Conclusions.** *The findings confirm the necessity of a comprehensive interdisciplinary approach to strengthening the cultural resilience of the younger generation as a vital factor in social stability, information security, and the preservation of societal cultural integrity under contemporary hybrid challenges.*

**Keywords:** *youth, cultural identity, cultural resilience, hybrid threats, digital environment, strategic communications, information security, social media, disinformation, critical thinking.*

## Моделювання сценаріїв культурної стійкості молоді в умовах гібридних інформаційних загроз

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***Анотація:** У статті досліджено проблему моделювання сценаріїв культурної стійкості молоді в умовах гібридних інформаційних загроз як складного соціального явища, що формується під впливом цифрового середовища, масових комунікацій, трансформацій культурної ідентичності та змін у системі соціальних цінностей.*

***Мета** дослідження полягає у визначенні соціальних механізмів формування культурної стійкості молоді та розробленні сценарної моделі її розвитку в умовах інформаційної турбулентності, зростання маніпулятивних впливів і поширення дезінформації.*

***Методи.** Методологічну основу роботи становлять системний, соціокультурний і сценарний підходи, а також методи аналізу наукових джерел, узагальнення, соціального моделювання, порівняльного аналізу та інтерпретації даних щодо інформаційної поведінки молоді в цифровому середовищі.*

***Результати.** Визначено основні чинники культурної стійкості, серед яких: рівень критичного мислення, цифрова грамотність, соціальна довіра, залученість до культурних практик, сформованість громадянської ідентичності, здатність до селективного сприйняття інформації та опір маніпулятивним впливам. Обґрунтовано типологію сценаріїв культурної стійкості молоді – адаптаційний, резистентний, трансформаційний і*

дезорієнтаційний, що відображають різні моделі реагування на інформаційні впливи та рівні соціальної інтегрованості. Доведено, що дієвість культурної стійкості залежить від взаємодії індивідуальних ресурсів особистості та соціального середовища, зокрема освітніх інституцій, медіапростору, сім'ї, неформальних спільнот і громадянського суспільства. Запропонована модель уможлиблює прогнозування траєкторій поведінки молоді та розроблення соціальних стратегій протидії деструктивним інформаційним впливам.

**Висновки.** Результати дослідження підтверджують необхідність комплексного міждисциплінарного підходу до зміцнення культурної стійкості молодого покоління як важливого чинника соціальної стабільності, інформаційної безпеки та збереження культурної цілісності суспільства в умовах гібридних викликів сьогодення.

**Ключові слова:** молодь, культурна ідентичність, культурна стійкість, гібридні загрози, цифрове середовище, стратегічні комунікації, інформаційна безпека, соціальні медіа, дезінформація, критичне мислення.

**Introduction.** The development of the information society is accompanied by the intensification of hybrid information threats that combine manipulative media technologies, disinformation, psychological influence, and the deliberate transformation of value orientations. Youth, as a socially active group in the process of forming their worldview, cultural identity, and models of social behavior, are particularly vulnerable to such influences. The digitalization of the communication space and the dominance of social media have increased the intensity of information flows, complicating the process of critical evaluation of information and heightening the risk of destructive impact on the cultural resilience of the younger generation.

In scholarly discourse, the problem of youth cultural resilience is examined within the contexts of socialization, identity, media influence, and information security. However, the systemic modeling of possible scenarios for its development

under hybrid information influences remains insufficiently explored. Existing research has largely focused on specific aspects of information-psychological security or digital literacy, whereas a comprehensive approach to analyzing the interaction between individual and social determinants of cultural resilience requires further theoretical substantiation and empirical verification.

The relevance of this study is determined by the growing role of the information environment in shaping youth social practices, the transformation of cultural norms and communication patterns, and the need to develop effective mechanisms for countering destructive information influences. In this regard, the cultural resilience of youth emerges as a critical factor in social stability, national security, and the preservation of a society's cultural integrity.

Accordingly, there is a need to examine the social mechanisms underlying the formation of youth cultural resilience and to model scenarios of its development under the impact of hybrid information threats. Identifying such scenarios will deepen the theoretical foundations of the sociology of youth and the sociology of culture, while also contributing to the development of practical recommendations for strengthening the resilience of the younger generation to contemporary information challenges.

**Literature Review.** Research over the past decade demonstrates growing scholarly interest in the problem of cultural and information resilience of the individual amid intensifying hybrid threats and the transformation of the digital communication space. In particular, D. Popchuk emphasizes the increasing vulnerability of the individual to information-psychological influences in the digital environment, manifested in diminished critical thinking and heightened anxiety, which creates preconditions for the weakening of social and cultural resilience among youth [1, p. 46-48]. Within the broader social context of wartime transformations, T. Kostiuk notes that societal resilience is largely measured by the

value system, the level of social trust, and cohesion, all of which constitute important factors in preserving the cultural stability of the younger generation [2, p. 577-579].

A distinct line of inquiry is associated with the study of digital literacy as a decisive resource for countering disinformation and manipulative influences in the networked environment. F. Reichert, C. Pan, and L. Chen substantiate the significance of digital competencies for developing the ability to critically evaluate information, verify its reliability, and resist the spread of unverified content [3]. S. Yevseiev, H. Zavolodko, K. Foksha, and colleagues demonstrate the role of educational content aggregators as tools for building youth information resilience through expanded access to quality learning resources and enhanced effectiveness of the educational environment [4, p. 156-162]. In this regard, H. Zavolodko and K. Trubchaninova focus on the creation of digital profiles of educational participants as a means of personalizing learning and developing the digital competencies necessary for youth adaptation to contemporary information challenges [5, p. 124-127].

Furthermore, a considerable body of research focuses on the analysis of the information environment and strategic communications, within which the mechanisms of hybrid threat dissemination through networked information ecosystems are examined. N. Haidar, G. Zavolodko, and P. Pustovoitov emphasize the role of information ecosystems in the proliferation of hybrid threats that affect public consciousness and the behavior of social groups [6, p. 124]. A significant contribution to the study of information processes has been made by M. Cinelli and co-authors, who demonstrated the existence of the echo chamber effect, which fosters information segmentation of audiences and the intensification of opinion polarization [7]. The findings of J. Milošević-Đorđević and co-authors reveal a relationship between conspiratorial beliefs, the level of institutional trust, and the propensity to disseminate unreliable information [8]. The work of M. Xiao demonstrates the influence of message characteristics, information sources, and social cues on the level of audience engagement in social networks [9], while R.

Mandlik underscores the role of digital media in shaping youth social activism and their attitudes toward socially significant issues [10, p. 94-97].

In light of the foregoing, the study by A. Dashevskya and I. Cherneli indicates that the use of immersive technologies promotes the development of critical thinking, creative abilities, and the capacity of youth for independent information analysis, which constitutes an important factor in countering manipulative influences [11, pp. 9-11]. Yu. Reha and D. Volkovetskyi emphasize the significance of international cooperation for modernizing educational systems and implementing innovative approaches to training specialists capable of operating effectively in an environment of global information challenges [12]. At the same time, a synthesis of the findings from the aforementioned studies demonstrates that, despite considerable attention to specific aspects of information security, digital literacy, and educational innovation, the problem of comprehensively building cultural resilience among youth under hybrid information threats remains insufficiently developed. This necessitates the identification of previously unresolved aspects of the broader problem and the determination of directions for further scholarly inquiry.

#### **Identification of Previously Unresolved Aspects of the Broader Problem.**

Despite the considerable body of research devoted to information security, digital literacy, media influence, and youth socialization, the problem of cultural resilience among the younger generation under hybrid information threats remains insufficiently developed within a comprehensive sociological framework. The majority of scholars focus on individual aspects of information influence, whether psychological, technological, or communicational, while the interrelationship among cultural identity, social values, information behavior, and institutional factors has been addressed only in a fragmentary manner. This results in the absence of a holistic understanding of the mechanisms underlying the formation of youth cultural resilience as a social phenomenon.

A significant gap lies in the insufficient development of a scenario-based approach to analyzing possible trajectories of cultural resilience under conditions of information turbulence. Existing studies are predominantly descriptive or analytical in nature, whereas the forecasting of changes in cultural identity and social behavior of youth under the influence of hybrid information threats remains limited. The lack of models that account for the interaction among individual personal resources, the social environment, and the media space complicates the development of effective strategies for countering destructive information influences.

The influence of institutional factors, including educational systems, civil society, the family, and informal communities, on the formation of youth cultural resilience also remains insufficiently studied. Previous research has predominantly analyzed the role of individual institutions without examining them in their interconnection as part of an integrated social system. The limited availability of empirical data on the behavioral strategies of youth under information pressure further complicates the understanding of the actual mechanisms of adaptation and resistance to manipulative influences.

The unresolved nature of these aspects carries significant implications both for the development of sociological theory and for the practice of shaping state and public policy in the domains of information security and youth policy. The absence of scientifically grounded models of cultural stability diminishes the capacity to forecast social risks and develop effective measures for strengthening the resilience of the younger generation.

This study is aimed at addressing the identified gaps through the construction of a scenario-based model of youth cultural resilience that integrates sociocultural, communicational, and institutional factors. The application of systemic and scenario-based approaches will enable the identification of a typology of possible youth response scenarios to hybrid information threats and the substantiation of the mechanisms underlying their formation. This will contribute to deepening the

theoretical foundations of the sociology of youth and the sociology of culture, as well as to developing practical recommendations for strengthening the cultural resilience of the younger generation in the face of contemporary information challenges.

**Formulation of Article Objectives (Statement of the Problem).** The objective of this article is to conduct a comprehensive study of youth cultural resilience under hybrid information threats and to develop a scenario-based model of its formation and evolution as a social phenomenon. Achieving this objective involves identifying the principal sociocultural, communicational, and institutional factors that influence the capacity of the younger generation to preserve cultural identity and social stability amid intense information pressure.

To fulfill the research objective, the following tasks have been formulated: first, to analyze theoretical approaches to understanding youth cultural resilience under hybrid information threats; second, to identify the main factors and mechanisms underlying the formation of cultural resilience among the younger generation in the contemporary information environment; and third, to substantiate a typology of scenarios for the development of youth cultural resilience and to develop a conceptual model for their prediction.



The formulation of these tasks is driven by the relevance of the study for sociological scholarship and for the practice of shaping youth policy, information security, and the cultural stability of society. The findings are intended to deepen theoretical understanding of the mechanisms of youth social adaptation to information challenges and to develop practical recommendations for strengthening their cultural resilience in the contemporary digital environment.

The stated objectives and tasks define the logic of the subsequent research and substantiate the scientific novelty of the proposed approach to modeling scenarios of youth cultural resilience.

**Results.** The cultural resilience of youth under hybrid information threats is examined as a multidimensional sociocultural phenomenon shaped by the interaction between individual personal characteristics and the external information environment. The study is based on the hypothesis that the level of cultural resilience among the younger generation is determined not merely by the volume of information received but primarily by the capacity for its critical evaluation, selective perception, and integration into one's own value system. In this context, the position advanced by D. Popchuk regarding the growing importance of information-psychological security of the individual as a factor in preserving social stability amid contemporary challenges [1, p. 46-48] is particularly relevant, confirming the necessity of analyzing cultural resilience specifically at the social level.

Data collection and analysis were conducted through the synthesis of findings from contemporary studies, the processing of statistical materials, and the comparative examination of youth information behavior practices in the digital environment. This methodology enabled the identification of the principal factors influencing the formation of cultural resilience, notably the level of digital literacy, critical thinking, social trust, and engagement in cultural practices. It was established that youth with higher levels of media literacy demonstrate a greater capacity to resist manipulative information influences, which is consistent with the conclusions of F. Reichert, C. Pan, and L. Chen regarding the role of digital competencies in the critical perception of information [3], as well as with the findings of S. Yevseiev, H. Zavolodko, K. Foksha, and co-authors on the significance of the digital educational environment for building information resilience [4, p. 156-162].

The research findings confirmed the working hypothesis regarding the existence of distinct scenarios for the development of youth cultural resilience. The adaptive scenario is characterized by the ability to integrate new information influences without losing cultural identity; the resistant scenario involves active opposition to destructive influences; the transformational scenario entails a gradual



shift in value orientations under the impact of the information environment; and the disorientation scenario results in the loss of clear sociocultural reference points. The variability of these responses correlates with the findings of M. Cinelli et al. regarding the echo chamber effect, which promotes the polarization of views and the fragmentation of the information space [7], thereby intensifying the risks of social disorientation among youth.

Social institutions, particularly education, the media environment, and civil society, play a distinct role in shaping cultural resilience. It was established that the implementation of innovative educational technologies and the intensification of international cooperation enhance the adaptability of youth to global information challenges, as confirmed by the conclusions of Yu. Reha and D. Volkovetskyi regarding the modernization of educational systems within the context of international engagement [12]. At the same time, the findings indicate that without adequate development of critical thinking, even a high level of technological provision does not guarantee sufficient resilience to manipulative influences.

An important analytical tool was the assessment of the impact of modern technologies, particularly artificial intelligence, on the transformation of humanitarian knowledge and methods for studying social processes. The use of such technologies opens possibilities for modeling social behavior and forecasting societal development trends, which is significant for the study of youth cultural resilience. Simultaneously, questions arise concerning the reliability of data, the ethics of their application, and the potential risks of manipulating public consciousness.

The synthesis of the research findings enabled the systematization of the identified types of youth responses to hybrid information threats in the form of a scenario-based model of cultural resilience. The proposed typology reflects varying levels of adaptation of the younger generation to information turbulence and demonstrates the interrelationship among individual personal resources, the social

environment, and trends in information influences. The identification of scenarios is grounded in the analysis of youth behavioral strategies, the characteristics of information perception, and the degree of cultural identity preservation under conditions of intense media influence. Each scenario is characterized by specific models of social behavior, a particular level of critical thinking, and a capacity to resist manipulative influences, which allows cultural resilience to be viewed as a dynamic process rather than a static attribute. The summarized characteristics of youth cultural resilience scenarios are presented in Table 1.

**Table 1**

### Scenarios of Youth Cultural Resilience under Hybrid Information Threats

Scenario	Characteristics	Behavioral Manifestations among Youth	Level of Cultural Resilience	Key Risks
Adaptive	Flexible adjustment to information influences without the loss of cultural identity	Critical evaluation of information; selective media consumption	High	Information overload
Resistant	Active opposition to manipulative and disinformation influences	Rejection of unreliable sources; systematic fact-checking	High	Social isolation; distrust
Transformational	Gradual shift in value orientations under the influence of the information environment	Adoption of new cultural norms and behavioral models	Moderate	Erosion of traditional values
Disorientational	Loss of clear cultural reference points and social identity	Contradictory behavioral strategies; heightened anxiety	Low	Manipulative vulnerability; social maladaptation

Source: Author's original development.

As the presented data indicate, the cultural resilience scenarios reflect distinct trajectories of youth social behavior development depending on the level of information pressure and the available adaptation resources. The most favorable scenarios from the standpoint of preserving cultural identity are the adaptive and resistant ones, which presuppose an active stance on the part of youth toward the critical evaluation of information and the capacity to counter disinformation. By contrast, the transformational and especially the disorientation scenarios are associated with elevated risks of losing cultural reference points and social maladjustment, which may have long-term consequences for the social stability of society. These tendencies are consistent with the findings of contemporary empirical research. In particular, F. Selnes establishes that adolescents' experience of interacting with fake news on social media generates different response patterns, ranging from critical analysis to the passive reception of information, which directly affects the level of their cultural and information resilience [13]. The research by T. Nguyen et al. demonstrates that the frequency of contact with disinformation content leads to the development of specific psychological coping strategies for managing information pressure, which may either enhance the adaptive capacity of youth or contribute to their disorientation [14].

The findings confirm that the cultural resilience of youth is formed through the interaction of personal, sociocultural, and institutional factors, and that its level determines the capacity of the younger generation to respond effectively to hybrid information challenges. The proposed scenario-based model can serve as an analytical tool for forecasting changes in youth behavior and for developing state and public policy strategies aimed at strengthening the cultural and information security of society. At the same time, E. Dennis and R. Lindberg emphasize that the spread of disinformation in social media is systemic in nature and affects the level of public trust and public health, necessitating comprehensive preventive measures

at the levels of education, media space regulation, and the development of information literacy among the population [15].

Thus, the analysis conducted provides a comprehensive account of the mechanisms underlying the formation of youth cultural resilience and identifies possible scenarios of its development under hybrid information threats, thereby establishing the groundwork for synthesizing the obtained results and formulating concluding propositions.

**Conclusions.** This study has achieved its stated objective by conducting a comprehensive analysis of youth cultural resilience under hybrid information threats and developing a scenario-based model for its formation and evolution as a social phenomenon. The key sociocultural, communicational, and institutional factors that influence the ability of the younger generation to maintain cultural identity and social stability amid intense information pressure have been identified. Cultural resilience has been shown to emerge through the interplay of personal resources, digital literacy, critical thinking, social trust, and support from social institutions.

A typology of youth cultural resilience scenarios has been substantiated, reflecting diverse models of adaptation to information turbulence, ranging from active resistance to destructive influences to disorientation and the erosion of cultural reference points. The proposed scenario-based model enables the prediction of potential trajectories of youth social behavior and the identification of risk factors, which holds considerable significance for shaping effective youth policy and information security strategies. The findings confirm that achieving cultural resilience is feasible only through an integrated combination of educational, social, and communicational mechanisms of influence.

At the same time, the study has certain limitations, primarily related to the theoretical nature of the analysis and the insufficient use of empirical data on actual youth behavior under information pressure. Future research should focus on conducting empirical studies, expanding the comparative analysis across diverse

sociocultural youth groups, and examining the impact of specific information campaigns on the formation of cultural resilience.

Thus, all objectives set forth in the article have been fulfilled, confirming both the scientific novelty and practical significance of the findings for the advancement of the sociology of youth, the sociology of culture, and information security studies. The proposed approach can serve as a foundation for further refinement of theoretical models of cultural resilience and the development of practical measures aimed at strengthening the capacity of the younger generation to withstand contemporary hybrid information challenges.

### References

1. Попчук Д. О. Інформаційно-психологічна безпека особистості в умовах сьогодення. *Безпека людини у сучасних умовах* : зб. доп. 15-ї Міжнар. наук.-метод. конф. та Міжнар. наук. конф. Європейської асоціації наук з безпеки (EAS), 7–8 грудня 2023 р. Харків, 2023. С. 46–48. URL: <https://repository.kpi.kharkov.ua/handle/KhPI-Press/79495> (дата звернення: 20.12.2025).

2. Kostiuk T. Political, social and humanitarian dimensions of war and post-war sustainability of Ukraine. *Розбудова інноваційної економіки, менеджменту та освіти* : матеріали Міжнар. наук.-практ. конф. Київ, 2025. С. 577–579. URL: <https://www.researchgate.net/publication/397106050> (date of access: 20.12.2025).

3. Reichert F., Pan Q., Chen L. L. Digital literacy assessment. Paris: UNESCO, 2023. URL: <https://unesdoc.unesco.org/ark:/48223/pf0000386202> (date of access: 20.12.2025).

4. Yevseiev S., Zavolodko H., Foksha K. et al. Educational content aggregator with an open API. *Scientific and Practical Issues of Cybersecurity and Information Technology (ISecIT 2025)* : Proceedings of the Workshop. Lutsk, 2025. P. 156–162. URL: <https://ceur-ws.org/Vol-4150/paper14.pdf> (date of access: 20.12.2025).

5. Zavolodko H., Trubchaninova K. Implementation stages to the formation of a digital profile for participants in the educational process. *Achievements of Science and Education in the Modern World* : Proceedings of the International Scientific and Practical Conference. Birmingham, 2025. P. 124–127. DOI: <https://doi.org/10.64076/iedc250614.13>

6. Haidar N., Zavolodko G., Pustovoitov P. Process of 3D printing in online education. *Advanced Information Systems*. 2022. Vol. 6, No. 1. P. 114–117. DOI: <https://doi.org/10.20998/2522-9052.2022.1.18>

7. Cinelli M., Morales G. D. F., Galeazzi A., Quattrocioni W., Starnini M. The echo chamber effect on social media. *Proceedings of the National Academy of Sciences of the United States of America*. 2021. Vol. 118, No. 9. Article e2023301118. DOI: <https://doi.org/10.1073/pnas.2023301118>

8. Milošević-Đorđević J., Mari S., Vdović M., Milošević A. Links between conspiracy beliefs, vaccine knowledge and trust. *Social Science & Medicine*. 2021. Vol. 277. Article 113930. DOI: <https://doi.org/10.1016/j.socscimed.2021.113930>

9. Xiao M. Environmental communication on Twitter. *Sustainability*. 2023. Vol. 15, No. 20. Article 14732. DOI: <https://doi.org/10.3390/su152014732>

10. Mandlik R. B. The role of digital media in shaping youth engagement. *Worldwide International Inter Disciplinary Research Journal*. 2025. P. 94–97. URL: <https://www.researchgate.net/publication/395593685> (date of access: 22.02.2026).

11. Dashevskaya A., Chernelya I. Gamification through immersive technologies. *Імерсивні технології в освіті* : матеріали наук.-практ. конф. Київ, 2025. С. 9–11. URL: [https://lib.iitta.gov.ua/id/eprint/745695/1/ITE\\_2025\\_Proceedings.pdf](https://lib.iitta.gov.ua/id/eprint/745695/1/ITE_2025_Proceedings.pdf) (date of access: 22.12.2025).

12. Рега Ю. О., Волковецький Д. С. Роль міжнародного співробітництва в удосконаленні юридичної освіти в Україні. *Академічні візії*. 2024. № 33. URL: <https://www.academy-vision.org/index.php/av/article/view/1254> (дата звернення: 23.12.2025).

13. Selnes F. N. Adolescents' experiences and (re)action towards fake news on social media: perspectives from Norway. *Humanities and Social Sciences Communications*. 2024. Vol. 11, no. 1. URL: <https://doi.org/10.1057/s41599-024-04237-1> (date of access: 20.12.2025).

14. Exposure to fake news on social media, coping mechanisms, and mental health impact among Vietnamese adolescents and young adults / T. T. Nguyen et al. *Scientific Reports*. 2025. Vol. 15, no. 1. URL: <https://doi.org/10.1038/s41598-025-19175-4> (date of access: 20.12.2025).

15. Denniss E., Lindberg R. Social media and the spread of misinformation: infectious and a threat to public health. *Health Promotion International*. 2025. Vol. 40, no. 2. URL: <https://doi.org/10.1093/heapro/daaf023> (date of access: 20.12.2025).