

Youth Vulnerability to Disinformation and Its Determinants in Mongolia

Study report



Ulaanbaatar,
May, 2026

Conducted by:

Independent Research Institute of Mongolia (IRIM)

Project team:

- Batsugar Tsedendamba, Project Team leader
- Jargalmaa Ganzorig, Project Coordinator & Researcher
- Batkhuu Bud, Researcher

Sponsored by:

Team Europe Democracy (TED) Initiative of the European Union

Acknowledgements

The project team would like to express its sincere gratitude to the Youth of Tuv Province NGO and the Lifelong Learning Center of Khuvsgul Province for their valuable support in facilitating data collection. We also extend our appreciation to all young people who participated in this study. Your participation, insights, and perspectives made an important contribution to ensuring that the findings reflect real-world experiences and challenges.

Disclaimer

This study was conducted with the support of the Team Europe Democracy (TED) Initiative funded by the European Union. The views, findings, interpretations, and conclusions expressed in this report are those of the project team alone and do not necessarily reflect the official views of the European Union, the TED Initiative, or the IRIM.

Feedback and Inquiries

For comments, inquiries, or additional information regarding this study, please contact:

Independent Research Institute of Mongolia (IRIM)
Email: contact@irim.mn

Suggested Citation

Independent Research Institute of Mongolia (IRIM). (2026). *Youth Vulnerability to Disinformation and Its Determinants in Mongolia*. Ulaanbaatar, Mongolia.

Copyright

© 2026 Independent Research Institute of Mongolia (IRIM).

The contents of this report may be quoted, reproduced, or distributed for non-commercial purposes, provided that appropriate acknowledgement of the source is given.

List of Abbreviations

ANOVA	Analysis of Variance
DVI	Disinformation Vulnerability Index
IRIM	Independent Research Institute of Mongolia
MIL	Media and Information Literacy
SD	Standard Deviation
TED	Team Europe Democracy
UNESCO	United Nations Educational, Scientific and Cultural Organization
VIF	Variance Inflation Factor

Content

List of Abbreviations	2
Executive Summary.....	4
Project Background	6
1. Study Rationale	7
2. Methodology	8
2.1 Study Objectives and Research Questions	8
2.2 Study Design.....	8
2.3 Measurement Framework and Questionnaire Structure	9
2.4 Study Sample and Target Population	10
2.5 Study limitations.....	11
3. Study findings.....	12
3.1. How Vulnerable Are Young People to Disinformation?	12
3.2. What Factors Influence Youth Vulnerability to Disinformation?	13
3.2.1 Influence of Demographic and Socio-Economic Factors	14
3.2.2 Influence of Media and Information Literacy	16
3.2.3 Influence of Cognitive and Psychological Factors.....	18
3.3. Community Information Spaces	28
4. Key findings and Implications	32
Recommendation	35
References	38

Executive Summary

This study examined the level of youth vulnerability to disinformation and the factors influencing such vulnerability among 400 young people aged 16–25 living in both urban and rural areas of Mongolia. A series of statistical analyses were conducted to identify the key determinants of vulnerability and to better understand how young people interact with misleading and false information.

To measure vulnerability, the study developed a Disinformation Vulnerability Index (DVI) based on dimensions identified through a comprehensive literature review. The index was measured on a five-point scale, where 1 represented the highest level of vulnerability and 5 represented the highest level of resilience to disinformation.

The study then examined four broad categories of factors that may influence vulnerability to disinformation: (1) demographic characteristics, (2) media and information literacy, (3) cognitive and psychological factors, and (4) social information environments and information-related behaviors. Each category consisted of multiple sub-indicators that were analyzed both individually and collectively to assess their relationship with the DVI.

The findings show that the average DVI score among Mongolian youth was **2.58 out of 5.00, indicating a moderate level of vulnerability to disinformation**. Across the three dimensions, young people demonstrated relatively strong performance in identifying false information (2.85), mixed levels of trust in true information (2.71), and a moderate tendency to share false information (2.18). However, the moderate DVI score should not be interpreted as low vulnerability. More than half of respondents (51.5%) expressed **skepticism toward all or some true information, suggesting a broader crisis of trust in information rather than simply susceptibility to false content**.

Demographic factors such as age, gender, and education did not demonstrate statistically significant direct relationships with the DVI. Collectively, demographic variables explained only 4.8% of the variation in vulnerability. In contrast, **cognitive, motivational, and emotional factors together explained 27.9% of the variation in DVI scores**. Among these, cognitive factors had the strongest effect ($\beta = .290$), followed by motivational factors related to beliefs and social influence ($\beta = .218$), and emotional factors ($\beta = .207$).

These findings suggest that youth vulnerability to disinformation is shaped less by demographic characteristics and more by the ways **individuals process, interpret, and evaluate information**. **Cognitive mechanisms, belief systems, and emotional responses appear to play a central role** in determining vulnerability.

Although the average level of media and information literacy (MIL) was relatively high (3.88/5.00), no statistically significant relationship was observed between self-reported MIL and the DVI. Nevertheless, MIL was significantly associated with belief in false information, distrust of true information, sharing behavior, and several cognitive, motivational, and emotional factors. This suggests that **MIL level may influence vulnerability indirectly through other psychological and behavioral pathways**.

Furthermore, the absence of a significant relationship between DVI and MIL indicates that respondents' self-assessed level of literacy may not accurately reflect their actual abilities or behaviors when engaging with information. In other words, having a high level of confidence in one's own media and information literacy does not necessarily mean that an individual is able to accurately identify, evaluate, and verify false or misleading information in practice.

Segmented analyses revealed important differences across age groups and locations. **Emotional factors exerted the strongest influence among urban youth, while cognitive and motivational factors were more influential among rural youth**. By age group, all three factors were significant among adolescents aged 16–

18, emotional factors were most influential among those aged 19–21, and motivational factors had the strongest effect among respondents aged 22–25. These findings suggest that interventions should be tailored to the specific characteristics of different youth groups rather than applying a one-size-fits-all approach.

The study also explored whether social information environments and information-use behaviors influence vulnerability to disinformation. Cluster analysis identified three distinct groups of youth: **Passive Receivers (35.2%)**, **Active Seekers (32.9%)**, and **Isolated Consumers (31.9%)**. While these groups did not directly determine vulnerability levels, they revealed different patterns of information engagement that may shape how vulnerability develops and manifests.

Overall, the findings indicate that youth vulnerability to disinformation is the result of interactions among multiple factors operating at different levels. Demographic characteristics provide background conditions, while cognitive, motivational, and emotional factors serve as the primary drivers of vulnerability. At the same time, social information environments and information-use behaviors influence how vulnerability is expressed and reinforced within communities and peer networks.

The study concludes that efforts to reduce vulnerability to disinformation should extend beyond improving individual knowledge and skills. Effective interventions should combine measures that strengthen critical thinking, verification practices, and information evaluation skills with initiatives that foster more resilient information environments and healthier information-sharing behaviors within social groups. Such a **dual-level approach** is more likely to achieve broader reach and generate sustainable long-term impacts among young people.

Project Background

The Independent Research Institute of Mongolia (IRIM) is implementing the project “**Action for Integrity and Democracy Against Disinformation**” from June 2025 to June 2026 with the support of the European Union’s Team Europe Democracy (TED) Initiative, which aims to promote democracy, human rights, the rule of law, and civic participation.

The project seeks to strengthen societal resilience against disinformation through an evidence-based and participatory approach, thereby contributing to the protection of democratic values. It is being implemented in four phases, with the present study conducted as part of the second phase:

- (1) Conducting a mapping study of the disinformation landscape in Mongolia;
- (2) Examining information-related behaviors and factors influencing vulnerability to disinformation among the public;
- (3) Designing and piloting an intervention model targeting groups that are particularly vulnerable to disinformation; and
- (4) Sharing project findings and lessons learned with other countries in the region.

The first phase of the project, the **Mapping Study of Disinformation in Mongolia**, found that health-related misinformation, socio-political disinformation, and financially motivated scams constitute the most prevalent forms of disinformation circulating in the country. Through document review and qualitative consultations with experts, the study also identified characteristics commonly associated with groups at greater risk of exposure to disinformation. These characteristics included younger and older age groups, relatively lower levels of education and income, and limited media, information, and digital literacy.

Building on these findings, the project selected young people as a priority target group for further investigation. Consequently, the study “**Youth Vulnerability to Disinformation and Its Determinants in Mongolia**” was conducted between February and May 2026 among 400 young people aged 16–25 residing in Ulaanbaatar, Khuvsgul Province, and Tuv Province.

In the next phase of the project, the findings of this study will be used to develop practical recommendations for addressing disinformation and its negative consequences. Based on these recommendations, the project aims to design and pilot an intervention model incorporating a set of feasible short-term actions that can be implemented and tested in practice. As such, this study not only provides evidence for the design of targeted interventions to counter disinformation but also contributes to the growing body of knowledge on disinformation in Mongolia. The study team believes that the findings will serve as an important evidence base for informing future policies, programs, and discussions aimed at strengthening societal resilience to disinformation.

Readers may access the full report of the Mapping Study of Disinformation in Mongolia by scanning the QR code provided below.



1. Study Rationale

In recent years, disinformation has become an increasingly significant challenge in Mongolia, generating tangible risks and adverse consequences at the societal level. The Mapping Study of Disinformation in Mongolia, conducted in December 2025 as the foundation for the present study, found that disinformation is disseminated widely through multiple sources and channels. Beyond persuading individuals to believe specific false claims, disinformation contributes to broader confusion, weakens public trust in information, and increases societal vulnerability to manipulation and misinformation (IRIM, 2025). Furthermore, a nationally representative survey found that 85.8% of Mongolians consider disinformation to be a major societal problem (IRI, 2024), highlighting both the scale and perceived impact of the issue.

Despite growing concern, previous studies conducted in Mongolia have largely focused on specific topics, communication channels, or technical aspects of disinformation. Comprehensive research examining the broader disinformation ecosystem, particularly the mechanisms through which individuals receive, interpret, evaluate, and share information, remains limited. While the Mapping Study sought to understand how and why disinformation has become increasingly prevalent, the present study aims to identify what makes individuals vulnerable to disinformation.

Accordingly, the primary motivation for this study is to quantitatively measure vulnerability to disinformation, identify the cognitive, psychological, and behavioral factors that contribute to such vulnerability, and determine which groups may be more susceptible based on empirical evidence. The study is distinctive in its attempt to explain how social, psychological, cognitive, and group-level mechanisms interact to shape vulnerability to disinformation, while also exploring opportunities to mitigate these influences.

Therefore, the primary objective of this study is not only to measure vulnerability to disinformation but also to identify the factors that shape such vulnerability and use this evidence to inform the development of future intervention models. Together, the Mapping Study and the present study contribute to a more comprehensive understanding of disinformation in Mongolia. Moving beyond the question of “What is the problem?”, they provide evidence to address the questions “Why does it occur?” and “What should be done next?”, thereby supporting the development of evidence-based policy responses and intervention strategies.

2. Methodology

2.1 Study Objectives and Research Questions

The primary objective of this study was to assess youth vulnerability to disinformation and identify the factors that influence such vulnerability. To achieve this objective, the study sought to answer the following key questions:

- **How vulnerable are young people to disinformation?**
Findings from the previous Mapping Study identified young people as one of the groups most susceptible to disinformation due to factors such as limited media and information literacy and other underlying vulnerabilities. Accordingly, this study aimed to quantitatively assess the level of vulnerability to disinformation among young people.
- **How does media and information literacy influence vulnerability to disinformation?**
International research consistently identifies Media and Information Literacy (MIL) as a key factor contributing to resilience against disinformation. Therefore, this study examined the level of media and information literacy among Mongolian youth, the demographic and social factors associated with it, and its relationship with vulnerability to disinformation.
- **What role do information-related behaviors and psychological factors play?**
The ways in which individuals receive, process, evaluate, and share information can directly influence their decisions to believe or disseminate false information. The study therefore examined the effects of cognitive processes, belief-based judgments, and emotional responses on vulnerability to disinformation.
- **What are the characteristics of young people's information environments?**
The study also explored the information channels, sources, and environments through which young people consume information, and assessed how these information spaces relate to vulnerability to disinformation.

2.2 Study Design

The study employed a **multi-method quantitative research design** combining **experimental tasks** and **self-report survey instruments** to measure the **Disinformation Vulnerability Index (DVI)** and examine the factors associated with vulnerability to disinformation.

This approach was designed to capture both participants' actual information-related behaviors and their self-reported perceptions, attitudes, and experiences. By integrating these complementary measurement approaches, the study sought to reduce the limitations associated with relying on a single source of data.

In particular, the combined design helps mitigate **social desirability bias**, whereby participants may provide responses that they perceive as socially acceptable rather than accurately reflecting their true beliefs or behaviors. It also reduces measurement errors commonly associated with relying exclusively on subjective self-reports.

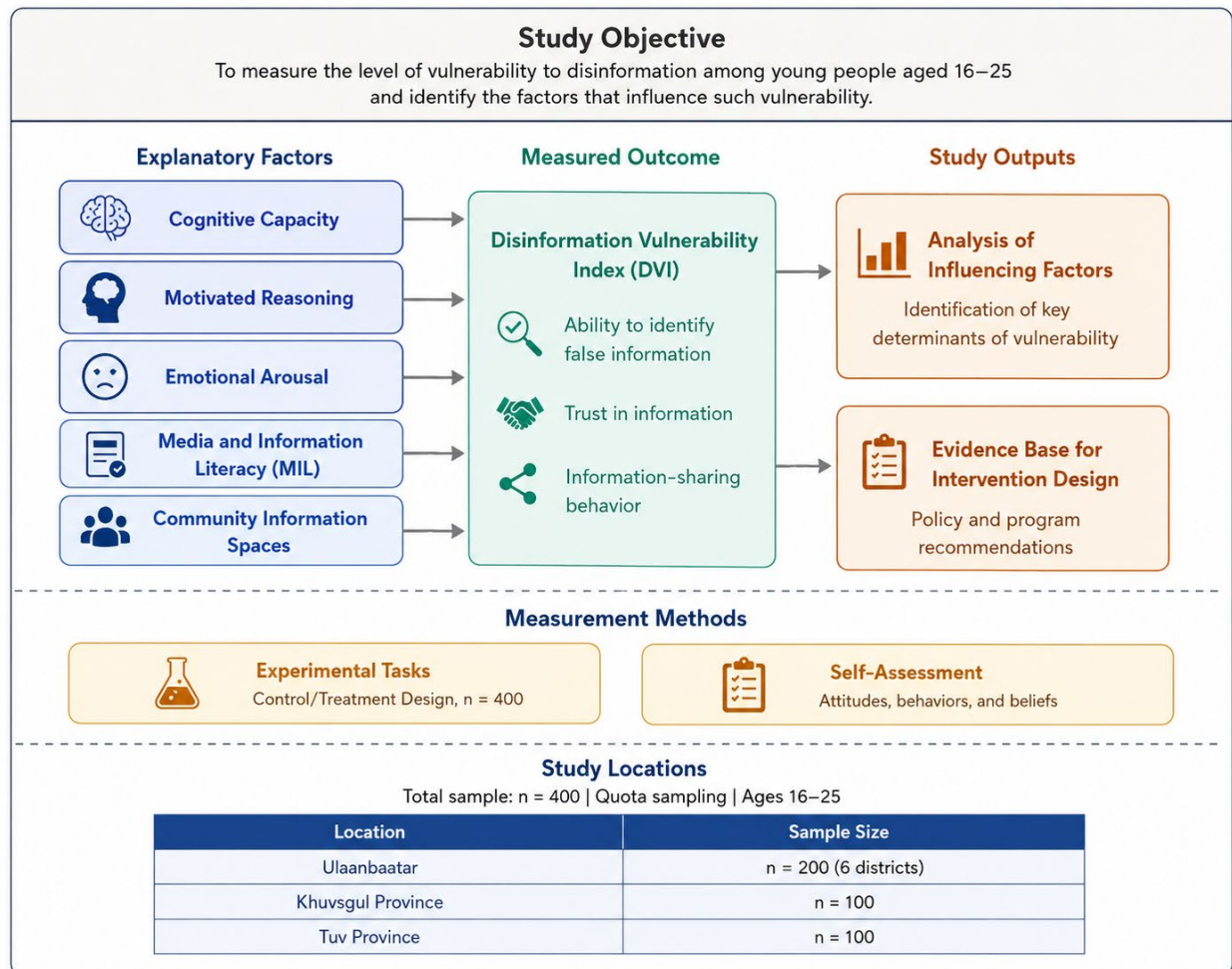
Furthermore, by measuring key constructs through two different methodological approaches and combining them into weighted indices, the study increases the validity and reliability of the resulting measures. This approach provides a more comprehensive and accurate representation of the underlying factors that contribute to vulnerability to disinformation.

2.3 Measurement Framework and Questionnaire Structure

Drawing on findings from previous studies on disinformation, the analytical framework for this study was developed based on the assumption that youth vulnerability to disinformation is influenced by socio-demographic characteristics, levels of media and information literacy, cognitive processes, and psychological factors.

To assess youth vulnerability to disinformation, participants were presented with a total of ten information items, consisting of five false and five true pieces of content. Vulnerability was measured through a composite index capturing three dimensions: the ability to distinguish false information, belief in information, and willingness to share information.

Figure 1. Study design



To measure cognitive and psychological factors, a review of the literature was conducted to identify the individual-level factors most consistently associated with vulnerability to disinformation. Three key dimensions were identified: (1) Cognitive Capacity, (2) Motivated Reasoning, (3) Emotional Arousal

All sub-indicators under these cognitive and psychological dimensions were assessed using two complementary measurement approaches: experimental tasks and self-report measures.

The information stimuli used in the study were selected to reflect real-world information environments. A two-stage screening process was conducted using a database of 921 fact-checked claims reviewed by the Mongolian Fact-Checking Center between March 2023 and March 2025. Based on this process, five true and five false information items were selected for inclusion in the study. To minimize content-specific effects and measurement bias, all selected items were standardized in terms of presentation and formatting before being incorporated into the experimental tasks.

Experimental design: To reduce bias arising from the selection of specific information items, the study employed an experimental design in which participants were exposed to different combinations of content while maintaining a balanced distribution of true and false information.

A Latin Square rotation procedure was used to randomly assign different information items to participants. This approach minimized potential effects attributable to the characteristics of individual stimuli and improved the reliability of the measurement. In addition, participants were assigned to either a Control Group (n=200) or a Treatment Group (n=200), allowing for comparative analyses under different experimental conditions.

Questionnaire structure: The questionnaire was organized into the following sections:

1. Demographic information
2. Disinformation Vulnerability Assessment
3. Media and Information Literacy (MIL) Assessment
4. Cognitive and Psychological Factors
 - Experimental Tasks (varying by control and treatment groups)
 - Self-Report Measures
5. Community Information Space Assessment

2.4 Study Sample and Target Population

Young people aged 16–25 were selected as the target population for this study. Findings from the previous Mapping Study indicated that age is an important factor associated with vulnerability to disinformation. In particular, younger individuals may be more susceptible due to the ongoing development of critical information evaluation skills, attention regulation, and cognitive information-processing capacities. Accordingly, this study focused on young people in order to:

- examine a population group identified as being at relatively higher risk of exposure to disinformation;
- identify priority target groups for future interventions; and
- measure cognitive and psychological characteristics through performance-based assessments.

A total of 400 participants were included in the study. Of these, 200 participants were recruited from Ulaanbaatar, while the remaining 200 participants were recruited from Khuvsgul and Tuv provinces (100 participants from each province).

The study sought to achieve a balanced distribution across three age groups. In terms of gender, 54% of participants were female. Regarding employment status, 23% were employed, 67% were students, and approximately 10% were unemployed youth.

Table 1. Sample Distribution

	Ulaanbaatar, 6 districts	Khuvsgul	Tuv	Total
Age				
16-18	67	33	33	133
19-21	67	34	34	135
22-25	66	33	33	132
Gender				
Male	99	43	42	184
Female	101	55	60	216
Total	200	100	100	400

Khuvsgul and Tuv provinces were purposively selected based on the concentration of youth within the target age range, geographic diversity, and variation in socio-economic conditions. To ensure adequate

representation across key population characteristics, a quota sampling approach was employed. Quotas were established for age, gender, education, and employment status to achieve as balanced a sample as possible across these characteristics.

2.5 Study limitations

While this study provides important insights into youth vulnerability to disinformation and its determinants through a combination of experimental tasks, self-report measures, and behavioral indicators, several limitations should be acknowledged.

- The study sample consisted of young people aged 16–25 residing in Ulaanbaatar, Tuv Province, and Khuvsgul Province. As a result, the findings primarily reflect the characteristics, attitudes, and behaviors of this specific population group and should not be generalized directly to the broader population of Mongolia.
- The true and false information stimuli used in the study were selected exclusively from content verified by the Mongolian Fact-Checking Center. Consequently, the findings may be influenced by the scope and characteristics of the fact-checking database from which the stimuli were drawn. Participants' responses may differ when exposed to other types of content, platforms, or information environments. Although all stimuli were standardized in terms of format and presentation to minimize content-specific effects and visual biases, the study could not fully replicate the complex conditions of real-world online environments, including platform algorithms, user comments, visual cues, and patterns of information dissemination.
- The news items, fact-checking content, and engagement cues used in the experimental tasks were designed to resemble real social media environments as closely as possible. Nevertheless, participants' responses in an experimental setting may differ from their actual behaviors and decision-making processes when interacting with information in everyday life.
- The study employed a cross-sectional design, collecting data at a single point in time. While this allows for the identification of statistical associations among variables, it does not permit definitive conclusions regarding causal relationships.
- The Disinformation Vulnerability Index (DVI) was developed as a composite measure of vulnerability to disinformation. However, no single index can fully capture the complexity of human information processing and decision-making. While the DVI provides a useful framework for assessing vulnerability, further validation and refinement are needed to strengthen its applicability across different populations and contexts.

3. Study findings

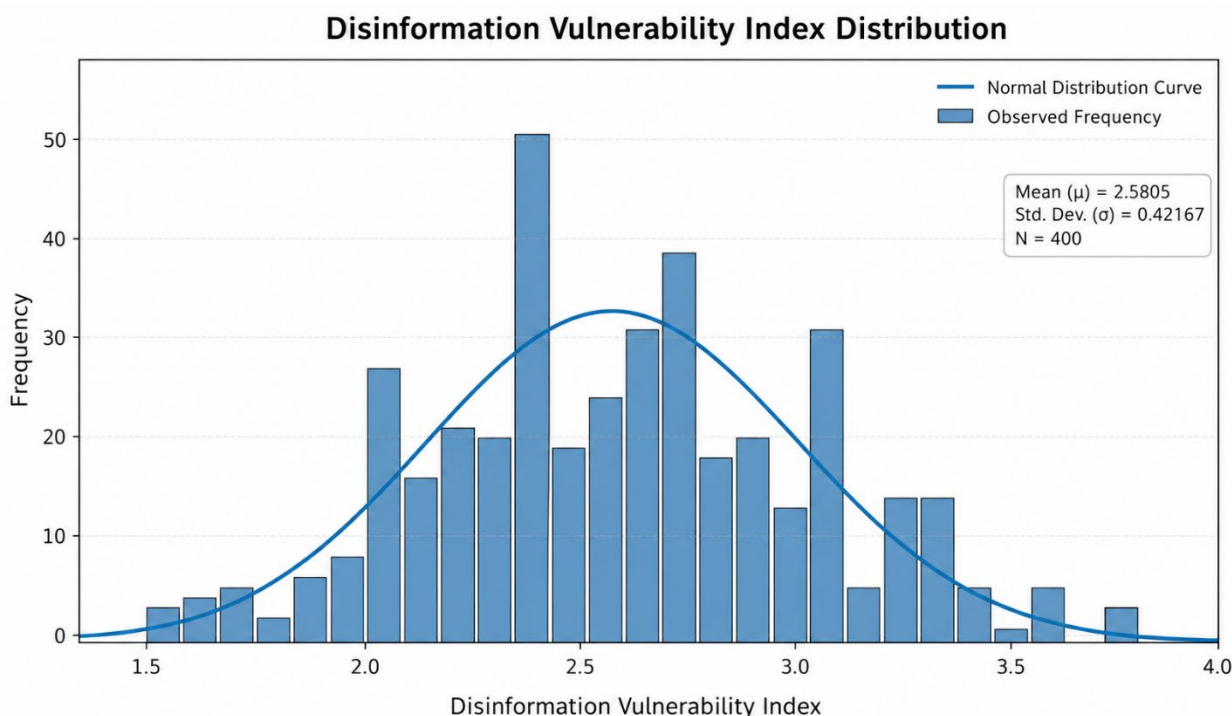
3.1. How Vulnerable Are Young People to Disinformation?

Findings from the Mapping Study of Disinformation in Mongolia identified young people as one of the groups potentially vulnerable to disinformation due to factors such as limited media and information literacy, weaker critical thinking skills, and other underlying characteristics (IRIM, 2025). Building on these findings, the present study sought to quantitatively measure the level of youth vulnerability to disinformation through the development of a Disinformation Vulnerability Index (DVI).

The DVI was calculated using participants' responses to ten information items consisting of five fact-checked false claims and five fact-checked true claims. The index combines three dimensions of vulnerability: the ability to distinguish false information from true information, belief in information, and willingness to share information.

The findings indicate that the average DVI score among participating youth was **2.58 on a five-point scale**, suggesting a **moderate level of vulnerability to disinformation** (Figure 2). Examining the three components separately, respondents showed relatively strong ability to identify false information (2.85), less consistent trust in true information (2.71), and a moderate propensity to share false information (2.18). Together, these patterns suggest that overall vulnerability to disinformation remains at a moderate level.

Figure 2. Disinformation Vulnerability Index (DVI) among Youth (1–5 Scale)



**Note: 1 = Low vulnerability; 5 = High vulnerability.*

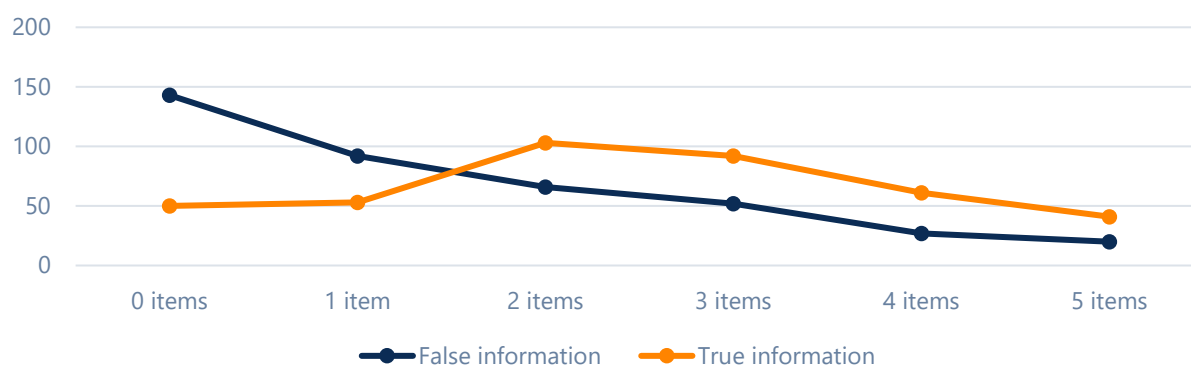
The results further show that young people performed relatively well in distinguishing false information. Overall, 75.3% of participants correctly identified all false information items or misclassified no more than two items. More specifically, 35.8% of respondents correctly rejected all five false information items presented in the study (Figure 3).

On average, participants believed 29.4% of the false information items presented, corresponding to a mean score of 1.47. By comparison, skepticism toward false information was slightly higher, with an average score of 1.68, and 33.6% of respondents rejected all false information items. This can be considered a positive finding. Nevertheless, 31.5% of participants failed to correctly identify any false information item, either

believing the information or expressing uncertainty about its accuracy. It is important to note that these measures do not necessarily reflect the ability to identify more sophisticated political disinformation narratives or complex misleading claims that are difficult to independently verify.

In contrast, the ability to recognize true information was less consistent. More than half of respondents (51.5%) either rejected or expressed doubt about all or some of the true information items presented. Although participants correctly believed approximately 49.2% of the true information items overall, 62.5% expressed disbelief or uncertainty toward at least one true information item. This pattern may indicate a broader decline in trust toward information in general.

Figure 3. Distribution of Youth Ability to Distinguish True and False Information



Overall, the findings suggest that young people demonstrate relatively strong abilities to identify false information. Across all information assessments included in the study, 41.4% of responses correctly distinguished between true and false information, with participants rejecting false information and accepting true information. This represents a positive indicator that contributes to reducing vulnerability to disinformation.

However, several concerning patterns also emerged.

First, participants incorrectly evaluated the accuracy of information in 27.0% of all assessments, either believing false information or rejecting true information. In practical terms, this suggests that approximately **one in four evaluations resulted in a misjudgment of information accuracy.**

Second, participants expressed uncertainty in **31.6% of all responses, indicating that they were unable to determine whether information was true or false.** While skepticism can serve as a protective mechanism against blindly accepting disinformation, excessive uncertainty may also indicate limitations in information evaluation and decision-making skills. Notably, participants were more likely to express uncertainty toward false information (37.0%) than toward true information (26.2%).

In other words, the relatively moderate level of vulnerability observed among young people is not solely attributable to their ability to identify false information. It is also partly associated with a broader tendency to approach information with skepticism rather than accepting it at face value.

3.2. What Factors Influence Youth Vulnerability to Disinformation?

This study examined whether youth vulnerability to disinformation, measured through the DVI, is associated with four broad categories of factors. Each category consisted of several sub-variables, which were first analyzed individually to assess their relationship with the DVI. Subsequently, multiple variables were examined simultaneously to identify which factors exerted the strongest influence and to determine how much of the variation in vulnerability could be explained collectively through regression analysis.

The analysis focused on four categories of factors:

- Demographic and socio-economic factors
- Media and information literacy (MIL)
- Cognitive and psychological factors
- Community information environments

The findings for each category are presented in the following sections.

3.2.1 Influence of Demographic and Socio-Economic Factors

The findings indicate that demographic and socio-economic characteristics, when examined individually, were not significantly associated with vulnerability to disinformation. However, when considered collectively, these factors demonstrated a modest relationship with vulnerability.

Statistical analyses examining the relationship between demographic and socio-economic variables and the DVI (Table 2) showed that none of the individual variables served as a primary predictor of youth vulnerability to disinformation. In other words, demographic characteristics alone did not directly explain differences in vulnerability among participants.

Table 2. Relationship Between Demographic and Socio-Economic Characteristics and Vulnerability to Disinformation

Variables	Group	n	Vulnerability	SD	Statistics	p
Gender	Male	184	40.31	11.82	$t(398) = 1.39$	.164
	Female	216	38.83	9.29		
Age	—	400	—	—	$r = -.017$	.742
Ethnicity	Khalkh	350	39.61	10.53	$t(398) = 0.49$	.627
	Other ethnic groups	50	38.83	10.72		
Marital status	Single	366	39.14	10.49	$F(2, 397) = 2.75$	.065
	Married	27	43.89	10.62		
	Cohabiting	7	41.90	10.38		
Religion	Buddha	95	37.81	9.53	$F(3, 396) = 1.78$	.150
	Shamanism	59	41.81	9.64		
	No religion	231	39.62	11.08		
	Other	15	39.67	10.56		
Education	No education	3	44.44	10.05	$\rho = -.072$	.149
	Primary, Lower Secondary	25	41.67	9.03		
	Upper secondary, Technical/Vocational	306	39.80	10.76		
	Tertiary	66	37.15	9.84		
Employment	Full-time employed	74	39.50	9.86	$F(3, 396) = 0.12$	.948
	No employed	35	40.52	9.87		
	Student	269	39.41	10.91		
	Other	22	39.24	9.70		
Household income	$\leq 900,000$	49	41.43	10.26	$\rho = -.056$	.260
	900,001–2,100,000	131	38.94	9.90		
	2,100,001–3,000,000	91	40.29	10.87		
	3,000,001–4,000,000	78	39.23	10.49		
	$\geq 4,000,001$	51	38.17	11.91		
Location	Ulaanbaatar	200	39.62	11.08	$F(2, 397) = 0.70$	.497
	Province center	81	38.35	8.81		
	Soum center	119	40.13	10.72		

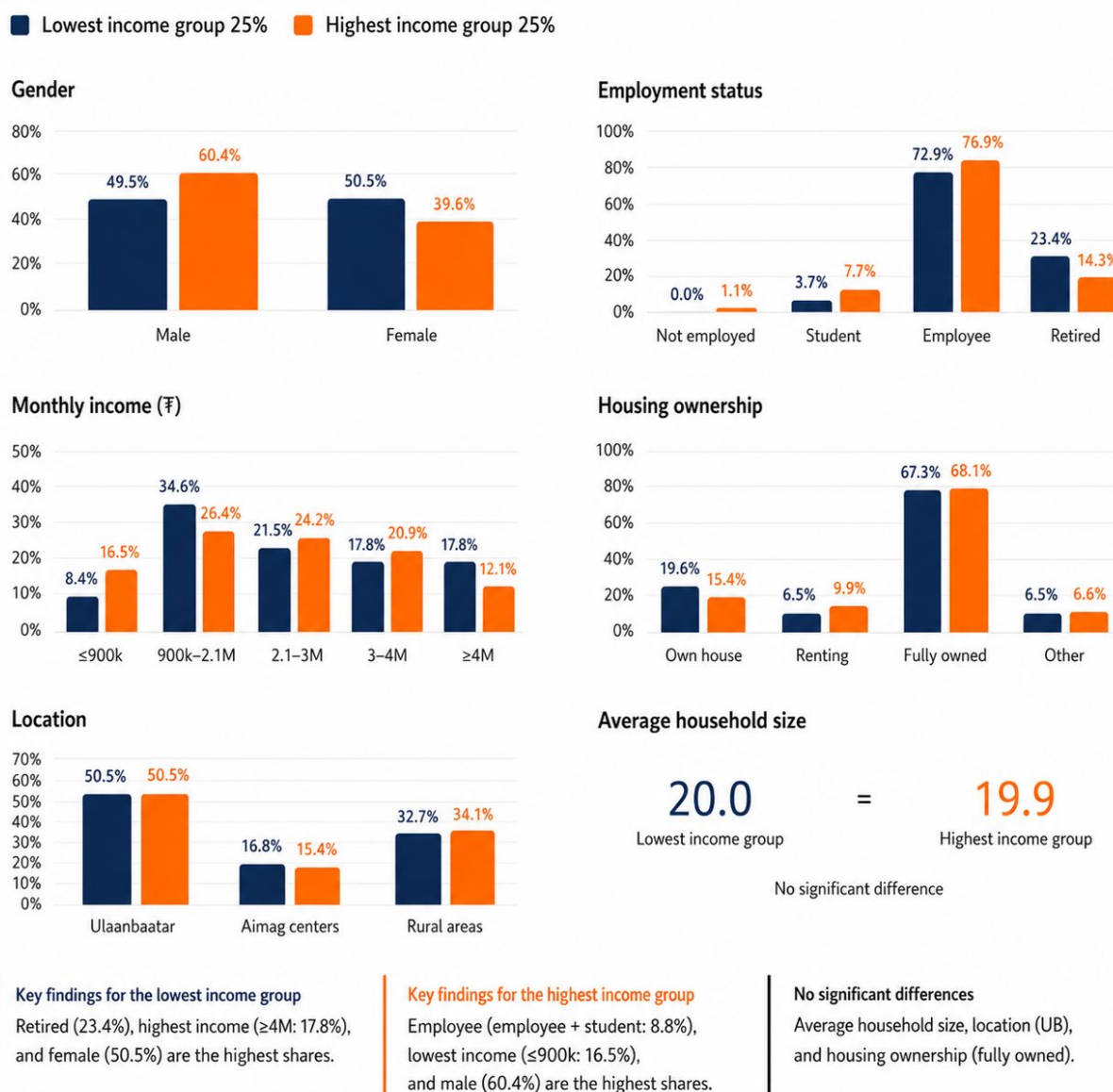
Note. SD = Standard Deviation. t and F statistics represent group comparisons. Pearson correlation coefficients were used for age, while Spearman correlation coefficients were used for education level and household income. Statistical significance was assessed at $p < .05$.

To further explore differences between individuals with the lowest and highest levels of vulnerability, the analysis compared participants in the lowest 25% and highest 25% of the DVI distribution (Figure 4).

The results showed few meaningful differences between the two groups in terms of age, location, and employment status. The average age was nearly identical across groups, the proportion of participants residing in Ulaanbaatar was similar, and students constituted comparable shares of both groups.

Some differences were observed in education, household income, and gender. Participants in the most vulnerable group tended to have lower educational attainment, lower household incomes, and a slightly higher proportion of male respondents. In contrast, participants in the least vulnerable group were more likely to have higher levels of education, higher household incomes, and a greater proportion of female respondents. However, these differences should not be interpreted as causal relationships; rather, they provide a descriptive profile of the groups with the highest and lowest levels of vulnerability.

Figure 4. Demographic Profiles of the Most Vulnerable and Least Vulnerable 25% of Participants



To assess the combined influence of demographic and socio-economic factors on vulnerability to disinformation, a multiple linear regression analysis was conducted. The overall model was statistically significant ($F(9, 390) = 2.18, p = .023$), indicating that these characteristics collectively contributed to explaining variation in vulnerability.

Nevertheless, the explanatory power of the model was very limited ($R^2 = .048$), meaning that demographic and socio-economic characteristics accounted for only 4.8% of the variation in youth vulnerability to disinformation.

Taken together, these findings suggest that vulnerability to disinformation cannot be adequately explained by demographic and socio-economic characteristics alone, such as age, gender, income, or place of residence. Although higher educational attainment was associated with a slight tendency toward lower vulnerability, demographic characteristics were not the primary determinants of the DVI.

Therefore, rather than concluding that a specific demographic group is inherently more vulnerable to disinformation, the findings suggest that vulnerability is a broadly distributed phenomenon affecting multiple segments of the population. This highlights the importance of looking beyond demographic characteristics and considering how individuals receive, process, evaluate, and trust information. Cognitive, psychological, and behavioral factors are likely to play a more important role in explaining vulnerability to disinformation than demographic characteristics alone.

3.2.2 Influence of Media and Information Literacy

According to UNESCO (2013), Media and Information Literacy (MIL) is defined as “a set of competencies that empowers citizens to access, retrieve, understand, evaluate, use, create, and share information and media content in all formats through various tools and platforms.” Based on this framework, a media and information literate individual possesses competencies in three key areas:

1. Access and Retrieval of Information
2. Understanding and Evaluation of Information
3. Creation and Utilization of Information

Following UNESCO’s framework, this study developed a self-assessment measure of Media and Information Literacy (MIL). Participants were asked to rate themselves on twelve statements related to media and information literacy using a five-point scale. The items were adapted from instruments developed by Moto, Ratanaolarn, Tuntiwongwanich, and Pimdee (2018), Jones-Jang, Mortensen, and Liu (2019), and Karlina (2019), with modifications to fit the objectives and context of the present study.

The findings indicate that young people generally rated their own MIL relatively highly. The average self-assessed MIL score was **3.88 out of 5.00**, corresponding to a “good” level of literacy. Participants gave the highest ratings to their ability to use search engines to find information (4.26) and their ability to correct misinformation after realizing that they had shared inaccurate information (4.24). In contrast, the lowest-rated competency was the ability to express opinions and participate in discussions through media organizations (2.76) (Table 3).

Self-assessed MIL demonstrated weak but statistically significant relationships with age, education level, household income, and place of residence. Participants tended to rate their MIL more highly as age ($r = .214$, $p < .001$), education level ($p = .226$, $p < .001$), and household income ($p = .118$, $p = .018$) increased.

Table 3. Self-Assessed Media and Information Literacy by Item (1–5 Scale)

Nº	Statement*	Mean Score
1	I can search for and access information from multiple sources.	4.13
2	I can use search engines to find information.	4.26
3	I use advanced search techniques.	3.92
4	I can store information and retrieve it for future use.	4.03
5	I can understand the purpose and message of information.	4.13
6	I can synthesize and draw conclusions from information obtained from multiple sources.	3.96
7	I evaluate the credibility of information sources.	3.81
8	Before believing information, I check who created it, when it was published, and where it originated.	3.90

9	I can create and communicate information in an ethical manner.	3.73
10	I can express my views through media organizations and channels.	2.76
11	I use appropriate methods when sharing information.	3.69
12	If I realize that I have shared inaccurate information, I correct it.	4.24
Overall Mean		3.88

* For reporting purposes, abbreviated versions of the original statements are presented.

Differences were also observed by location ($F(2,397) = 3.20, p = .042$). Young people residing in soum centers ($M = 3.7$) rated their MIL lower than those living in Ulaanbaatar ($M = 3.9$) and provincial centers ($M = 4.0$).

When examined by the three core dimensions of MIL, participants reported the highest confidence in their ability to **access information** (Items 1–4; $M = 4.09$), followed by their ability to **understand and evaluate information** (Items 5–8; $M = 3.95$). The lowest scores were observed for **creating and utilizing information** (Items 9–12; $M = 3.61$) (Figure 5). These findings suggest that respondents felt more confident in finding and evaluating information than in actively creating, communicating, or participating in information-related activities.

Figure 5. Self-Assessed Media and Information Literacy by Component (1–5 Scale)



Despite these relatively high self-assessments, MIL was not significantly associated with vulnerability to disinformation. A linear regression analysis examining whether self-assessed MIL predicted the DVI found no statistically significant relationship ($F(1, 398) = 0.152, p = .697, R^2 = .000$).

In practical terms, this means that participants who rated themselves as highly competent in working with information were not necessarily less vulnerable to disinformation than those who rated themselves less favorably. Similarly, lower self-assessed MIL did not automatically correspond to higher levels of vulnerability.

Further regression analyses examining the three core dimensions of MIL separately also found no statistically significant relationships with vulnerability to disinformation (Access and Retrieval: $p = .135$; Understanding and Evaluation: $p = .830$; Creation and Utilization: $p = .155$).

Taken together, these findings indicate that although **young people generally perceive themselves as having above-average levels of media and information literacy, these self-assessments do not explain differences in vulnerability to disinformation.** In other words, self-reported MIL may not accurately reflect actual competencies. Individuals may perceive themselves as skilled in working with information, yet still encounter difficulties in accurately evaluating, verifying, or distinguishing between true and false information in practice.

Importantly, these findings should not be interpreted as evidence that media and information literacy has no role in reducing vulnerability to disinformation. Rather, they suggest that self-assessment measures alone may be insufficient for capturing the competencies most relevant to resisting disinformation. Future studies should therefore incorporate more objective and performance-based measures of media and information literacy to better understand its relationship with vulnerability to disinformation.

3.2.3 Influence of Cognitive and Psychological Factors

Several studies on disinformation in Mongolia have suggested that individuals' susceptibility to disinformation is influenced not only by external factors such as the information environment, the characteristics of disinformation, and dissemination techniques, but also by personal characteristics of information recipients themselves (IRIM, 2025; OptimalNMax, 2024). International research similarly highlights the importance of cognitive information-processing styles and psychological mechanisms in shaping individuals' responses to misinformation and disinformation (Bastick, 2021; Lewandowski, 2024; Wolters et al., 2021).

Building on findings from the literature review, this study identified three factors that have been most consistently associated with vulnerability to disinformation at the individual level and examined their influence on youth vulnerability to disinformation: (1) Cognitive Capacity, (2) Motivated Reasoning, (3) Emotional Arousal.

Figure 6. Sub-indicators Measured under the Cognitive and Psychological Factors Framework



1. Cognitive capacity. Cognitive factors refer to an individual's ability to process information analytically and critically. Research suggests that people do not always engage in deliberate evaluation of information; instead, they often rely on fast, automatic forms of thinking (System 1 processing), making judgments without carefully verifying accuracy. To capture this dimension, the study measured three indicators: (1) Inattentive information processing; (2) Reliance on repetition as a cue for truthfulness (illusory truth effect); and (3) Truth-default tendencies, or the tendency to accept information as true without questioning its source.

2. Motivated reasoning. Individuals often evaluate information not solely on the basis of its accuracy but also according to whether it aligns with their existing beliefs, values, and group identities (Pennycook & G Rand, 2021). The study measured motivated reasoning through four indicators: (1) Responses to information that contradicts existing beliefs; (2) Social conformity and the tendency to follow others' opinions; (3) Uncritical trust in information sources; and (4) Resistance to corrective information.

3. Emotional arousal. High-arousal emotions such as fear, anger, disgust, and anxiety can substantially alter information-processing processes (Lewandowski, 2024; Wolters et al., 2021). Such emotional states are often associated with increased reliance on heuristic judgments, reduced fact-checking behavior, and greater willingness to share emotionally charged content.

Research further suggests that information framed around moral and emotional themes tends to appear more convincing, spreads more rapidly, and reduces individuals' motivation to verify facts. Accordingly, emotional influences were assessed through two indicators: (1) Responses to highly emotionally arousing content; and (2) Responses to information framed around fairness, morality, and ethical concerns.

Overall, the findings indicate that youth vulnerability to disinformation is largely shaped by the combined influence of cognitive capacity, motivated reasoning, and emotional arousal. Together, these three factors explain 27.9% of the variation in the DVI, suggesting that a substantial portion of vulnerability is associated with how individuals receive, process, interpret, and emotionally respond to information.

Results from the multiple regression analysis presented in Table 4 show that **cognitive capacity exerted the strongest influence on vulnerability** ($\beta = 0.290$), followed by **motivated reasoning** ($\beta = 0.218$) and **emotional arousal** ($\beta = 0.207$). All three factors were statistically significant ($p < .001$). Variance Inflation Factors (VIFs) ranged from 1.1 to 1.3, indicating minimal multicollinearity and supporting the reliability of the model.

These findings suggest that while the ability to critically process information plays a foundational role, individuals do not evaluate information purely through rational analysis. Instead, interpretations are also shaped by existing beliefs and emotional reactions. In other words, vulnerability to disinformation emerges from the interaction of cognitive, motivational, and emotional mechanisms rather than from cognitive processes alone.

Table 4. Multiple Regression Analysis of Factors Influencing the DVI

Sub-indicators	B	Std. Error	β (Standardized)	t	p-value	95% CI (Lower–Upper)	VIF
Cognitive	0.379	0.059	0.290	6.441	<0.001	0.263 – 0.495	1.113
Motivated reasoning	0.224	0.050	0.218	4.488	<0.001	0.126 – 0.323	1.299
Emotional arousal	0.156	0.036	0.207	4.343	<0.001	0.085 – 0.227	1.250
Constant	2.860	3.077	–	0.930	0.353	-3.188 – 8.909	–

The influence of these factors also varied across different environments. As shown in Table 5, the explanatory power of the model was substantially higher in urban settings ($R^2 = 0.388$) than in rural settings ($R^2 = 0.190$).

Among urban youth, emotional arousal emerged as the strongest predictor of vulnerability ($\beta = 0.334$), suggesting that emotionally charged content plays a central role in increasing susceptibility to disinformation. In rural areas, by contrast, emotional factors were not statistically significant. Instead, vulnerability was primarily associated with cognitive capacity and motivated reasoning.

These findings indicate that emotional characteristics of information may be particularly influential in urban environments, whereas logical information processing and belief-based evaluation play a greater role in rural contexts. They also suggest that the mechanisms underlying vulnerability are more predictable and clearly defined among urban youth than among rural youth.

Table 5. Factors Influencing the DVI by Location

Sub-indicators	Urban	Rural	Interpretation
Cognitive	✓ ($\beta=0.294$)	✓ ($\beta=0.280$)	Important in both settings
Motivated reasoning	✓	✓	Consistently significant across both settings
Emotional arousal	✓ (strongest predictor)	✗ (not statistically significant)	Key difference between urban and rural youth
R^2	0.388	0.190	Higher explanatory power in urban areas

When the analysis was conducted by age group, the results revealed a developmental shift in the factors associated with vulnerability (Table 6). As young people grow older, vulnerability becomes increasingly associated with belief-based interpretations of information, while the influence of emotional factors tends to diminish.

Among respondents aged 16–18, all three factors were statistically significant, with cognitive capacity exerting the strongest influence. This suggests that both cognitive processing and emotional responses play important roles during adolescence. Among respondents aged 19–21, motivated reasoning was no longer statistically significant, while cognitive and emotional factors remained influential. Among respondents aged 22–25, motivated reasoning emerged as the strongest predictor of vulnerability, while emotional influences became less prominent.

Table 6. Factors Influencing the DVI by Age Group

Sub-indicator	16–18	19–21	22–25	Interpretation
Cognitive	✓(strongest predictor)	✓ (strongest predictor)	✓	Consistently significant across all age groups
Motivated reasoning	✓	✗	✓ (strongest predictor)	Influence increases with age
Emotional arousal	✓	✓	✗	Influence decreases with age
R ²	0.331	0.250	0.284	Highest explanatory power among adolescents (16–18)

A further segmented analysis combining location and age demonstrated that vulnerability to disinformation is not a uniform phenomenon. Rather, it is shaped by different mechanisms depending on both age and living environment (Table 6).

In urban areas, emotional influences remained consistently important across all age groups and reached their highest levels among respondents aged 19–21. Among those aged 22–25, motivated reasoning became the dominant factor.

In rural areas, emotional influences were largely absent. Vulnerability among younger respondents was driven primarily by motivated reasoning, whereas cognitive factors became increasingly important among older respondents. Notably, no clear explanatory pattern emerged among rural youth aged 19–21, suggesting that additional factors not captured in the current model may play a role in shaping vulnerability within this group.

Table 7. Factors Influencing the DVI by Location and Age

Location × Age Group	Primary Driver	Secondary Driver	Weak / Non-significant	Vulnerability Profile
Urban 16–18	Cognitive Capacity	Emotional Arousal	Motivated Reasoning	Cognitive–Emotional Vulnerability
Urban 19–21	Emotional Arousal	Cognitive Capacity	Motivated Reasoning	Predominantly Emotion-Driven Vulnerability
Urban 22–25	Motivated Reasoning	Emotional Arousal	Cognitive Capacity	Belief- and Emotion-Driven Vulnerability
Rural 16–18	Motivated Reasoning	Cognitive	Emotional Arousal	Belief-Driven Vulnerability
Rural 19–21	No clear dominant factor			No distinct vulnerability pattern identified
Rural 22–25	Cognitive Capacity	—	Emotional Arousal, Motivated Reasoning	Predominantly Cognitive Vulnerability

Examining the dynamics within urban and rural contexts separately reveals further differences (Table 8). **Among urban youth, emotional influences remained stable across all age groups, while the importance of cognitive factors gradually declined and motivated reasoning became increasingly influential with age.** This pattern suggests a transition from vulnerability driven primarily by information-processing limitations toward vulnerability shaped more strongly by belief-based interpretations.

In rural settings, by contrast, emotional influences were consistently negligible. Different factors dominated at different stages of youth development, and no single pattern emerged across age groups. This suggests that vulnerability mechanisms in rural environments are more diffuse and less predictable than those observed in urban areas.

Table 8. Factors Influencing the DVI by Location and Age: Comparative Trends

Sub-indicator	16–18	19–21	22–25	Trend
Urban				
Cognitive	✓ (strongest predictor)	✓	✗	↓ Decreases with age
Motivated reasoning	✗	✗	✓ (strongest predictor)	↑ Increases with age
Emotional arousal	✓	✓ (strongest predictor)	✓	Stable across age groups
Model Explanatory Power	Very high	High	High	
Rural				
Cognitive	✓	✗	✓ (strongest predictor)	U-shaped pattern
Motivated reasoning	✓ (хамгийн хүчтэй)	✗	✗	↓ Decreases with age
Emotional arousal	✗	✗	✗	Minimal influence
Model Explanatory Power	Moderate	Low	Moderate	

Overall, these findings demonstrate that vulnerability to disinformation is not simply a matter of being more or less vulnerable. Rather, it is a multidimensional phenomenon shaped by distinct underlying mechanisms. Consequently, interventions designed to reduce youth vulnerability should not be based solely on vulnerability levels. Instead, they should be tailored to the specific mechanisms driving vulnerability within different groups.

For example, urban interventions may be more effective if they focus on reducing the influence of emotionally manipulative content, whereas interventions in rural areas may benefit from strengthening foundational skills such as information verification, source evaluation, and critical information processing, complemented by flexible approaches informed by additional research and local context.

3.2.3 Influence of Cognitive Factors

To examine whether cognitive factors contribute to youth vulnerability to disinformation, the study developed a cognitive vulnerability index measuring the extent to which participants: (i) read and remember information attentively, (ii) accept information as true without questioning it, and (iii) are more likely to believe information that has been repeatedly encountered. The index was measured on a scale from 0 to 100 and consisted of three equally weighted sub-components. Each sub-component was calculated using a combination of performance on experimental tasks (60%) and self-reported assessments (40%) (Table 9). Higher scores indicate greater cognitive vulnerability.

Table 9. Methodology and Results of the Cognitive Vulnerability Index

Sub-indicator	Experimental Task (60%)	Self-assessment (40%)	Mean Index Score
Tendency to accept information as true without skepticism	Participants were shown information and asked about their immediate reactions, including whether they believed or doubted the information.	Participants assessed their tendency to believe information upon first exposure.	50.3 (SD = 12.5)

Tendency to perceive repeated information as true	Participants were exposed to the same information presented in three different formats and asked to determine whether it was true or false.	Participants assessed their tendency to trust information that they encounter repeatedly.	49.9 (SD = 10.9)
Tendency to accept information without careful scrutiny	Participants completed a recall test measuring how well they remembered specific facts and details from previously viewed information.	Participants assessed how well they usually remember details and factual information from content they read.	44.1 (SD = 14.9)
Average			48.1

The average cognitive vulnerability score among the 400 participants was **48.1**, with scores ranging from 22.5 to 74.2. These findings suggest that tendencies such as accepting information at face value, trusting repeated information, and failing to closely scrutinize information were relatively common among participants.

Cognitive vulnerability was also associated with several socio-economic and demographic characteristics. Higher levels of education ($p = -.139$, $p < .05$) and household income ($p = -.102$, $p < .05$) were associated with lower levels of cognitive vulnerability. In addition, differences were observed across locations ($F(2, 397) = 3.55$, $p = .030$). Participants residing in soum centers exhibited slightly higher cognitive vulnerability ($M = 49.59$) than those living in Ulaanbaatar ($M = 47.83$) and provincial centers ($M = 46.62$).

More importantly, cognitive vulnerability was found to significantly increase vulnerability to disinformation. A linear regression analysis examining the relationship between cognitive factors and the DVI revealed a statistically significant positive effect ($\beta = 0.403$, $p < .001$). The overall model was highly significant ($F(1, 398) = 77.06$, $p < .001$), indicating that the combined influence of the following tendencies substantially increases vulnerability to disinformation:

1. Accepting information without careful scrutiny;
2. Believing information without skepticism; and
3. Perceiving repeated information as more truthful.

To further identify which cognitive mechanisms were most influential, the three sub-components were entered simultaneously into a multiple regression model. The results showed that the tendency to accept information as true without skepticism was the strongest predictor of vulnerability, while the tendency to perceive repeated information as true had a moderate positive effect. In contrast, the tendency to accept information without careful scrutiny did not demonstrate a statistically significant effect (Table 10).

Table 10. Regression Results for Cognitive Sub-components and the DVI

Sub-indicator	Statistical Result	Influence on Vulnerability to Disinformation
Accepting information as true without skepticism	$\beta = 0.428$, $p < .001$	Strong positive effect
Perceiving repeated information as true	$\beta = 0.190$, $p < .001$	Moderate positive effect
Accepting information without careful scrutiny	$p = .435$	No statistically significant effect

Note. All three sub-indicators were included simultaneously in the regression model. The overall model was statistically significant ($F(3, 396) = 44.83$, $p < .001$) and explained 25.4% of the variance in the DVI ($R^2 = .254$). Standardized beta coefficients (β) indicate the direction and relative strength of each effect.

These findings suggest that vulnerability to disinformation increases when young people automatically accept information as true upon first exposure. Whether participants carefully read the information was less important than whether they approached it critically or immediately assumed it to be accurate. This

highlights the importance of cultivating habits of skepticism, verification, and reflection before accepting information as true.

The findings also demonstrate that repeated exposure to the same information increases vulnerability to disinformation. In other words, the risk posed by disinformation is not limited to a single encounter; rather, repeated exposure to similar messages across different formats can significantly strengthen their persuasive effect.

Overall, cognitive factors play a critical role in explaining vulnerability to disinformation. Consequently, interventions targeting young people should go beyond teaching technical fact-checking skills. They should also encourage habits of critical reflection, pausing before believing information, and resisting the tendency to automatically accept repeatedly encountered information as true.

2. Influence of Motivated reasoning

The tendency to process information based on pre-existing beliefs and motivations was measured using four sub-components, as presented in Table 11.

Table 11. Methodology and Average Results of the Motivated Reasoning Index

Sub-indicator	Experimental Task (60%)	Self-Assessment (40%)	Mean Index Score
Social conformity index	Participants were shown posts with varying levels of public engagement (high and low numbers of likes and shares), and differences in their responses were compared.	Participants rated the extent to which others' opinions and public sentiment influence their own views.	54 (SD = 14.84)
Trust in sources/authorities index	Participants were shown content with either visible or concealed source information, and differences in trust levels were compared.	Participants rated the importance of who or which organization provides information when deciding whether to trust it.	50.05 (SD = 15.07)
Identity-oriented reasoning index	Participants' baseline beliefs were identified in advance, after which they were exposed to information that either aligned with or contradicted those beliefs. Responses were then compared.	Participants rated how difficult they find it to accept information that contradicts their existing beliefs.	48.06 (SD = 20.44)
Resistance to correction index	Participants were shown fact-checking corrections related to information previously presented and were assessed on whether they revised their original beliefs.	Participants rated how difficult it is to change their opinion after realizing that they had misunderstood something.	36.73 (SD=12.82)
Overall Motivated Reasoning Index		47.21	

Among the sub-indicators, **social conformity** recorded the highest average score (54.0, SD= 14.84), indicating that social influence, including public approval, engagement levels, and perceived majority opinions, plays a relatively strong role in shaping how young people evaluate information. In other words, **young people's perceptions of information are strongly influenced by how others appear to view the same issue.**

The average score for **trust in sources and authorities** was 50.05 (SD = 15.07), suggesting that source credibility and perceived authority exert a moderate influence on whether information is accepted as accurate.

The average score for **identity-oriented reasoning** was 48.06 (SD = 20.44), indicating a moderate tendency to view information as more credible when it aligns with existing beliefs and values. The relatively large

standard deviation suggests substantial variation among participants, implying that this tendency may be particularly pronounced among certain groups.

Залруулгыг хүлээн авахаас татгалзах байдал хамгийн бага буюу 36.73 оноо (SD=12.82) гарсан нь оролцогчдын тодорхой хэсэг нь залруулга, шалгасан баримтын мэдээллийг хүлээн авч анхны буруу ойлголтоо засах хандлагатай байгааг харуулж байна. Нийт итгэл үнэмшилд суурилсан шүүлт (motivated reasoning)-ийн нийлмэл индексийн дундаж 47.21 оноо (SD=10.25) байгаа нь залуучуудын хувьд мэдээллийг үнэлэхдээ зөвхөн логик, баримтад бус, харин нийгмийн нөлөөлөл, эх сурвалжид итгэх байдал, өмнөх итгэл үнэмшил зэрэг хүчин зүйлс тодорхой хэмжээнд нөлөөлж байгааг илэрхийлж байна.

By contrast, **resistance to correction** recorded the lowest average score (36.73, SD = 12.82), suggesting that many participants were willing to revise their views when presented with corrective information and verified evidence.

Overall, the average **Motivated Reasoning Index** score was 47.21 (SD = 10.25), indicating that young people's evaluations of information are influenced not only by facts and logic, but also by social influence, trust in sources, and prior beliefs.

To assess whether motivated reasoning influences vulnerability to disinformation, a regression analysis was conducted using the Motivated Reasoning Index as a predictor of the Disinformation Vulnerability Index (DVI). The results revealed a statistically significant and moderately strong positive relationship ($\beta = 0.395$, $p < .001$). In other words, **as motivated reasoning increases, vulnerability to disinformation also tends to increase.**

The Motivated Reasoning Index explained **15.6% of the variance in the DVI**, indicating that the way individuals interpret, evaluate, and respond to information contributes meaningfully to their vulnerability to disinformation. Furthermore, the confidence interval remained entirely positive, suggesting that the observed relationship is relatively stable and unlikely to be due to chance.

Taken together, these findings indicate that individuals do not evaluate information solely through logic and evidence. Rather, information is filtered through cognitive and psychological mechanisms such as:

- preferring information that aligns with existing beliefs;
- following the opinions and behaviors of others;
- placing uncritical trust in familiar or authoritative sources; and
- maintaining initial beliefs even after corrective information is provided.

Collectively, these tendencies systematically increase vulnerability to disinformation among young people.

However, the influence of the individual sub-components was not uniform, and each operated through different mechanisms (Table 12).

Table 12. Regression Results for Motivated Reasoning Sub-components and the DVI

	Sub-indicator	Results	Үзүүлэлт
1	Response to belief-incongruent information (Identity-Oriented Reasoning)	Not statistically significant	Moderate positive effect ($\beta = 0.375$, $p < .001$); explained 14.0% of DVI variance
2	Social Conformity	Statistically significant	Moderate positive effect ($\beta = 0.375$, $p < .001$); explained 14.0% of DVI variance
3	Trust in Sources/Authorities	Statistically significant	Moderate positive effect ($\beta = 0.340$, $p < .001$); explained 11.5% of DVI variance
4	Resistance to Correction	Statistically significant	Moderately strong positive effect ($\beta = 0.376$, $p < .001$); explained 14.2% of DVI variance

First, identity-oriented reasoning did not have a statistically significant relationship with vulnerability to disinformation ($p > .05$). Although individuals may have a tendency to prefer information that aligns with their existing beliefs, this factor alone did not sufficiently explain differences in vulnerability. This suggests that belief-consistent reasoning may become influential primarily when combined with other psychological or social factors.

In contrast, social conformity demonstrated a statistically significant effect on the DVI ($F(1,398) = 65.037$, $p < .001$). Individuals who were more likely to align with the opinions and actions of others were also more likely to accept and share disinformation. This finding is consistent with theoretical explanations suggesting that reliance on social cues—such as perceived majority opinions—can increase susceptibility to misinformation.

Interestingly, simple engagement indicators such as the number of likes or shares did not independently produce statistically significant effects in the experimental setting ($p > .05$). This suggests that social influence operates through broader psychological and social processes rather than through visible engagement metrics alone.

Similarly, trust in sources and authorities was significantly associated with vulnerability to disinformation ($F(1,398) = 51.854$, $p < .001$). However, this influence appears to be double-edged. Trust itself is not inherently protective; when individuals place uncritical trust in unreliable or inaccurate sources, vulnerability to disinformation increases. Consequently, the issue is not simply whether individuals trust information sources, but rather which sources they trust and according to what criteria.

Notably, the experimental manipulation of source visibility (authority cues) did not produce statistically significant differences in trust levels ($p = .853$), suggesting that source trust reflects a broader and more stable information-processing tendency rather than a response to immediate contextual cues.

Finally, resistance to correction emerged as one of the strongest predictors of vulnerability ($F(1,398) = 65.697$, $p < .001$). Individuals who were less willing to revise their beliefs after receiving corrective information were significantly more vulnerable to disinformation. This finding highlights that vulnerability is not only determined by whether people initially believe false information, but also by whether they are willing and able to update their beliefs when presented with credible corrections.

Overall, these results suggest that motivated reasoning is not a single, uniform construct but rather a collection of distinct mechanisms operating in different ways. Specifically:

- Social conformity and resistance to correction emerged as the strongest predictors of vulnerability;
- Trust in sources and authorities exerted a context-dependent and potentially double-edged influence; and
- Identity-oriented reasoning alone was not a sufficient predictor of vulnerability.

These findings imply that interventions aimed at reducing youth vulnerability to disinformation should move beyond broad efforts to change beliefs. Instead, interventions should target the specific mechanisms identified in this study, including reducing socially driven misinformation diffusion, strengthening source-evaluation skills, and promoting psychological strategies that increase openness to corrective information and reduce cognitive bias.

3. Influence of Emotional arousal

Responses to emotionally charged information were measured through two sub-components, as presented in Table 13.

Table 13. Methodology and Average Results of the Emotional Arousal Index

Sub-indicator	Experimental Task (60%)	Self-Assessment (40%)	Mean Index Score
High-Arousal Emotions Index	Participants were exposed to information and comments designed to evoke strong emotions such as fear, anger, anxiety, disgust, and excitement. Their responses to the information were then assessed.	Participants evaluated whether information that evokes fear, anger, or anxiety tends to attract their attention more strongly.	56.24 0100 (SD= 16.58)
Moral-Emotional Trigger Index	Participants were shown information containing content perceived as ethically wrong, unfair, or morally unacceptable, and their reactions were assessed.	Participants evaluated how they typically respond to information perceived as "unfair," "an abuse of power," "unethical," or "wrong."	44.01 0100 (SD = 16.52)
Overall Emotional Arousal Index		50.13 (SD=13.98)	

Among the two sub-components, high-arousal emotions recorded the highest average score (56.24, SD = 16.58), indicating that young people are particularly sensitive to information designed to evoke strong emotional reactions. **In other words, emotions such as fear, frustration, anxiety, and anger appear to increase attention toward information and make immediate reactions more likely.**

The average score for the Moral-Emotional Trigger Index was 44.01 (SD = 16.52), suggesting a moderate level of emotional responsiveness to information framed in terms of morality, fairness, and ethical judgment. This finding indicates that **content aligned with individuals' moral values and ethical perspectives can influence whether information is perceived as credible.**

Overall, the average **Emotional Arousal Index** score was 50.13 (SD = 13.98), suggesting that young people do not evaluate information solely through logic and factual assessment. Emotional reactions also play an important role in shaping how information is interpreted and acted upon. In particular, information that evokes strong emotions or moral concerns appears more likely to influence belief formation and behavioral responses.

To examine whether emotional arousal contributes to vulnerability to disinformation, a regression analysis was conducted using the Emotional Arousal Index as a predictor of the DVI. The results revealed a statistically significant positive relationship ($\beta = 0.369$, $p < .001$). In other words, **the stronger the emotional response elicited by information, the greater the likelihood that an individual will be vulnerable to disinformation.**

The Emotional Arousal Index explained **13.6% of the variance in the DVI**, indicating that emotional factors make a meaningful contribution to vulnerability. Notably, this explanatory power was greater than that of either emotional sub-component when examined independently (high-arousal emotions: 12.3%; moral-emotional triggers: 7.4%). This suggests that the two forms of emotional influence reinforce one another and generate a cumulative effect.

Comparing the two dimensions, high-arousal emotions ($\beta = 0.351$) exerted a stronger influence on vulnerability than moral-emotional triggers ($\beta = 0.272$). Furthermore, the confidence intervals remained entirely positive, indicating that these effects are stable and unlikely to be attributable to random variation.

These findings suggest that emotions are not merely secondary influences. Rather, they play a direct role in shaping how information is processed, encouraging quicker, more intuitive, and less analytical responses.

Table 14. Regression Results for Emotional Arousal Sub-components and the DVI

	Sub-indicator	Result	Interpretation
1	High-Arousal Emotional Responses	Statistically significant	Moderate positive effect ($\beta = 0.351$, $p < .001$); explained 12.3% of DVI variance

2	Moral-Emotional Triggers	Statistically significant	Moderate positive effect ($\beta = 0.272, p < .001$); explained 7.4% of DVI variance
---	--------------------------	---------------------------	--

Experimental results showed that **73.7% of participants experienced moderate or higher levels of negative emotional reactions after reading the information stimuli, while 26.3% reported strong or very strong emotional responses** (Figure 7). This indicates that the content used in the study successfully generated levels of emotional arousal comparable to those commonly observed in real-world information environments.

More importantly, only 25.5% of participants reported that their first reaction was to verify whether the information was true. The majority instead responded with immediate emotional reactions such as fear, anxiety, concern, or disapproval. While this does not imply that participants lack the ability to critically evaluate information, it suggests that emotional responses often dominate initial reactions to information.

Figure 7. % of Participants Reporting Feelings of Concern, Anxiety, or Distress After Reading Information

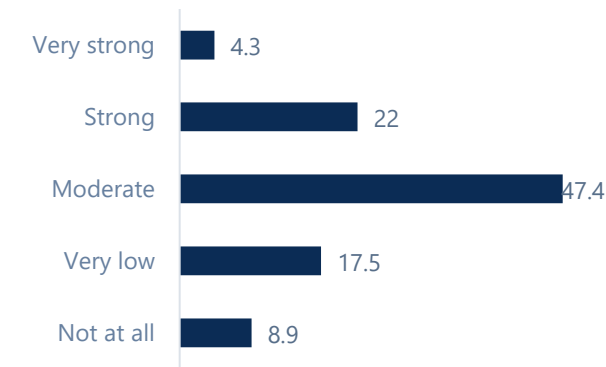


Figure 8. Participants' Immediate Reactions After Reading Information, %



This interpretation is further supported by a statistically significant association between emotional intensity and participants' initial responses ($\chi^2(28) = 246.491, p < .001$; Cramer's $V = 0.278$). Higher levels of emotional arousal were associated with a greater likelihood of immediate emotional reactions, whereas lower levels of emotional arousal were associated with greater tendencies to verify and evaluate information analytically. These findings demonstrate that emotions influence not only how people feel, but also how they make judgments and decisions.

Regression analysis further confirmed that emotional arousal significantly influenced vulnerability to disinformation ($F(1,398) = 55.885, p < .001$), providing empirical support for theoretical arguments that heightened emotional states encourage rapid and less reflective decision-making.

The results relating to moral-emotional triggers were somewhat more nuanced. Between 20% and 24% of participants indicated that they would verify information before accepting it, suggesting the presence of analytical information-processing behaviors. At the same time, however, emotional responses such as anger, fear, disgust, and moral outrage remained highly prevalent, indicating that morally framed information can evoke strong emotional reactions across a wide range of individuals.

Interestingly, when participants were asked why they would share such information, most described their motivations as **prosocial**, such as "warning others" or "helping society." By contrast, explicitly emotional motivations (2.5–4.5%) and motivations related to observing others' reactions (3.5–5.0%) were reported much less frequently. However, these responses may be influenced by **social desirability bias**, as participants may be inclined to present their actions in a more socially responsible manner than their actual behavior would suggest.

Moral-emotional triggers also demonstrated a statistically significant relationship with the DVI ($F(1,398) = 31.805, p < .001$), although their explanatory power was relatively modest. Nevertheless, the overall model remained significant, confirming that moral-emotional factors contribute meaningfully to vulnerability to disinformation. While they may not represent the strongest predictors on their own, they appear to amplify vulnerability when combined with other psychological mechanisms.

Taken together, the findings suggest that emotional influences operate through two distinct pathways. First, high-arousal emotions create a **fast pathway**, encouraging immediate, intuitive, and less reflective responses to information. Second, moral-emotional triggers transform information into perceived moral issues, increasing individuals' motivation to react, engage, and potentially share the content. Together, these mechanisms shape not only how information is understood, but also how it is experienced, interpreted, and disseminated.

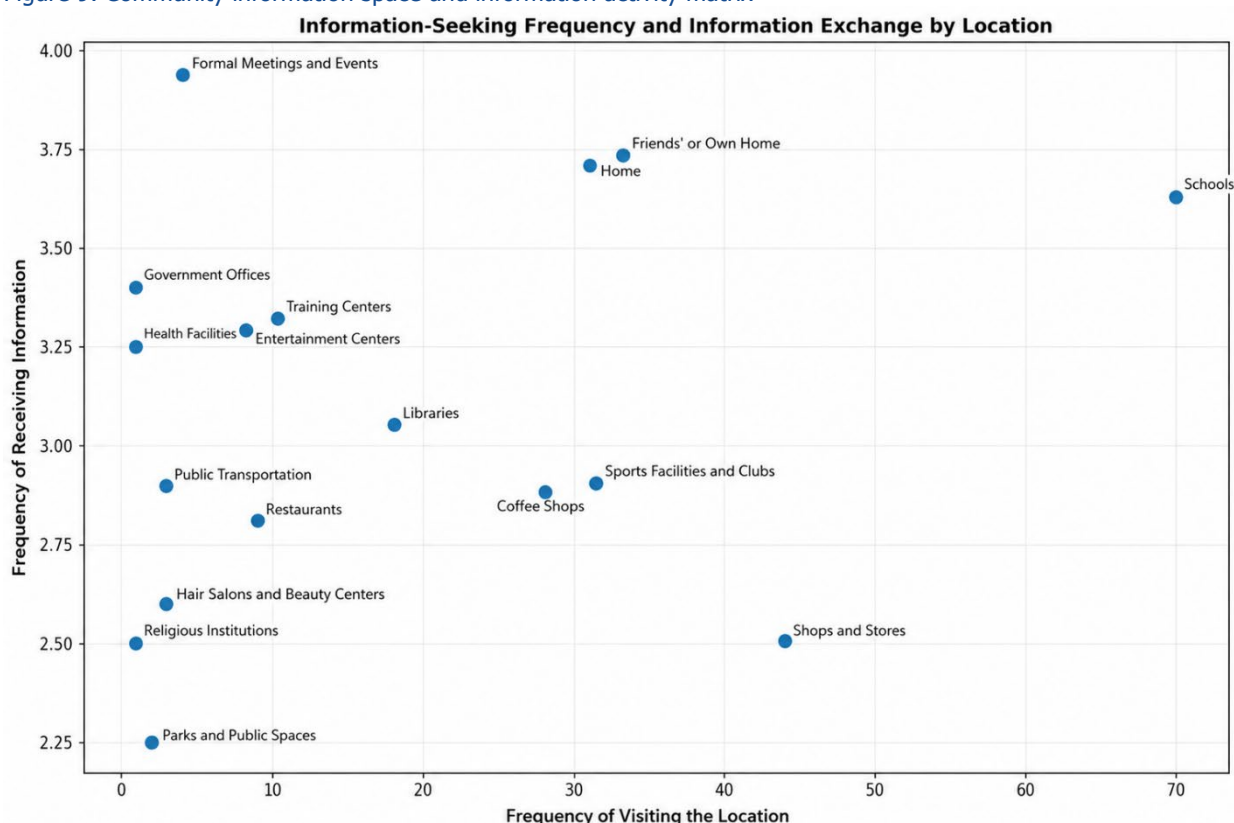
These findings indicate that vulnerability to disinformation should not be understood solely as a problem of inaccurate information processing. It is also the result of emotionally driven, rapid, and often impulsive decision-making. Consequently, interventions should extend beyond strengthening cognitive skills alone. They should also incorporate strategies that promote emotional regulation, help individuals recognize emotionally manipulative content, and encourage "pause before sharing" behaviors that reduce impulsive responses to highly arousing information.

3.3. Community Information Spaces

Individual information behaviors are shaped not only by personal characteristics but also by the information environments in which individuals are embedded and by interactions with other members of those environments. Understanding the characteristics of youth information networks is therefore essential for explaining vulnerability to disinformation, understanding how disinformation spreads, and identifying effective strategies for strengthening resilience.

To explore these dynamics, a community information space analysis was conducted to map the information environments in which young people participate, identify the key actors within those environments, and examine opportunities for strengthening resilience to disinformation based on their distinctive characteristics.

Figure 9. Community information space and information activity matrix



The findings indicate that the most common information spaces for young people are **schools, households, and workplaces**. While locations such as shops, cafes, sports facilities, and clubs are frequently visited, they do not function as active information environments. Conversely, more information-intensive settings, such as formal meetings, discussions, workplaces, and training centers—are characterized by relatively low levels of youth participation.

Figure 10. Individuals with whom Young People Interact Regularly (%)

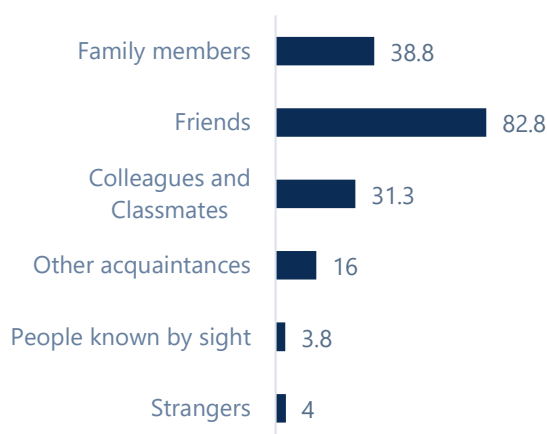
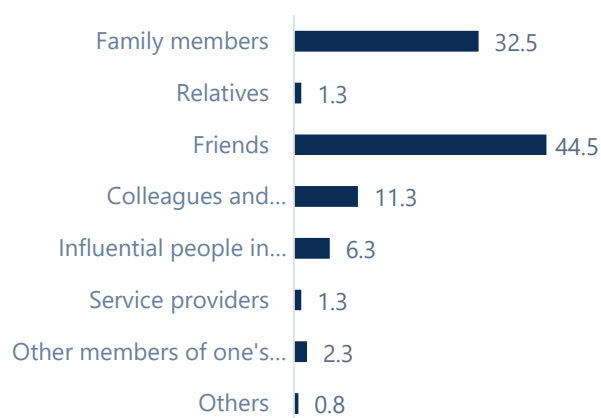


Figure 11. Key Information Sources within Social Networks (%)



Within these information environments, young people primarily interact with **friends, family members, classmates, and colleagues**. Participants generally perceived members of their social networks as sharing similar social positions, values, and beliefs, with an average similarity score of 7.53 out of 10.

Moreover, information is obtained predominantly through close social networks. Approximately **89.5% of respondents reported receiving information from people within their immediate circles**. Friends were identified as the most active information transmitters, followed by family members.

More than half of respondents (55.5%) indicated that people within their social circles regularly share news and information even when it has not been explicitly requested. Active information sharing was particularly common among family members (58.4%) and friends (57.3%). Participants also viewed information received from their social networks relatively positively, assigning it an average importance rating of 6.96 out of 10.

In terms of information behavior, 34.8% of young people actively seek information independently, whereas 31.1% demonstrate limited information-seeking behavior and instead rely primarily on information obtained through their social networks. Those who actively seek information tend to place greater value on information received from members of their social circles.

At the same time, respondents reported obtaining information from multiple sources. Social media was the most common source (81.0%), followed by close social networks (73.8%) and traditional media (45.1%).

Information sharing is also highly active within online environments. Nearly half of respondents (49.0%) reported that people in their online networks regularly share information. As in offline settings, friends (37.3%), family members (18.3%), classmates (13.3%), and colleagues (10.3%) were the most active participants in these online information exchanges. Hobby- and interest-based communities also played a notable role (16.0%).

Young people themselves are relatively active information disseminators online, with an average information-sharing activity score of 6.64. Overall, 38.8% of respondents reported regularly sharing information with others through digital platforms.

Based on patterns of information behavior, respondents were classified into three distinct groups.

1.Passive Receivers (35.2%): Approximately 35.2% of respondents belonged to a group characterized by relatively passive information behavior. These individuals tend to receive information from others rather than actively seek it themselves. They reported high levels of similarity within their social networks (8.59), relied heavily on social media as their primary information source (4.63), and displayed limited proactive information-seeking behavior.

As a result, this group may face a greater risk of becoming trapped within information “bubbles” or echo chambers.

2.Active Information Seekers (32.9%): Approximately 32.9% of respondents were classified as active information seekers. These individuals demonstrated high levels of online engagement (8.15), regularly obtained information through their social networks (3.38), and relied heavily on digital platforms as sources of information (4.30).

3.Isolated Information Consumers (31.9%): The remaining 31.9% of respondents were classified as isolated information consumers. Compared with the other groups, they received less information from their social networks (2.71), exhibited lower levels of online activity (5.56), and relied less on social media for information (3.85).

Community information behavior patterns were generally unrelated to demographic characteristics such as age, location, education, household income, family status, and employment status. The only statistically significant difference was observed by gender ($\chi^2 = 6.49$, $p = .039$, $V = .128$). Young men were more likely to belong to the isolated group (38.3%), whereas young women were more likely to be classified as passive receivers (37.3%).

Although some location-based tendencies were observed, such as a higher proportion of passive receivers in Ulaanbaatar (43.0%) and a higher proportion of isolated consumers in Khuvsgul (41.7%), these differences were not statistically significant.

To examine how these information behavior patterns relate to the study's key measures, a one-way analysis of variance (ANOVA) was conducted.

Table 15. Relationship Between Community Information Behavior Patterns, DVI, and Related Factors

Variable	Passive Receivers (Mean)	Active Information Seekers (Mean)	Isolated Information Consumers (Mean)	F	Effect Size
Belief in False Information	2.87	2.99	2.69	4.82**	Small ($\eta^2=.024$)
Sharing of False Information	2.22	2.32	2.01	3.67*	Small ($\eta^2=.018$)
Recognition of True Information	2.70	2.64	2.77	0.91	No significant effect
DVI	2.60	2.65	2.49	5.00**	Small ($\eta^2=.025$)
MIL	3.94	4.08	3.62	18.99***	Moderate ($\eta^2=.087$)
Cognitive Capacity	48.5	49.0	46.9	2.34	No significant effect
Motivated Reasoning	48.2	47.7	45.9	1.81	No significant effect
Emotional Arousal	51.2	51.0	48.2	1.92	No significant effect

The results indicate that community information behavior patterns were not significantly associated with cognitive or psychological factors. However, they did demonstrate modest relationships with vulnerability to disinformation. Specifically, active information seekers exhibited the highest average level of vulnerability to disinformation, whereas isolated information consumers demonstrated the lowest. These differences appear to be driven primarily by variations in belief in false information and willingness to share false information.

Active information seekers were somewhat more likely to believe false information and slightly more likely to share such information than members of the other groups. One possible explanation is that greater exposure to information may increase opportunities to encounter and engage with misleading content.

Nevertheless, these findings should not be interpreted as evidence that community information behavior patterns directly cause differences in vulnerability. Rather, they suggest that different types of information users exhibit distinct vulnerability profiles.

Overall, the findings highlight the importance of considering community information spaces and social information behaviors when designing interventions to strengthen resilience to disinformation. Efforts to reduce vulnerability should not focus solely on individuals but should also address the broader social and informational environments in which information is exchanged, interpreted, and shared.

4. Key findings and Implications

The study found that the average **Disinformation Vulnerability Index (DVI)** among young people was 2.58, indicating a relatively low to moderate level of vulnerability. However, interpreting this result as evidence of low vulnerability would be misleading. A closer examination reveals that while young people demonstrated relatively strong performance in identifying false information (2.85), their ability to trust true information was considerably weaker (2.70). More than half of respondents (51.5%) expressed disbelief toward all or some true information items. This suggests that the issue may extend beyond the ability to distinguish false information and reflect a broader decline in trust toward information in general.

Future studies should therefore further examine the relationship between the DVI and tendencies toward skepticism, distrust, and uncertainty. While skepticism may help reduce the harmful effects of disinformation, excessive distrust can also lead individuals to question credible information and reliable sources, potentially undermining informed public discourse and creating challenges for democratic processes.

In this regard, the pattern observed among young people may not necessarily indicate improved media and information literacy. Rather, it may reflect a **growing tendency to distrust information more broadly**. Such a trend can itself be considered one of the societal consequences of widespread disinformation. Distinguishing between healthy skepticism and generalized distrust is therefore critically important from a policy perspective. Interventions should focus not only on improving the ability to identify false information, but also on strengthening trust in reliable information sources and rebuilding the foundations of information trust. This shift, from a purely knowledge-based approach toward one that also addresses civic trust, should occupy a central place in future intervention strategies.

Table 16. Correlation Analysis between the DVI and Key Factors

	DVI	Belief in False Information	Sharing of False Information	Belief in True Information	Disbelief	Uncertainty	Cognitive capacity	Motivated reasoning	Emotional arousal
Belief in False Information	.727**								
Sharing of False Information	.865**	.666**							
Belief in True Information	-.170**	-.653**	-.494**						
Disbelief	-.460**	-.845**	-.558**	.800**					
Uncertainty	-.498**	-.912**	-.639**	.906**	.905**				
Cognitive Capacity	.403**	.362**	.302**	-.082	-.237**	-.246**			
Motivated Reasoning	.395**	.513**	.465**	-.452**	-.460**	-.531**	.298**		
Emotional Arousal	.369**	.381**	.422**	-.305**	-.346**	-.378**	.231**	.434**	
Age	-.017	-.098	.001	.072	.068	.094	-.096	-.143**	-.057
Education	-.074	-.192**	-.119*	.223**	.215**	.228**	-.142**	-.224**	-.138**
Household income	-.054	-.003	-.014	-.067	-.031	-.035	-.076	.040	-.008

Note. $p < .01$ (**); $p < .05$ (*).

One of the most important findings of the study is the absence of any statistically significant relationship between young people's self-assessed Media and Information Literacy (MIL) (mean = 3.88/5.00) and their vulnerability to disinformation ($F(1,398) = 0.152$, $p = .697$, $R^2 = .000$). None of the three core dimensions of MIL, accessing information, evaluating information, and creating or sharing information, demonstrated significant associations with vulnerability.

At first glance, this finding appears inconsistent with international literature, which generally regards media and information literacy as a key protective factor against disinformation. However, the result suggests two important issues that warrant further investigation. First, it raises questions about whether respondents are able to accurately assess their own competencies. Second, it highlights the distinction between possessing knowledge and translating that knowledge into habitual behavior. Consequently, media and information literacy interventions should **focus not only on increasing knowledge and awareness but also on cultivating practical habits and behaviors** that support critical engagement with information.

Another important finding is that demographic characteristics, including age, gender, education, income, and location—collectively explained only 4.8% of the variation in vulnerability ($F(9,390) = 2.18$, $p = .023$, $R^2 = .048$). By contrast, the three psychological dimensions examined in the study, **cognitive factors, motivated reasoning, and emotional arousal**, collectively explained 27.9% of the variation in vulnerability.

This finding suggests that vulnerability is determined less by *who people are* than by *how they process information*. Although education demonstrated a relatively stable protective effect ($\beta = -0.179$, $p = .004$), indicating that education contributes to the development of more analytical approaches to information processing, demographic characteristics themselves were not strong predictors of vulnerability.

These results imply that training, awareness-raising, and capacity-building initiatives may represent some of the most effective strategies for reducing vulnerability among young people. However, the content and design of such interventions should move beyond traditional information literacy approaches and instead address the underlying mechanisms through which information is processed, **namely cognitive tendencies, belief-based judgments, emotional responses, and social information behaviors**.

At the same time, the findings suggest that **identifying “vulnerable groups” based solely on demographic characteristics may be ineffective**. Rather than targeting specific demographic categories, interventions may achieve broader and more sustainable impacts by focusing on common cognitive and psychological processes that influence how individuals interpret and respond to information.

The study further demonstrates that **vulnerability to disinformation is shaped by three distinct but interconnected mechanisms**: cognitive factors ($\beta = 0.290$), motivated reasoning ($\beta = 0.218$), and emotional arousal ($\beta = 0.207$). Each factor was statistically significant, and together they constitute the core structure of vulnerability to disinformation.

Importantly, these three factors were also significantly correlated with one another. This suggests that vulnerability in one domain may reinforce vulnerabilities in others, creating cumulative effects on susceptibility to disinformation. Consequently, strengthening cognitive capacity alone may not be sufficient to reduce vulnerability. The positive effects of stronger analytical thinking may be offset when individuals remain highly influenced by emotionally charged content or belief-driven interpretations of information.

The three psychological factors were also significantly associated with key components of the DVI. Lower levels of cognitive, motivational, and emotional vulnerability were associated with lower levels of belief in false information and reduced willingness to share false information. However, the relationships between these factors and trust in true information were comparatively weaker.

This finding has important implications for intervention design. Efforts aimed solely at reducing belief in false information may not necessarily increase trust in reliable information sources. Consequently,

interventions should combine strategies for reducing susceptibility to disinformation with approaches that strengthen the ability to identify, evaluate, and trust credible information sources. Such a **combined approach is likely to produce more substantial and sustainable reductions in vulnerability.**

The analysis also revealed important differences by age and location. The influence of cognitive, motivational, and emotional factors varied across demographic groups, suggesting that a single intervention model is unlikely to be equally effective for all young people. Effective interventions should therefore target the dominant mechanisms of vulnerability within each group. For example, interventions in urban settings may benefit from a stronger focus on emotional regulation and recognition of emotionally manipulative content, whereas interventions in rural areas may be more effective when focused on analytical reasoning skills, source evaluation, and openness to corrective information.

Beyond individual-level psychological factors, the study highlights the importance of the broader information environment. Approximately 89.5% of young people reported receiving information from members of their immediate social networks, whom they generally perceived as sharing similar beliefs and viewpoints (7.53 out of 10). In addition, 55.5% reported that people within their social networks regularly share information without being asked.

Although community information spaces, information transmitters, and information behavior patterns demonstrated only limited direct effects on vulnerability, the findings suggest that information vulnerability should be understood not only as an individual-level phenomenon but also as an ecosystem-level challenge. Even when individuals possess strong cognitive skills and healthy information habits, vulnerabilities within their social networks may continue to expose them to misleading information through indirect pathways.

Therefore, responses to disinformation should address not only individual knowledge and competencies but also the social channels through which information circulates. Future efforts should pay greater attention to community information environments, network structures, and patterns of information exchange. More detailed research on community information spaces would help inform the design of interventions capable of strengthening resilience at both the individual and collective levels.

Recommendation

The findings of this study are specific to youth vulnerability to disinformation, as measured through the DVI, and the factors associated with it. Accordingly, the recommendations presented below are intended primarily to inform interventions, policies, and programs targeting young people and should not be generalized directly to other population groups.

Based on the findings of the study, the following recommendations are proposed.

1. Strengthen Research and Evidence Generation:

- **Refine and Expand the Measurement of Disinformation Vulnerability:** The methodology used to measure the Disinformation Vulnerability Index (DVI) should be further refined and expanded to incorporate broader dimensions of information skepticism, distrust, and uncertainty. Future studies should consider repeated or longitudinal measurements to track changes over time and better understand the long-term effects of disinformation exposure. Such evidence would provide a stronger foundation for policy responses and intervention design.
- **Conduct In-Depth Research on Community Information Spaces:** The study demonstrates that vulnerability to disinformation is influenced not only by individual characteristics but also by the structure and dynamics of social information environments. More detailed research is therefore needed to examine how group structures, social networks, and collective information behaviors contribute to either vulnerability or resilience. Understanding these mechanisms would help identify the broader societal factors that reinforce or mitigate individual vulnerability.
- **Evaluate the Effectiveness of Media and Information Literacy Interventions:** Dedicated research should be conducted to assess the effectiveness of Media and Information Literacy (MIL) initiatives and identify the pathways through which they influence vulnerability to disinformation. The findings suggest that educational attainment is significantly associated with several components of the DVI and related psychological factors, indicating that knowledge-building and capacity-development efforts may be effective. However, further evidence is needed to understand how improvements in knowledge and skills translate into behavioral change and reduced vulnerability. Strengthening information competencies among citizens, particularly young people, remains one of the most sustainable long-term approaches to addressing disinformation. Future evaluations should therefore focus not only on knowledge acquisition but also on behavioral outcomes and the mechanisms through which MIL interventions influence vulnerability.

2. Strengthen System-Level Responses to Disinformation:

- **Improve access to credible and responsible information sources:** The study found relatively high levels of uncritical trust in information sources among young people (mean score = 50.05), and this factor was directly associated with vulnerability to disinformation. Increasing access to reliable and responsible information sources may therefore contribute to reducing vulnerability. Efforts should focus on strengthening responsible journalism, developing mechanisms for identifying and signaling trustworthy sources, and increasing public awareness of credible information providers.
- **Address coordinated manipulation, fake accounts, and troll networks:** Young people demonstrated a relatively strong tendency to perceive repeated information as true (49.9) and to conform to group opinions (54.0), both of which significantly influence vulnerability to disinformation. Previous mapping studies identified fake accounts and coordinated troll networks as key mechanisms used to amplify disinformation through repeated exposure and artificial engagement.

These activities create the impression of widespread public support while simultaneously exploiting social media algorithms to increase visibility.

Addressing coordinated inauthentic behavior, improving transparency, and strengthening accountability mechanisms for organized disinformation campaigns could therefore help reduce the influence of belief-based vulnerability mechanisms. This will require greater collaboration with social media platforms and stronger measures targeting coordinated manipulation networks.

- **Promote Platform-Level Interventions:** Social media plays a central role in youth information environments, with 81% of respondents reporting that it is one of their primary information sources. International evidence demonstrates that platform design can directly influence information-sharing behavior. For example, prompts encouraging users to reconsider whether they wish to share content have been shown to reduce the sharing of misinformation.

Platform-based interventions may therefore include: prompts encouraging users to verify information before sharing; incentives for citing sources when posting information; stronger accountability mechanisms for influencers and large public pages; and community standards that promote responsible information sharing. Such interventions should be explored collaboratively with platform providers.

- **Expand Fact-Checking and Pre-bunking Initiatives:** Resistance to correction was relatively low among young people (36.73), indicating a willingness to revise beliefs when presented with credible evidence.

This suggests that expanding fact-checking initiatives, increasing the visibility of fact-checking content, and strengthening pre-bunking approaches that address false narratives before they spread could have meaningful impacts on reducing vulnerability.

Supporting fact-checking organizations, improving information transparency, expanding cooperation among stakeholders, and integrating technological innovations into fact-checking processes should therefore remain important priorities.

3. Strengthen Youth Resilience to Disinformation.

- **Deliver targeted and accessible media and information literacy programs:** The findings demonstrate the need for accessible and youth-centered media and information literacy initiatives that address not only knowledge and skills but also the cognitive, emotional, and belief-based mechanisms underlying vulnerability to disinformation.
- **Promote “Pause Before Sharing” Behaviors:** Young people exhibited relatively high levels of susceptibility to emotionally arousing content, particularly content that evokes fear, anxiety, and other strong emotional reactions (56.24). Previous studies have shown that emotionally manipulative content is a common feature of disinformation.

Encouraging young people to pause briefly before reacting to, commenting on, or sharing emotionally charged content may therefore be an effective intervention strategy. Behavioral experiments have shown that simple prompts encouraging reflection can reduce misinformation sharing by 20–30%.

- **Use trusted voices and social norms to encourage positive information behaviors:** Young people demonstrated relatively high levels of trust in information sources (50.05) and social conformity (54.0). These characteristics can be leveraged positively by engaging trusted messengers, including influencers and other respected figures, to promote desirable information habits.

Campaigns should aim to normalize behaviors such as: pausing before sharing; checking sources; verifying information before accepting it as true; and seeking corroborating evidence.

Embedding such practices within social norms may be more effective than relying solely on formal educational approaches.

- **Support youth with limited information engagement:** Approximately 31.9% of respondents were classified as isolated information consumers. Although this group exhibited relatively low vulnerability to disinformation, they also demonstrated lower levels of media and information literacy and weaker information engagement overall.

Preventive interventions targeting this group should focus on strengthening information skills and fostering healthy information behaviors before vulnerabilities emerge. Schools, families, and peer-based networks may provide effective entry points for reaching these young people.

4. Develop Community-Level Responses

- The findings indicate that both offline and online information exchange among young people is strongly shaped by close social networks. As a result, efforts to reduce the spread of disinformation and promote positive information behaviors should leverage the institutions and environments that function as key information hubs.

Schools, in particular, represent one of the most important information environments for young people, both offline and online. Student groups, clubs, student councils, and parent associations provide opportunities to strengthen resilience within broader information networks.

Training influential members of these networks and reducing their vulnerability to disinformation may help generate positive spillover effects throughout community information spaces. Future research should also examine online community information environments in greater detail, as digital spaces represent the largest and most influential information ecosystems for young people.

To conclude, the findings demonstrate that youth vulnerability to disinformation is shaped by multiple levels of influence, including demographic characteristics, individual information-processing mechanisms, and community information environments.

Consequently, effective responses must adopt a comprehensive and multi-level approach that addresses the specific mechanisms through which vulnerability develops. Future interventions should be tailored to the characteristics of different target groups and designed around the dominant drivers of vulnerability within each context. Such an approach is likely to produce more effective and sustainable outcomes in strengthening youth resilience to disinformation.

References

- Bastick, Z. (2021). Would you notice if fake news changed your behavior? An experiment on the unconscious effects of disinformation. *Computers in Human Behavior, Volume 116*.
<https://doi.org/https://doi.org/10.1016/j.chb.2020.106633>.
- DISA. (2025, January 4). *The Pervasive Threat of Misinformation and Disinformation: Understanding the Psychology Behind the Spread of Falsehoods* [Disinformation Social Media Alliance].
<https://disa.org/the-psychology-of-misinformation-and-disinformation/>
- IRI. (2024). *Public Opinion Survey*.
- IRIM. (2025). *Mapping of Disinformation in Mongolia*.
- Lewandowski, P. (2024). *Psychological mechanisms of disinformation and their impact on social polarization*. 85–104. <https://doi.org/10.14746/ssp.2024.2.5>
- OptimalNMax. (2024). *Цахим орчин дахь хуурамч мэдээллийн тархалт болон нөлөөлөгч хүчин зүйлсийн судалгаа*.
- Pennycook, G., & G Rand, D. (2021). The Psychology of Fake News. *Trends in Cognitive Sciences*, 25(5), 388–402.
- Wolters, H., Kasey Stricklin, Neil Carey, & Megan K. McBride. (2021). *The Psychology of (Dis)information: A Primer on Key Psychological Mechanisms*. CNA.
<https://apps.dtic.mil/sti/trecms/pdf/AD1151655.pdf>