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Intentions Toward the Information Consumption Environment: An International Comparison with "Informational Health" as a Key Concept¹

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1. Background

The current information environment is significantly shaped by the negative effects of the attention economy, including phenomena such as filter bubbles and echo chambers. These dynamics hinder individuals' ability to critically evaluate information encountered online and often result in misinformed decision-making.

Although digital platform operators—who govern online information flows—have taken voluntary steps to address these challenges, no substantial or systematic solutions have yet been achieved.

The 2021 attack on the United States Capitol, where social networking services played a pivotal role, serves as a stark reminder of these risks. Even in less extreme situations, individuals are frequently misled by fake news or exposed to biased information in their everyday information consumption.

2. Prior research

A substantial body of research has examined information consumption on digital platforms using a variety of methodological approaches. In terms of content, Flaxman, Goel, and Rao (2016) found that articles accessed via social media and search engines tend to be more ideologically polarized than those accessed directly on news websites. Similarly, Vosoughi, Roy, and Aral (2018) analyzed the spread of true and false information on Twitter and demonstrated that false

news spreads more broadly than truthful content. Brady et al. (2017) further showed that the use of moral-emotional language in messages increases their diffusion, with each additional such word boosting spread by approximately 20%.

Research focusing on user behavior has also yielded important insights. Tokita, Guess, and Tarnita (2021) demonstrated that on social networking platforms, gradual and unintentional unfollowing behavior fosters homogeneous online environments, which limit exposure to diverse viewpoints and contribute to out-group hostility. Vicario et al. (2016) highlighted individuals' tendencies to select information consistent with their own beliefs while dismissing opposing perspectives. Moreover, Cinelli et al. (2021) found that user-controlled feed customization on digital platforms can reduce polarization among users.

3. Remaining Issues and Research Questions

Despite this growing body of literature on information dissemination and user behavior on social media, relatively few studies have explored individuals' intrinsic attitudes toward these platforms—specifically, their perceptions of platform environments and confidence in their own information consumption. Furthermore, the connection between such personal attitudes and people's expectations or demands for institutional governance of platforms remains largely underexplored.

To fill this gap, the present study addresses two core research questions:

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- How do individuals evaluate their own information consumption behavior?
- What kinds of institutional interventions do individuals desire from platform operators?

4. Concept of “Informational Health”

To investigate these questions, this study adopts the concept of informational health. As discussed by Toriumi and Yamamoto (2022), informational health responds to issues arising from the attention economy (Wu, 2017) and the proliferation of fake news (Bradshaw et al., 2021). Toriumi and Yamamoto (2022) define informational health as follows:

“Today, when the flow of information in the space for public discourse has undergone a great transformation, it is indispensable that we achieve a state of affairs in which we have acquired a certain degree of immunity (critical faculties) to fake news—that is to say, informational health—by coming into contact with a well-balanced variety of information.”

5. Survey

This study draws on data from an international survey conducted by the authors in March 2024. The survey covered five countries (the United Kingdom, France, Germany, the United States, and Japan) and collected a total of 2,400 responses.

A summary of the survey is given below.

Survey Date

Japan: March 21, 2024

U.S., U.K., France, Germany: March 18, 2024

Number of samples (total: 2,400)

Japan: 757

U.S., U.K., Germany: 411

France: 410

Preliminary findings reveal notable cross-national variations. For example, acceptance of the concept of informational health is relatively high in the UK but lower in Japan. Similarly, subjective confidence in one’s own information consumption is higher in the UK and US compared to other countries.³

6. Analytical Framework

This study analyzes the extent to which individuals accept the concept of informational health and investigates international differences in its acceptability. The dependent variable is the degree of empathy with the concept of informational health, while the independent variables include attributes of the information environment and individual characteristics believed to influence that empathy. Details of the variables are summarized below.

Since the dependent variable is binary, the analysis employs a binomial logit model. Details of the variables are shown in Table 1.

7. Analysis Results

The estimation results are presented in Table 2.

Several key findings emerge:

First, basic demographic variables such as gender and age do not significantly influence empathy toward informational health, although there may be a tendency for younger individuals to show slightly more empathy.

Second, individuals’ perceptions of their information environment and their own information consumption have a significant impact. Those who feel surrounded by a large volume of information are more likely to resonate with the idea of informational health. Interestingly, those who trust the information they consume are also more empathetic toward the concept. This is

³ This is detailed in the author's report at the ITS 24th

counterintuitive, as one might expect that concern about informational health would stem from distrust. However, the results suggest the opposite.

Additionally, individuals with higher levels of information literacy—those who understand concepts such as echo chambers and filter bubbles—are more likely to empathize with informational health. Similarly, those who express confidence in the healthiness of their own information consumption tend to be more

supportive of the concept. Again, this may seem paradoxical, as one might assume that concern arises from lack of confidence.

Finally, with respect to international differences, acceptance of informational health is higher in the US and UK, whereas it is relatively lower in Japan, France, and Germany.

Table 1. Description of Variables

Dependent variable	
Degree of empathy with the concept of informational health	A binary variable based on a five-level scale; responses of “I empathize” or “I empathize somewhat” are coded as 1, and all others as 0.
Independent variables	
Female dummy	1 if female, 0 otherwise
Age	Continuous variable (actual age)
Attitude toward fake news	Five-point ordinal variable from “want it eradicated” to “want it to stay the same”
Perceived amount of information	Five-point ordinal variable from “too much” to “too little”
Trust in information sources	Five-point ordinal variable from “very trustworthy” to “not trustworthy”
Awareness of echo chambers	Dummy variable (1 if aware, 0 otherwise)
Awareness of filter bubbles	Dummy variable (1 if aware, 0 otherwise)
Subjective informational health	Self-assessed score (0–100)
Country dummies	Dummy variables for Japan, United Kingdom, France, and Germany (reference category: U.S.)

Table2. Estimation results

	Estimate	Std. Error	p value
(Intercept)	-3.08	0.38	0.00 ***
Female dummy	0.04	0.09	0.65
Age	-0.01	0.00	0.05 .
Attitude toward fake news	0.15	0.04	0.00 ***
Perceived amount of information	0.25	0.06	0.00 ***
Trust in information sources	0.47	0.05	0.00 ***
Awareness of echo chambers	0.74	0.15	0.00 ***
Awareness of filter bubbles	0.85	0.15	0.00 ***
Subjective informational health	0.01	0.00	0.00 ***
Japan	-0.66	0.14	0.00 ***
United Kingdom	0.06	0.16	0.68
France	-0.41	0.15	0.01 **
Germany	-0.46	0.16	0.00 **

8. Summary

To examine individual information consumption behavior and expectations for platform governance, this study conducted an international survey and analyzed the acceptability of the concept of informational health, which has gained increasing attention in Japan. The findings can be summarized as follows:

Individuals who trust the information around them yet perceive information overload are more likely to resonate with the idea of informational health. These individuals may recognize challenges in their information environment and seek solutions.

People with high information literacy are more receptive to informational health. Such individuals are likely more attuned to issues in digital information consumption and seek better practices. Conversely, those with lower information literacy may lack awareness of these issues or fail to recognize them as problems.

The degree of empathy with informational health varies across countries. These differences may reflect the historical and cultural backgrounds of each society and the current state of media and platform environments.

9. Remaining Issues

This study provides a preliminary examination of the acceptability of informational health, a concept that is increasingly discussed in Japan but remains relatively unknown globally. Further research is needed to assess the concept's validity and its implications for institutional design from a more comprehensive and multi-dimensional perspective.

Note

This study builds on the presentation delivered at the ITS 24th Biennial Conference 2024. Feedback from the conference informed further refinements, including the development of the

model analysis.

References

- Bradshaw, S., Bailey, H. and Howard, P.N. "Industrialized Disinformation 2020 Global Inventory of Organized Social Media Manipulation," University of Oxford, 2021.
- Brady, W. J., Wills, J. A., Jost, J. T., Tucker, J. A., and Van Bavel, J. J. "Emotion shapes the diffusion of moralized content in social networks", *Proc Natl Acad Sci U S A*, 114(28), pp7313-7318, 2017.
- Cinelli, M., Morales, G. D. F., Galeazzi, A., and Starnini, M. "The echo chamber effect on social media", *Proc Natl Acad Sci U S A*, 118(9), e2023301118, 2021.
- Flaxman, S., Goel, S., and Rao, J. M. "Filter bubbles, Echo Chambers, and Online News Consumption", *Public Opinion Quarterly*, 80(S1), pp298–320, 2016.
- Koguchi, T. and Jitsuzumi, T. "An international comparative analysis of the acceptability of the concept of "informational health", *Proceedings of the ITS 24th Biennial Conference 2024*, 2024.
- Koguchi, T. and Jitsuzumi, T. "Analysis of the acceptability of the "information health" concept: Consideration of the possibility of beneficiary payment", *Proceedings of the 2023 ITS European Conference*, 2023a.
- Koguchi, T. and Jitsuzumi, T. "Analysis of the preferences for the "information health" concept: Consideration of impact on willingness to pay", *Proceedings of the ITS Asia-Pacific Conference 2023*, 2023b.
- Tokita, C. K., Guess, A. M., and Tarnita, C. E. "Polarized information ecosystems can reorganize social networks via information

cascades”, Proc Natl Acad Sci U S A,, 118(50): e2102147118, 2021.

Toriumi, F. and Yamamoto, T. “Joint Statement: “Toward a Wholesome Platform for Speech: Digital Diet Declaration” (ver. 1.0)”, KGRI Working Papers No.2, Keio University Global Research Institute, 2022.

Vicario, M. D., Vivaldo, G., Bessi, A., Zollo, F., Scala, A., Caldarelli, G., and Quattrociocchi, W. “Echo Chambers: Emotional Contagion and Group Polarization on Facebook”, Sci Rep, 1(6):37825, 2016.

Vosoughi, S., Deb, R., and Sinan, A. “The spread of true and false news online.”, Science, 359(6380), pp1146-1151, 2018.

Wu, T. “The attention merchants: The epic scramble to get inside our heads.” Vintage, 2017.