

Network spillover effects on political expression thresholds of overseas Chinese students under platformised transnational governance

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Abstract. Under the world trend of platformised digital governance, the political expression of overseas Chinese students they political expression of overseas Chinese students is significantly influenced by cross-platform information spillovers and algorithmic exposure. Previous studies have concentrated mainly on structural conditions of political participation, without due attention to the dynamic interaction between network spillover effects and expression thresholds of individuals. Based on 512 survey questionnaires and Structural Equation Modeling (SEM), the current study discovers that network spillover has an indirect impact on political expression thresholds through anxiety of identity and risk perception ($\beta = 0.43$, $p < 0.01$). Exploratory Factor Analysis (EFA) revealed four latent factors, algorithmic exposure, anxiety of identity, confidence in public opinion, and risk perception, explaining 68.2% of the total variance. We find the evidence that transnational digital governance not only reconstructs information dissemination but also reshapes expressive decision-making in the psychological domain. This study reveals the interdependence of technological power and identity politics, providing new perspectives on the political psychology of transnational youth and practical values for regulating the internet and intercultural education.

Keywords: network spillover effects, political expression threshold, overseas Chinese students, platformised governance

1. Introduction

Political communication becomes increasingly algorithm-mediated, and public discourse increasingly influenced by geopolitical processes, policy transitions, and digital monopolies' interests by virtue of political decrees. Platformised transnational governance accounts for how transnational information and influence flows make up a mode of governance acting beyond national borders. This dynamic comes to fruition through algorithmic filtering and content visibility, where governments partner with digital companies to regulate, curate, and moderate shared contents, allowing infrastructural power to exert action upon individuals by rendering decisions pertaining to what and whom shall be observed [1]. Within China, the authoritarian regime combines the policy of state censorship and data localization policies towards the aggregation of digital sovereignty. It uses social networks to disseminate the states' discourse of nationalism, social stability, and legitimacy of the governing Party [2]. Politically structured information expands beyond national borders through the Chinese digital diaspora. Chinese international students, therefore, frequently inhabit the coexisting dual information ecosystem by balancing national narratives and host-country ideologies. Although little previous research has specifically considered this segment, Chinese International Students (CISs) are one of the most extensive and most connected diasporic communities worldwide. These CISs' real experiences give concrete empirical understanding of how network spillover and cross-platform diffusion of ideas and sentiment regulate their political expression readiness psychologically [3]. Enhanced empirical understanding of the government's long-distance influence makes the study distinguishable, highlighting an unstirred but socially impactful crowd. Research results have practical applications towards the education and social policy, particularly towards the breakdown of political stereotypes and the promotion of intercultural understanding.

2. Literature review

2.1. Platformised governance and political communication

Platformised governance is founded upon the intersection of platform capitalism, theorising the platform as an economic infrastructure of governance. In political communication, this evolution represents the shift from the broadcast of institutions to algorithmically curating the viewable regime. Specifically, social media platforms like WeChat, TikTok, and Facebook exert growing authority in delineating the limits of political discourse through automatic censure and individually targeting recommender systems [4]. In addition to distribution, these platforms also censor, amplify, or suppress voices to shape engagement metrics and the wider geopolitical terrain. This has profound effects upon diasporic political discourses [5]. Their calculated expressive risks, through their engagement with discursive boundaries, are evaluated by their data-based adversarial exclusion systems which are potentially racially and algorithmically discriminatory. Thus, platformised governance recasts the boundaries of freedom upon the internet.

2.2. Network spillover and cross-cultural connectivity

Network spillover is the mechanism by which information, emotion, and ideology spread throughout inter-connected social networks and digital platforms. For Chinese students overseas, even though they selectively focus on and interact with content corresponding to the Chinese state narrative, they are also exposed to varied information perspectives from international information sources [6]. Balancing and interacting with contradictory narratives, CIS are forced to self-reflectively navigate the cross-platform diffusion of political concepts and affective signals [7]. This induces cognitive tension, where they internalize contradictory opinions and selectively redefine political subjects as they seem to be insignificant, known, or socially viable subjects [8]. Furthermore, algorithms highlight certain moods, developing an asymmetric exposure style. Network spillover ultimately doesn't only inter-mediate political comprehension but also molds psychological preparation for political articulation.

2.3. Political expression threshold and psychological mediation

Political expression threshold means the psychological break point between silence and public expression. It happens where the inner attitude transforms into an outward communicative action, but the threshold is governed by the opportunities and risks perceived. Political expression threshold, social sanctions, identity congruity, and algorithmic visibility all have a decisive role to play in the process [9]. CIS react to the online sites by embracing the prevailing norms and limiting their utterance where they have the risks of reputational loss, hostility, or observation to consider [10]. These dilemmas are amplified where CIS act because they are placed in the "dual structure", faced by where they have varied political expression standards and where they are involved in the transnational negotiation of their identity. They have to police their digital life under the vigil of varied digital gatekeepers and social demands, leading to increased cognitive and affective challenges [11]. Political expression threshold, then, is the concept where the implicit affective nature of where the digital transnational governance, the varied social disciplines, and the complexity of CIS's formation of the hybrid identity intersect.

3. Experimental methods

3.1. Research design and sample

An online survey and social media observation are utilized under the paradigm of the mixed-methods quantitative style. This methodology warrants the sophistication of the methodology by offering empirical support of the external action, like what people post, remove, or refrain from putting on the internet, and internal thoughts, providing numerical observations of the underlying psychological processes and increasing the triangulation and the validity. Data have been gathered through 5-point Likert scales for 512 Chinese students. Network participation, public opinion exposure, anxiety of identity, risk perception, and expressive intention are the significant constructs. Demographic aspects like the age, sex, time of study overseas, and level of political activism are the control variables. Data are coded according to the characteristics of the individuals to challenge bias.

3.2. Exploratory factor analysis

The EFA was implemented to determine latent dimensions of political expression. The factor analysis intends to aggregate numerous observed variables into meaningful structures reflecting underlying psychological and behavioral patterns underlying CIS's political expression thresholds. For the KMO test, the result was 0.89, supporting sampling adequacy. In the meantime, Bartlett's test of sphericity was significant, $p < 0.001$, suggesting the data were appropriate for factor analysis and there were

adequate correlations between the variables. From the factor analysis, the results presented four factors: algorithmic exposure, anxiety of identity, confidence in public opinion, and perceived risk. All the loaded values were above 0.6, suggesting strong survey item relationships and the underlying factors. These four factors accounted for 68.2% of the total variance of respondents' replies, suggesting a well-defined factor structure. Thus, these constructions were the bases of the SEM modeling.

3.3. Structural equation modeling

To test the mechanism by which network spillover shapes political expression thresholds, this paper built the SEM according to the latent variables revealed by the exploratory factor analysis, Algorithmic Exposure (AE), Identity Anxiety (IA), Public Opinion Trust (TP), and Perceived Risk (PR). Hypothesis of the model: Network Spillover (NS) makes Political Expression threshold (PE) indirectly affected by network spillover through sequential mediation of identity anxiety and perceived risk, as illustrated in Equation (1):

$$IA = \alpha_1 NS + \epsilon_1, PR = \alpha_2 IA + \alpha_3 NS + \epsilon_2, PE = \beta_1 PR + \beta_2 IA + \beta_3 NS + \epsilon_3 \quad (1)$$

Where α_i and β_i represent the path coefficients and ϵ_i denotes the random error terms.

Parameters of the model were estimated by the Maximum Likelihood Estimation (MLE), and the adequacy of the whole model was estimated by the standard indices of fit, CFI, TLI, and RMSEA. All the variables were standardized before estimation to minimize the bias of measurement. The findings demonstrated satisfactory fit of the model (CFI = 0.951, TLI = 0.939, RMSEA = 0.046), signifying strong statistical reliability of the supposed structure. Through path analysis, it was found that the direct impact of network spillover on political expression thresholds was insignificant ($\beta = 0.08, p > 0.05$), but the indirect impact through identity anxiety and risk perceived was significant ($\beta = 0.43, p < 0.01$). Bootstrap resampling replication ($n = 5,000$) also verified the robustness of the mediation impact, since the 95% confidence interval [0.27, 0.61] did not include zero.

The final functional form of the model as shown in Equation (2):

$$PE = f(NS, IA, PR) = \beta_1(\alpha_2 IA + \alpha_3 NS) + \beta_2 IA + \beta_3 NS + \epsilon \quad (2)$$

This result demonstrates that network spillover influences political expression thresholds through cumulative psychological transmission pathways, specifically via identity and risk mediation.

4. Results

4.1. EFA findings

An initial EFA was performed on 512 usable survey questionnaires to determine the latent psychological dimensions of overseas Chinese students' political expression thresholds. KMO was 0.89 (> 0.8), and the results of Bartlett's test of sphericity were significant ($\chi^2 = 1986.42, p < 0.001$), verifying the data for factor analysis. Four factors with eigenvalues above one were extracted by principal component extraction and variance maximization through varimax rotation, and they explained 68.2% of the total variance cumulatively. Specifically, AE represents perceived cross-platform information flow and recommendation intensity differences, and the factor loadings were 0.67 and 0.82, respectively; IA comprises disagreement of cultural affiliation and social judgment pressure, and the factor loadings were 0.63 and 0.79, respectively; TP represents trust toward the different information source discrepancy, and the factor loadings were 0.60 and 0.77, respectively; and PR comprises subjective politico-behavioral concern, and the factor loadings were 0.64 and 0.81, respectively. Reliability analysis showed all factors' Cronbach's α values were higher than 0.80, which showed strong internal consistency. Table 1 summarizes the factor loadings and variance explained of each latent dimension.

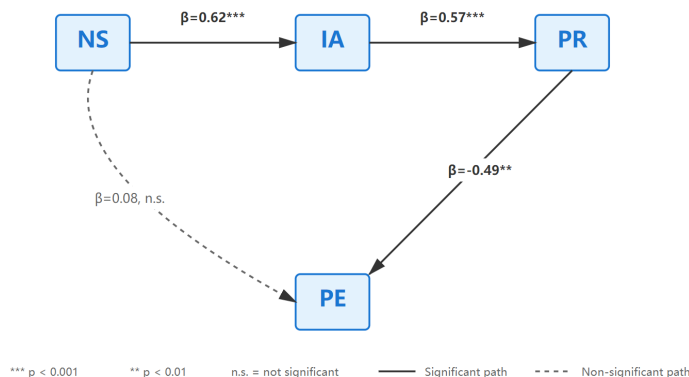
Table 1. Factor loadings and explained variance of latent constructs

Latent Factor	Key Observed Variables	Factor Loading Range	Cronbach's α	Variance Explained (%)
Algorithmic Exposure (AE)	Platform recommendation intensity, cross-platform opinion synchronization	0.67–0.82	0.86	18.4
Identity Anxiety (IA)	Cultural identity conflict, peer pressure perception	0.63–0.79	0.83	17.1
Trust in Public Opinion (TP)	Trust in domestic/foreign media, perception of information authenticity	0.60–0.77	0.84	16.3
Perceived Risk (PR)	Anticipated expression consequences, concern over identity exposure	0.64–0.81	0.88	16.4
Cumulative Variance Explained	—	—	—	68.2

4.2. SEM findings

According to the latent factors emerged by the results of the EFA, a SEM was developed and tested the impact of Network Spillover (NS) on Political Expression thresholds (PE) through the mediation of Identity Anxiety (IA) and Perceived Risk (PR). With AMOS 28.0 and the method of Maximum Likelihood Estimation (MLE), the model showed satisfactory fit indices ($\chi^2/df = 2.64$, CFI = 0.951, TLI = 0.939, RMSEA = 0.046), the assumed structure. From the path coefficient, significant positive impact of NS on IA ($\beta = 0.62$, $p < 0.001$), significant positive impact of IA on PR ($\beta = 0.57$, $p < 0.001$), and significant negative impact of PR on PE were observed ($\beta = -0.49$, $p < 0.01$). NS significantly indirectly affected PE through the mediation of PR and IA ($\beta = 0.43$, $p < 0.01$), but the direct impact of NS on PE was insignificant ($\beta = 0.08$, $p > 0.05$).

Figure 1 depicts the SEM path model and standardized coefficients, presenting the vivid picture of how network spillover affects political expression thresholds by psychological mediation. Bootstrap resampling ($n = 5,000$) verified the mediation effect's robustness, and the 95% confidence interval of [0.27, 0.61] did not contain zero. Generally, these findings reveal that within platformised transnational governance, network spillover not only determines information exposure structures but also recreates individuals' expressive intention through intricate psychological mechanisms.

**Figure 1.** Path diagram of the structural equation model

5. Discussion

The results reveal network spillover communicates its impact on political expression thresholds through interlocking psychological mechanisms. Perceived anxiety of identity surfaces as the key mediator, mirroring the tension of double cultural membership and the pressure of social judgment, and perceived risk conveys the security calculation behind expressive caution. The verified "algorithm–psychology–behavior" tri-layers structure reveals how technological infrastructure and identity politics interlock to construct expressive action. Cross-platform currents and algorithmic sorting recradicate the thresholds of visibility, and people embrace careful and strategic self-positioning. Through the inclusion of psychological mediators within political communication models, this investigation achieves a finer-grained comprehension of transnational political action under the regime of platformisation.

6. Conclusion

This paper systematically reveals the indirect mechanism by which network spillover makes an impact on the political expression thresholds of overseas Chinese students through identity anxiety and risk perception. Combined results of SEM and EFA validate the indirect utility of cross-platform exposure on expression through cumulative psychological mediation, not through informational effects. These results amplify the theoretical boundaries of digital political psychology and highlight the structuring role of algorithmic ruling in the making of transnational identities. This paper gives future studies of intercultural communication and platform ruling a methodological map, and practical lessons for educators and policy setters intending to promote healthy and safe digital engagement. Future works should utilize longitudinal tracking and affective analytics to better illuminate how digital technologies construct transnational identity making and political psychology.

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