

Enhancing Public Engagement of the Deaf or Hard of Hearing Through Media Accessibility in China and Thailand

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Abstract

Media accessibility has become a central issue in inclusive communication, yet deaf and hard-of-hearing individuals continue to encounter barriers in education, employment, and public interaction. This study aims to: (1) examine how assistive communication technologies reduce information gaps and promote fair participation; (2) explore how improved accessibility reshapes confidence and Deaf identity; and (3) analyze how policies, schools, families, NGOs, and media organizations collaborate to support long-term barrier-free communication in China and Thailand. A qualitative comparative design was employed. Fifteen in-depth semi-structured interviews were conducted with participants in China ($n = 8$) and Thailand ($n = 7$), including deaf and hard-of-hearing individuals as well as hearing professionals engaged in accessibility practice. Interview data were transcribed, iteratively coded using NVivo, and analyzed through cross-country comparison matrices to identify convergences and divergences across institutional and cultural contexts. The findings reveal three interrelated outcomes. First, assistive technologies such as real-time captioning and speech-to-text tools enhance communicative equity, though their effectiveness depends on institutional coordination and cultural integration. Second, accessibility contributes to confidence-building and identity reconstruction by increasing visibility, reducing anxiety, and strengthening Deaf cultural recognition. Third, sustainable inclusion requires multi-actor collaboration across policy systems, educational institutions, families, and media environments. The China-Thailand comparison demonstrates that policy-driven technological diffusion and community-centered cultural participation represent complementary pathways toward routine inclusive communication. This study contributes a comparative inclusive

communication model that conceptualizes accessibility as a dynamic ecosystem integrating technology, institutions, and cultural meaning, offering practical implications for inclusive media governance in diverse sociocultural settings.

Keywords: Media accessibility; Deaf and hard of hearing; Public engagement; Public relations; Qualitative comparative study

Introduction

For deaf and hard-of-hearing people, exclusion often happens in ordinary situations: A class where the lecturer turns away from the camera, a hospital queue where instructions are spoken once and then moved on, or a short video that relies on sound for meaning. In such moments, information is not absent, but it is not usable. Research on disability and media has consistently shown that access barriers persist even as digital platforms expand, because exclusion is shaped by design choices, institutional routines, and public narratives about disability (Goggin, 2009; Ellis, 2019). These findings suggest that media accessibility is not simply a technical feature, but a structural condition influencing public engagement.

China and Thailand represent two distinct pathways in the development of media accessibility. In China, accessibility is largely driven by coordinated institutional frameworks, where policy programs and technological innovation support assistive tools such as AI speech-to-text systems and real-time captioning. In Thailand, accessibility is more closely connected to sign-language-centered practices and community networks, with NGOs, Deaf associations, and educators promoting participation and cultural visibility. As a result, accessibility may be standardized within public systems or sustained through community-based communication practices. Comparing these contexts makes it possible to examine how different institutional arrangements shape participation outcomes.

This study is necessary because accessibility is still frequently discussed as a technical function or policy objective, while the more fundamental issue concerns whether deaf or hard-of-hearing individuals can participate meaningfully in public communication. Public engagement depends not only on technological access, but also on representation and communicative recognition. Public relations (PR) therefore plays a critical role, as it shapes how disability is framed, whose voices are amplified, and whether accessibility is treated as a right or as temporary support. By examining China and Thailand together, this research clarifies how media accessibility, PR practices, and inclusive education systems interact to produce either routine

inclusion or occasional accommodation. In doing so, it highlights the importance and necessity of understanding accessibility as an evolving communication ecosystem rather than a standalone technical solution.

Research Objectives

1. To examine how assistive communication technologies help make communication fairer by reducing information gaps and supporting deaf or hard-of-hearing people to take part in education, work, and public life.
2. To explore how improved accessibility shapes confidence and Deaf identity, and encourages more active participation in public space.
3. To examine how policies, schools, families, NGOs, and media cooperate to promote educational equity and build long-term, barrier-free communication.

Literature Review

1. Media Accessibility

Media accessibility is a basic condition for social participation. For deaf or hard-of-hearing people, it means more than “access to media.” It means being able to follow messages, keep pace with interaction, and respond without relying on ad-hoc help. In disability media research, accessibility is often treated as an everyday practice shaped by platforms, institutions, and user experience rather than a single technical function (Ellis, 2019). Accessibility also has more than one layer: it includes technical support, language options, and cultural fit (Greco, 2016).

New tools have expanded participation. Real-time captions, speech-to-text systems, and smart glasses can reduce communication gaps in classrooms, workplaces, and public settings (Hongli & Leong, 2024). Yet access is still uneven, because tools alone do not fix institutional gaps, training needs, or the politics of representation. In this sense, accessibility remains a sociotechnical issue tied to media power and vulnerability, not just hardware or software (Goggin, 2009).

2. Public Relations and Inclusive Communication

Public relations not only managers messages, it also affects how disability is described and understood in public life (Heath & Johansen, 2018). From the view of excellence theory, communication should be two-way and balanced to build trust and understanding between groups (Grunig, 2013). In the disability field, this means PR can help decide if deaf or hard-of-hearing people are seen as capable actors or simply as people in need of help.

PR work in disability communication often moves between two styles. One is a charity frame that centers sympathy and support. The other is an empowerment frame that centers agency, capability, and equal rights (Oliver, 2018). Media may still use stereotyped or “inspirational” storylines, even if the wording sounds like empowerment (Barnes, 1992). Recent discussions therefore argue for inclusion strategies that support authentic representation and shared voice, rather than image management alone.

China and Thailand highlight different public relations (PR) routes. In China, disability-related visibility is often tied to institutional campaigns and public media agendas. In Thailand, community groups and Deaf networks often use social platforms and digital learning initiatives to build visibility and develop sign-language-centered participation practices, including digital citizenship and media literacy training (Sriwisathiyakun & Dhamanitayakul, 2024). These differences suggest that PR is not only messaging. It is also coordination, representation, and agenda setting (Heath & Johansen, 2018).

3. Technological Innovation and Assistive Communication

Technology now plays a clear role in disability communication. Smart glasses, AI translation, and real-time captioning can make it easier to join classes and daily conversations (Tamilselvan, 2025). But how widely these tools spread still depends on cost, training, and stable support from institutions. There is also a risk that people may believe technology alone can fix the problem. Scholars warn against this kind of technological determinism, noting that inequality is also shaped by institutions and social norms (Eaton, 2025). Therefore, research on assistive tools should be linked with research on media practice, policy environments, and ethical issues.

4. Comparative Research and Research Gap

Although interest is growing, there is still relatively little comparative research on inclusive communication in Asia. A common pattern in the literature is that China is linked with strong state coordination and modernization goals, whereas Thailand is associated with local agency and cultural preservation. Newer studies also show that the two countries enter accessibility from different angles. China’s case shows Deaf-centered mixed-reality and AI avatar design as a key route for enhancing Deaf-hearing communication (Chen et al., 2025). In contrast, Thailand relies more on design-oriented online courses and digital citizenship work, which support accessibility by linking participation, training, and community inclusion (Sriwisathiyakun & Dhamanitayakul, 2024). Overall, the findings suggest that real progress needs cooperation between government, schools, media, and communities, not efforts from just one sector.

Conceptual Framework

This study proposes a conceptual framework. First, technological empowerment and fair communication form the basic layer, where assistive tools reduce information gaps and support participation. Second, confidence and identity reconstruction describe how accessible communication helps people feel more capable, more visible, and more accepted as Deaf. Third, to make this last over time, educational fairness and barrier-free cooperation are needed, bringing together policies, schools, families, NGOs, and media. Third, sustainable progress depends on educational equity and barrier-free collaboration, which join together policies, educational institutions, families, NGOs, and media organizations. Together, these dimensions illustrate how accessibility evolves from technical support into routine, inclusive public communication within different sociocultural contexts (Figure 1).



Figure 1 Conceptual Framework (Source: Constructed by researchers)

Research Methodology

Research design

This study adopted a comparative qualitative research design to examine how media accessibility shapes public engagement among deaf or hard-of-hearing individuals in China and Thailand. The comparative framework was selected to identify similarities and differences across two distinct institutional and cultural contexts. The study was informed by a phenomenological orientation, focusing on participants' lived experiences of accessibility, participation, and communication in education and media environments.

Participants and sampling

Fifteen participants were interviewed: eight from China and seven from Thailand. The sample included deaf and hard-of-hearing participants, as well as hearing participants who work closely with accessibility practice, such as deaf educators, sign-language interpreters, media

practitioners, and staff involved in accessibility promotion. Participants were recruited through purposeful sampling to capture variation in roles, age, educational background, and technology experience.

To protect privacy, most respondents requested anonymity. Each participant was therefore assigned an alphanumeric identifier (e.g., C–IDI–01; T–IDI–02). This coding system also supported cross–case comparison across the two countries. Participant profiles are summarized in Tables 1 and 2.

Table 1 Anonymous record of in–depth interview respondents (China)

Serial number	Basic background	Age range
C–IDI–01	Bachelor’s degree graduate, working in a foreign company	25–30
C–IDI–02	Postgraduate degree graduate, working in a foreign company	31–35
C–IDI–03	Current postgraduate student	31–35
C–IDI–04	Postgraduate degree graduate, education industry	36–40
C–IDI–05	Postgraduate degree graduate, education industry	36–40
C–IDI–06	Bachelor’s degree graduate, education industry	25–30
C–IDI–07	Postgraduate degree graduate, working in a foreign company	30–35
C–IDI–08	Bachelor’s degree graduate, working in a foreign company	20–25

Table 2 Anonymous record of in–depth interview respondents (Thailand)

Serial number	Basic background	Age range
T–IDI–01	Doctoral degree graduate, public welfare organization	80–85
T–IDI–02	Bachelor’s degree graduate, public welfare organization	60–65
T–IDI–03	Postgraduate degree graduate, education industry	40–45
T–IDI–04	Doctoral degree graduate, education industry	40–45
T–IDI–05	Doctoral degree graduate, education industry	45–50
T–IDI–06	Staff member, national government agency	30–35
T–IDI–07	Doctoral degree graduate, education industry	35–40

Ethical and accessibility arrangements

Ethical procedures were applied throughout the study to protect participants’ rights and well–being. Participants received clear explanations of the study purpose and the interview process, gave informed consent, and could decline any question or withdraw at any time. Confidentiality was protected through anonymized identifiers and the removal of personal details. Accessibility support (e.g., sign–language interpretation or subtitles) was provided when required.

Data collection and preparation

Semi-structured interviews were conducted between March 2025 and October 2025, using a mix of online and in-person formats. Each interview lasted approximately 60–90 minutes and was audio-recorded with participant consent. Transcripts were first generated with AI transcription tools and then checked manually to reduce errors and protect meaning. Where translation was involved, the transcripts were reviewed with support from Chinese, Thai, and sign-language interpreters to improve accuracy and contextual fidelity.

Interview prompts focused on four areas:

- (1) Media accessibility (e.g., captions, translation tools, sign-language media);
- (2) Educational participation (e.g., classroom access, interpreters, assistive devices);
- (3) Public relations (e.g., NGO advocacy, policy promotion, public campaigns);
- (4) Identity and empowerment (e.g., confidence, visibility, social inclusion).

Data analysis

Data were analyzed with NVivo using an iterative coding process. First, transcripts were coded line by line to capture recurring experiences and terms (e.g., “real-time captions,” “sign-language visibility,” “public trust,” “technology licensing”). Second, related codes were grouped into broader categories that reflected technical, cultural, and institutional dimensions. Third, core themes were refined to describe higher-level patterns, including institutional accessibility, technological empowerment, participatory communication, and identity reconstruction. Finally, a cross-country comparison matrix was used to map where China and Thailand showed convergence and divergence, and to connect individual experience with wider institutional dynamics.

Research Results

Based on in-depth interviews with 15 participants—eight from China (C-IDI-01 to C-IDI-08) and seven from Thailand (T-IDI-01 to T-IDI-07)—this chapter reports how technological innovation, public relations (PR), and inclusive education policies shape participation among deaf or hard-of-hearing people in China and Thailand. NVivo was used to code the interview data and organize it into an interpretable thematic structure. As shown in Figure 2, the coding results converged on three interrelated themes.

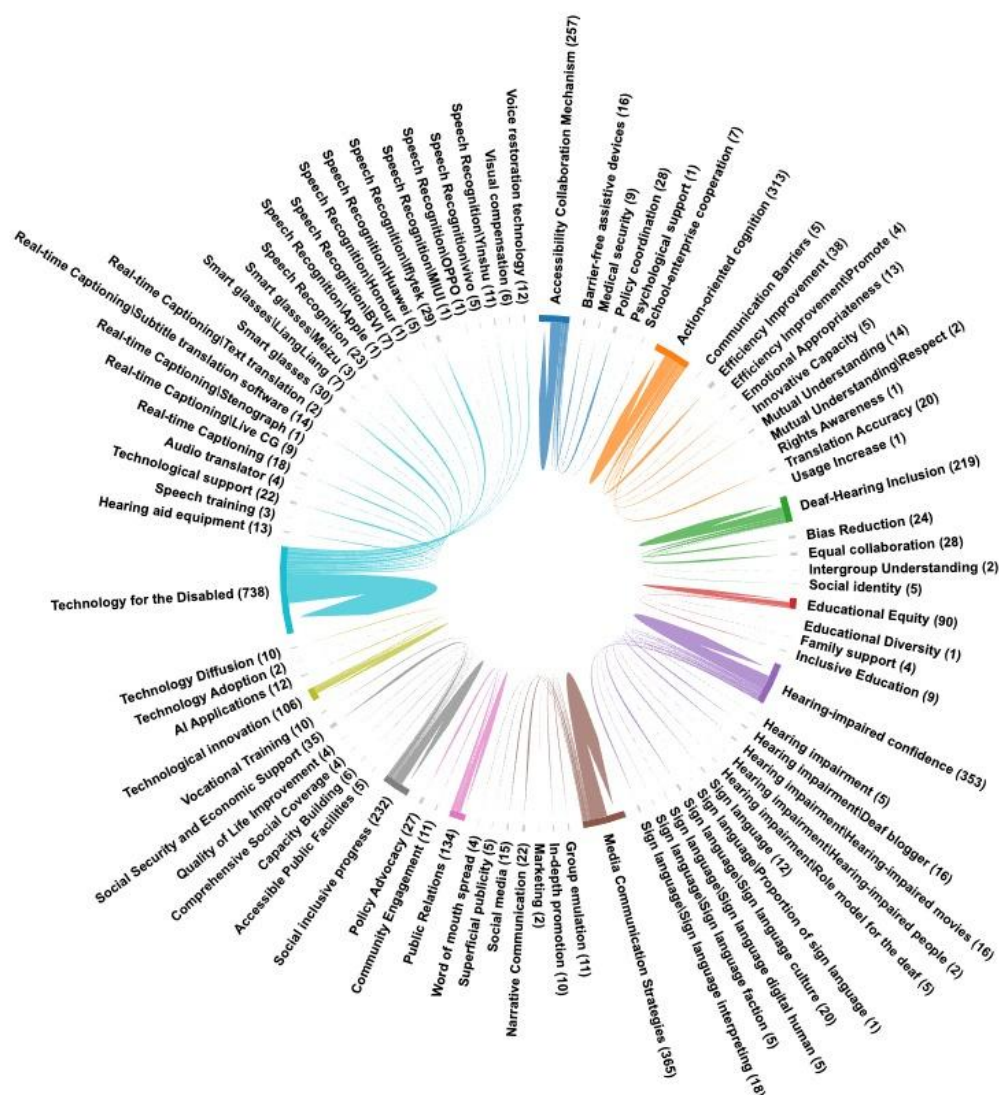


Figure 2 Data encoding effect drawing (Source: Constructed by researchers)

1. Technological empowerment and fair communication

Across both countries, participants treated assistive communication technologies as practical tools that reduce information inequality and support participation in work, learning, and public interaction. However, the ways these tools are introduced and sustained differ: Chinese accounts more often highlighted institutional diffusion and standardization, while Thai accounts emphasized community-driven adoption and cultural inclusion.

Across both countries, participants treated assistive communication technologies as practical tools that reduce information inequality and support participation in work, learning, and public interaction. The interview excerpts that ground this theme are summarized in Table 3. Chinese accounts more often highlighted institutional diffusion and standardization, while Thai accounts emphasized community-driven adoption and cultural inclusion.

Table 3 Interview excerpts on technological empowerment and fair communication

Country	Participant	Interview excerpt (verbatim)	Context (as described by participant)
China	C-IDI-01-02	"In the past, I always needed my colleagues to take notes for me during meetings. Now, with the smart subtitle glasses on, I can almost see the content in real time and answer questions on the spot"	Deaf and hard of hearing employee of a foreign company who needs to frequently communicate in meetings with hearing colleagues
China	C-IDI-03	"When listening to classes with the iFlytek Translate App, although the accuracy of subtitle translation is not perfect, at least I can grasp the key points of the class better than before, and I am more daring to raise my hand to speak. After class, I can also have in-depth discussions with the teacher about problems. "	A deaf graduate student who needs to communicate orally with his supervisor and classmates in daily life
China	C-IDI-05	"In the past, when we taught students, we only had sign language and blackboards as auxiliary means. Nowadays, through voice-to-text conversion and real-time subtitles, teaching content can be conveyed more accurately. We are still developing a scientific research project to convert the dynamic language of sign language into text."	Long-time educator at a Deaf institute
Thailand	T-IDI-01	"Sign language will always be the first language of the deaf. In the process of promoting sign language, we also use social media such as Facebook and TikTok to tell society that the deaf can do anything – teach, dance, be a leader, and so on."	A leader who actively organizes public welfare and charity activities at the Deaf Foundation
Thailand	T-IDI-04	"When I see deaf students shooting videos themselves to introduce deaf culture and uploading them to YouTube or Facebook, I feel gratified. Through media literacy training, they have grown both academically and in terms of social cognition."	Deaf media educator
Thailand	T-IDI-06	"I have observed that more and more people encounter deaf people even if they don't know sign language, they are willing to communicate with deaf people through LINE or text translation software. I believe that society's acceptance of deaf people is also increasing. And AI sign language recognition is also being piloted and developed."	Government communications policy evaluator

In China, respondents linked technological empowerment to real-time participation in settings where spoken interaction sets the pace. As illustrated by C-IDI-01-02 and C-IDI-03, tools such as smart subtitle glasses and speech-to-text apps were described as reducing reliance on colleagues and improving classroom comprehension. C-IDI-05 further framed voice-to-text conversion and real-time subtitles as changing what can be taught and how accurately content can be delivered. Together, these accounts suggest a structured route where policy support and enterprise development accelerate the diffusion of assistive tools in institutional environments.

In Thailand, empowerment was narrated through sign language visibility and community-led media practice. T-IDI-01 emphasized sign language as the first language of the Deaf and described social media as a vehicle for explaining Deaf capability to the wider public. T-IDI-04 highlighted student-led media production and media literacy training as part of accessibility practice. In addition, T-IDI-06 pointed to everyday communication workarounds—using LINE or text translation—as signals of growing social acceptance and evolving accessibility norms. These patterns indicate a participatory pathway where innovation is sustained through cultural inclusion and social collaboration.

Comparatively, China's technological empowerment is often tied to efficiency and standardization in formal systems, while Thailand's empowerment emphasizes representation, participation, and Deaf leadership. As reflected in the interview evidence, the two pathways appear complementary: one supports structural diffusion through institutions, while the other strengthens cultural legitimacy and self-representation in public communication.

2. Confidence and Identity Reconstruction for the Deaf

Confidence emerged across interviews as both an outcome of improved accessibility and a marker of identity change. Rather than describing confidence in abstract terms, participants linked it to concrete shifts in interaction: reduced anxiety, greater willingness to speak up or lead, and stronger recognition of Deaf identity in public space. The key excerpts that support this theme are presented in Table 4.

Table 4 Interview excerpts on confidence and identity reconstruction

Country	Participant	Interview excerpt (verbatim)	Context (as described by participant)
China	C-IDI-04	"When various forms of assistance for the disabled, such as translation technology, can truly solve the practical communication problems of the deaf and make more people aware of them through media dissemination, I believe it will bring about the confidence and courage to speak up and participate."	A leader who actively follows up on technological innovation in a deaf organization
China	C-IDI-06	"In the past, when I was conducting painting training, it was not convenient to explain sign language during the painting process. I was always worried that others wouldn't understand me and I would misunderstand the students' meaning. But now, the voice translation subtitles are getting more and more accurate, and there is more interaction in the class. And be able to confidently communicate one's painting ideas and techniques with the able-bodied"	A deaf designer dedicated to illustration and also providing painting education and training for the deaf
Thailand	T-IDI-01	"We hope that society will see that the deaf are not a problem but a culture and a language."	Deaf Foundation leader
Thailand	T-IDI-03	"Our sign language visual information is fully covered. Students can speak confidently in class using sign language and understand class knowledge faster and better than in Thai."	A hard of hearing educator dedicated to the education of the deaf
Thailand	T-IDI-04	"Seeing successful deaf role models will make students more convinced that they can do it."	Deaf media educator

In China, confidence was frequently described as emerging through technological agency. As shown by C-IDI-04 and C-IDI-06, respondents linked confidence to practical improvements in communication: translation tools reduce misunderstandings, increase interaction, and make participation in mixed hearing settings more balanced. Importantly, C-IDI-04 also connected confidence to broader media dissemination, suggesting that visibility and awareness are part of how people gain the courage to participate. In this sense, confidence is not only an individual feeling, but a communicative outcome shaped by both tools and social recognition.

In Thailand, confidence was more often tied to cultural belonging and public reframing of Deaf identity. For T-IDI-01, the key change is moving away from seeing deafness as a “problem” and toward seeing it as a culture and a language. T-IDI-03 described how a classroom that is

fully accessible in sign language improves both students' confidence and their learning efficiency. T-IDI-04 underlined that Deaf role models play a key role, since their achievements make active participation appear realistic and within reach. Seen together, these insights describe confidence as a social product shaped by identity recognition, peer validation, and strong Deaf leadership.

By contrast, confidence in the Chinese interviews is more often linked to tools and institutional support, while in Thailand it is more closely tied to recognition, identity, and self-representation. Yet both sets of accounts point in the same direction: confidence grows when deaf or hard-of-hearing people can communicate on equal terms and be recognized as active participants rather than passive recipients.

3. Educational equity and barrier-free collaboration

Education was widely framed as the foundation of long-term empowerment. Participants in both countries stressed that educational accessibility depends on collaboration across actors and systems. Tools alone are insufficient; without coordination among policies, schools, interpreters, families, and community organizations, accessibility remains partial and uneven. The interview evidence supporting this theme is summarized in Table 5.

Table 5 Interview excerpts on educational equity and barrier-free collaboration

Country	Participant	Interview excerpt (verbatim)	Context (as described by participant)
China	C-IDI-04	"The government's legislation is already very good. More and more hearing-impaired people can receive fair education, from being unable to go to school before to now pursuing master's and doctoral degrees. However, for barrier-free development, continuous promotion is still needed because there is still a part of the deaf who cannot hear or speak. We need to focus on helping this group of people"	Respondent discussing policy and education progress
China	C-IDI-08	"The advancement of voice-to-text conversion has made classrooms fairer, but in the media, we still see some voices that do not support it. We hope that some discrimination issues in society can be truly addressed and barrier-free access can be truly achieved."	Respondent discussing classroom gains and wider social attitudes
China	C-IDI-07	"Sometimes when participating in activities for the deaf, it is found that there are translation devices available, but there is a lack of cross-departmental collaboration mechanisms. For instance, there are no sign language	Respondent describing implementation gaps in activities

Country	Participant	Interview excerpt (verbatim)	Context (as described by participant)
		interpreters, and the real needs of the deaf are not well taken care of. Without good coordination among personnel departments, the disability assistance devices will not play a better role."	
Thailand	T-IDI-01	"So the most important thing for us is to tell parents to have a spirit of dedication. Please let children participate in everything as equally as possible, so that they can have the ability to speak up for themselves. The importance of special education is self-evident."	Respondent emphasizing family engagement
Thailand	T-IDI-03	"To overcome the communication and learning barriers in deaf education, our classroom has adopted a three-camera system to achieve full visual access. One camera is aimed at the teacher, another at the sign language interpreter, and the third at the students. The real-time capture system simultaneously displays all visual streams – teachers, interpreters and slides – on the main screen, switching focus or zooming as needed, effectively guiding attention and enabling students to communicate confidently."	Respondent describing multimodal classroom design
Thailand	T-IDI-05	"The government and foundations should cooperate to promote sign language, subtitles and public awareness, not just campaign slogans."	Respondent stressing sustained cooperation
Thailand	T-IDI-04	"Public communication should have deaf people as narrators and hosts. Only in this way can it be truly co-created communication."	Respondent proposing Deaf-led narration as PR bridge
Thailand	T-IDI-07	"Educational equity is not only about equal access to school for the deaf, but also about social participation and the expansion of employment opportunities. We hope to truly achieve an accessible society."	Respondent linking education to participation and employment
China	C-IDI-04	"The government's legislation is already very good. More and more hearing-impaired people can receive fair education, from being unable to go to school before to now pursuing master's and doctoral degrees. However, for barrier-free development, continuous promotion is still needed because there is still a part of the deaf who cannot hear or speak. We need to focus on helping this group of people"	Respondent discussing policy and education progress

China-based participants acknowledged strong progress in legislation and educational opportunity, including pathways into postgraduate study. As reflected in C-IDI-04, this progress is viewed as meaningful but incomplete, especially for those facing the most severe communication barriers. C-IDI-08 further indicated that classroom gains do not automatically translate into social acceptance, because discrimination and public skepticism still appear in media discourse. A key bottleneck described by C-IDI-07 is coordination: devices may exist, yet interpreters and cross-department collaboration mechanisms may be absent, reducing the practical impact of accessibility support. These interviews portray educational equity as a system issue that requires policy, technology, staffing, and social attitudes to align.

Thai participants described educational inclusion as a shared, networked responsibility. T-IDI-01 emphasized family engagement as a foundation for children's equal participation and self-advocacy. At the classroom level, T-IDI-03 described a multimodal, three-camera visual access system designed to integrate teachers, interpreters, students, and learning materials in a single visual field. Respondents also stressed sustained cooperation between government and foundations, rather than short-term campaigns (T-IDI-05). T-IDI-04 highlighted the importance of Deaf-led narration in public communication as a form of co-creation. Finally, T-IDI-07 linked educational equity to social participation and employment expansion, framing accessibility as a pathway to full civic inclusion).

Comparatively, China's collaboration challenges appear within a more vertically organized system, while Thailand's accounts emphasize horizontally networked collaboration across families, schools, NGOs, and public communication actors. Yet both converge on the same conclusion: as shown across the excerpts, barrier-free education becomes meaningful only when coordination is sustained, roles are clearly supported, and accessibility is available as routine practice rather than occasional accommodation.

Discussion

This study's findings both align with and extend prior work on disability, media, and accessibility. Consistent with disability media scholarship, the results confirm that accessibility is not merely a technical condition but a sociotechnical arrangement shaped by media institutions, platform design, and public narratives (Goggin, 2009; Ellis, 2019). Participants in both China and Thailand emphasized that "access" becomes meaningful only when it enables understanding, timely response, and active participation. This

reinforces existing arguments that inclusion depends on communicative structures rather than on the simple availability of assistive tools.

At the same time, the comparative findings clarify how national contexts influence accessibility outcomes. In China, accessibility is often embedded within policy-supported technological systems, reflecting a structured and institutionally coordinated approach. However, participants reported that gaps in staffing, cross-department coordination, and implementation consistency can weaken inclusive effects. In Thailand, accessibility is more strongly connected to community participation, Deaf cultural visibility, and digital citizenship practices (Sriwisathiyakun & Dhamanitayakul, 2024). While this bottom-up model strengthens identity recognition and social engagement, participants also noted that sustainability may be limited by resources and institutional integration. The comparison therefore highlights two distinct but complementary pathways: institutional diffusion in China and community-driven participation in Thailand.

The Deaf Information Dissemination Adaptation Model (Figure 3) integrates these convergences and tensions. The model demonstrates that accessibility develops through the interaction of top-down institutional structures and bottom-up participatory practices, rather than through either dimension alone. In doing so, the findings support media systems theory in explaining structural differences between national contexts (Hallin & Mancini, 2004), affirm normative theory's emphasis on accessibility as an ethical obligation (Christians, 2009), and extend organizational communication theory by illustrating how co-creation and coordination operate within different media ecologies (Heath & Johansen, 2018). The model therefore clarifies that sustainable public engagement emerges when technological empowerment, institutional coordination, and cultural recognition function together as an integrated communication ecosystem.

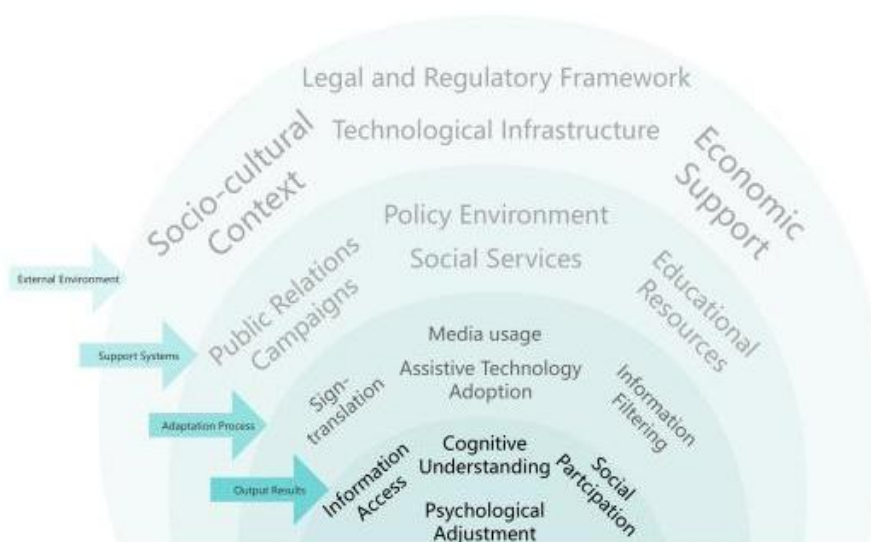


Figure 3 Deaf Information Dissemination Adaptation Model (Source: Constructed by researchers)

New Knowledge from Research

This study contributes new knowledge by proposing the Inclusive Communication Model (ICM), a comparative framework that conceptualizes media accessibility as a layered and adaptive communication process rather than a standalone technical solution. Existing research often examines accessibility in terms of technology or policy separately. In contrast, this study integrates empirical findings from China and Thailand to show how technological empowerment, confidence and identity reconstruction, and multi-actor collaboration interact to shape sustainable public engagement. The model specifies that assistive technologies reduce information asymmetry as an initial enabling condition, confidence functions as a mediating mechanism that transforms access into participation, and collaborative governance across policy systems, educational institutions, families, NGOs, and media organizations stabilizes accessibility practices over time. By linking top-down institutional diffusion and bottom-up participatory practices within one explanatory structure, the ICM advances theoretical understanding of accessibility as a dynamic communication ecosystem. Practically, the model offers guidance for policymakers, educators, and media organizations seeking to institutionalize accessibility as routine inclusive communication rather than temporary accommodation.

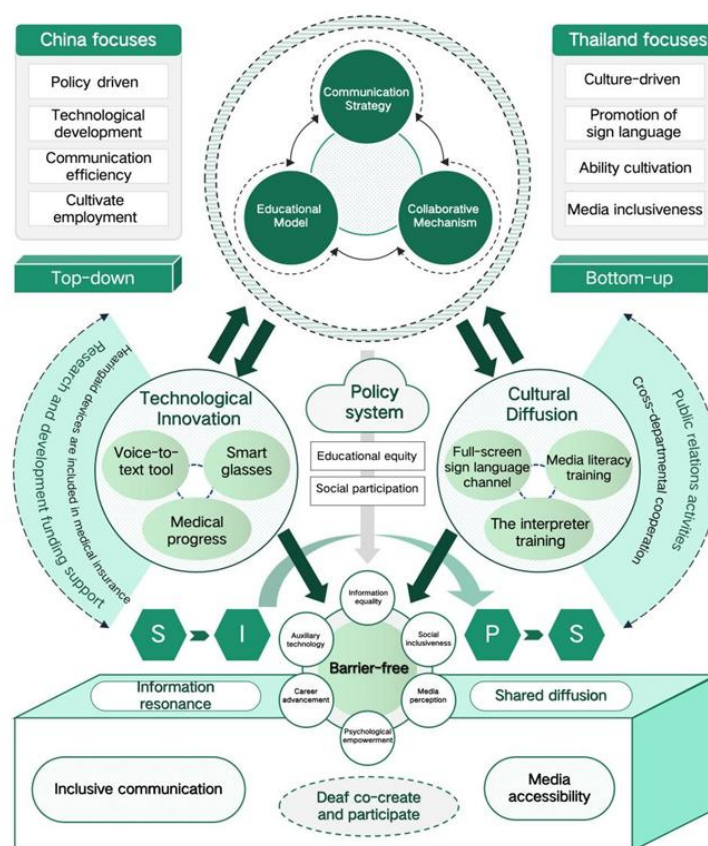


Figure 4 Barrier-free and ICM for Deaf Media in China and Thailand (Source: Constructed by researchers)

Conclusion

This study examined how media accessibility contributes to public participation among deaf and hard-of-hearing communities in China and Thailand. Drawing on 15 in-depth interviews and guided by media systems theory, normative theory, and organizational communication theory, the research shows that accessibility is not merely a technical condition but a communication ecosystem shaped by policy, media practices, and cultural interaction.

The findings demonstrate that assistive technologies—such as AI-based translation, real-time captioning, and smart glasses—play a critical role in reducing communication barriers. In China, these technologies are embedded in a policy-driven innovation system that emphasizes efficiency, standardization, and institutional diffusion. Participants described how such tools enable direct participation in meetings, classrooms, and online environments, reducing reliance on intermediaries. In Thailand, technological innovation is more closely linked to public expression and cultural participation. Here, accessibility supports not only comprehension but also visibility, allowing deaf individuals to become content creators and narrators of Deaf culture.

Public relations practices further shape how accessibility translates into participation. In China, PR is often aligned with national policy agendas and corporate initiatives, framing accessibility as a public responsibility and, increasingly, as a civic right. In Thailand, PR is more community-led, with Deaf organizations using social media to challenge stereotypes and promote Deaf pride. Despite these differences, both contexts show that PR acts as a bridge between technical accessibility and social recognition.

Overall, the study concludes that accessibility becomes meaningful only when technological tools, institutional arrangements, and cultural narratives reinforce one another. When these elements align, deaf and hard-of-hearing individuals move from the margins of communication to active participation, not only as recipients of information but also as contributors to public discourse. This comparative perspective underscores that inclusive communication is achievable through different pathways, provided that accessibility is treated as a shared and sustained social commitment.

Suggestions

1. General recommendations

First, governments should institutionalize media accessibility as a communication right rather than a temporary welfare measure. Clear standards for captions, sign language

interpretation, and AI-based tools should be embedded into national media and digital governance frameworks, with stable funding for implementation and maintenance.

Second, educational institutions should strengthen inclusive education by combining assistive technologies with pedagogical design. Training for teachers and media practitioners should address not only how to use tools, but how to communicate inclusively in mixed hearing environments.

Third, public relations and media organizations should shift away from sympathy-based narratives toward Deaf-led representation. Supporting Deaf creators as narrators, hosts, and producers can help normalize accessibility and ensure that public communication reflects lived experience rather than external interpretation.

2. Recommendations for further research

Future studies should adopt longitudinal designs to examine how accessibility practices evolve as technologies mature and policies stabilize. Comparative research could also be extended to other cultural and political contexts to test the transferability of the proposed model. In addition, more work is needed to explore how different forms of PR governance influence the sustainability of inclusive communication, particularly in balancing institutional coordination with community autonomy.

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