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From consciousness to actions: shaping the library consciousness of ethnic minorities with an actor-network theory approach

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Abstract

Introduction. Ethnic minorities (EMs) are a significant focus for public libraries striving to enhance more inclusive, egalitarian and sustainable services. Despite the availability of library services to EMs, their engagement in libraries is still relatively low, which can be further attributed to the lack of library consciousness.

Method. This study selected City L, an autonomous city for EMs located in the southwest of China, as the research site to explore the human and nonhuman actors of EMs' library consciousness. The ethnographic method was conducted through a 12-month longitudinal observation and engagement in City L. A total of 35 government officials and librarians, as well as 128 EM residents, were interviewed.

Analysis and Results. Adopting actor-network theory as an approach, the thematic analysis reveals the interactive relationship and translation process between human and nonhuman heterogeneous actors (including cultural traditions, education levels, information acquisition channels, economic conditions, EM residents, librarians and government officials) in the establishment of EMs' library consciousness.

Conclusion. Cultural traditions were positioned as the focal actor due to their influence on EMs' knowledge acquisition processes. Based on the findings, stakeholders in EMs' library services can take corresponding actions to shape EMs' library consciousness.

Introduction

As institutions of equity and access, public libraries have the responsibility to provide services for multicultural communities (IFLA, 2009) and contribute to building community, creating social capital and bridging digital divides (Kinney, 2010; Scott, 2011; Vårheim et al., 2008). Central to their mission is the provision of services that are inclusive and comprehensive, ensuring that all individuals, including ethnic minorities (EMs), have equal opportunities to benefit from the information services they offer (Elliott, 1986a, 1986b, 1999; IFLA, 2009). As integral members of society, EMs are a significant focus for public libraries striving to enhance more inclusive, egalitarian, and sustainable services (Geraldo, 2021).

Many countries have established specialised library services for EMs, with some even incorporating these services into national policies (Berger, 2002; Thorhauge, 2003). In China, library services for EMs have made significant progress in several aspects such as increase in resources, acceleration in digital transformation, and enhancement of librarian competencies (Feng Y., 2018b). This progress indicates that EMs have enough and equal access to libraries and successfully bridged the first-level digital access divide (Feng W. et al., 2024). However, despite the presence and availability of library services in China, a discernible gap persists in the engagement of libraries among EMs (Ke and Peng, 2018; Shi et al., 2023; Zhou et al., 2020), which has been further attributed to the lack of library consciousness by several scholars (Li, 1996; Liu Z., 1989; Zhang Y., 2019). Library consciousness refers to the recognition, awareness, appreciation and engagement with library services and resources (Liu G. and Fu, 2002; Wang Y., 1998). The lack of library consciousness is particularly concerning as it may indicate both subjective and objective barriers to accessing information. The constraints behind the lack are multifaceted and require a nuanced understanding to address effectively.

Some important actors, such as the government (Tanackovic et al., 2012b), library associations (K. Kim and Sin, 2008), national libraries (Fuentes-Romero, 2004), and community leaders (Weller, 2005), have been identified to influence EMs' access to and engagement with library services. The previous literature has indicated that both human and nonhuman actors can affect EMs' library consciousness. However, there is a lack of in-depth empirical research and descriptive focus to conceptualise these actors and their relationships, which limits the applicability of current findings.

To address these gaps, this study contends that actor-network theory (ANT) should be introduced to library consciousness studies. The systematisms between human and nonhuman actors are emphasised by ANT, which also focuses on the formation and translation of networks between actors (Latour, 2007; Sovacool and Hess, 2017). This research aims to identify actors influencing EMs' library consciousness and examine their interactions in shaping it. To our knowledge, this is the first empirical study to explore EMs' library consciousness. Through achieving the above objectives, the study can practically offer some useful insights for related groups to strengthen EMs' library consciousness, therefore helping them overcome the second-level and third-level digital divide. Theoretically, this study can contribute to the current literature by conceptualising EMs' library consciousness from the perspective of ANT.

Literature review

Library consciousness

The concept of *library consciousness* was first used by Ranganathan (1950) to describe the awakening of awareness regarding the value and significance of libraries in rural India. Thompson (1954) also noted the awakening of library consciousness in the Middle East, where libraries played a dual role as both indicators and catalysts of social change. The social transformation and religious differences across different countries in the Middle East have presented distinct challenges to librarianship development. Recognising the importance of library consciousness, the *Library Awareness Program* was launched by the United States government in the 1970s to collect

information on the reading habits of library users (Fitch, 1992). However, research on library consciousness across the international academic community is quite limited and previous research or programmes did not provide a unified definition of library consciousness.

In the Chinese context, library consciousness has been articulated across four key dimensions: the government, librarians, the public and the news media (Li, 1996). Wang Y. (1998) defines library consciousness as the degree to which individuals recognise the importance of libraries. This recognition implies that when faced with information requirements, individuals consciously think of libraries and actively engage with libraries, fostering a sense of responsibility for libraries' survival and development. Wang Y.'s (1998) definition of *library consciousness* has been adopted by several Chinese scholars (Cheng, 2006; Wang R., 2012; Zhang S., 2008). Subsequently, Liu G. and Fu (2002) differentiate between narrow and broad definitions of library consciousness. The narrow definition focuses on the recognition and use of traditional libraries, while the broad definition includes awareness and utilisation of all information resources related to libraries, such as document collections, exhibition spaces, digital platforms and mass communication channels.

Although these definitions from Chinese scholars are not yet unified, they reflect the public consciousness within the mindset culture, according to the cultural formation theory proposed by Feng Tianyu, a renowned Chinese cultural historian. As suggested by this theory, culture can be classified into four levels, moving from external to internal: material culture, institutional culture, behavioural culture and mindset culture. Changes in material culture are the most noticeable, while mindset culture constitutes the core of cultural identity. Mindset culture is characterised by public consciousness that operates as an instinctive *subconscious* or *collective unconscious*. This consciousness is difficult to grasp and navigate due to its remarkable stability and continuity. Consequently, consciousness does not always correspond directly or swiftly to social and environmental changes (Feng T., 2013). The development of librarianship among China's EMs mirrors the patterns of consciousness formation. Given that significant advancement has happened in EMs' library services with historical, industrial and societal progress, EMs' library consciousness has developed slowly (Zhang Y., 2019).

The lack of public library consciousness hinders the development of reading societies and cultural communities (Liu G. and Fu, 2002). Various groups, including students (Al-Muomen et al., 2012), the elderly (Liu X., 2008) and adolescents (Ruan, 2006; Zhang S., 2008), demonstrate limited library consciousness. The strength of library consciousness also differs across sectors (Sang, 2006). Factors influencing public library consciousness include social productivity, public educational attainment, the completeness of information resources, as well as the societal promotion, public perceptions and operational philosophies of libraries (Wang Y., 1998; Zhang S., 2008). Library consciousness can be fostered and cultivated through various actions, such as strengthening collaborations between libraries, utilising functions of library societies, strengthening social publicity of libraries, improving competencies of librarians, and rethinking service philosophies of libraries (W. Feng et al., 2023; W. Feng and Zhou, 2023; Ruan, 2006; Wang R., 2012).

Library services for EMs

In the west, EMs are often viewed as marginalised and vulnerable groups, such as immigrants, refugees (Berger, 2002; Vega and Rumbaut, 1991) and people of colour (Kim K.-S. et al., 2007), primarily stemming from a colonial past as displaced communities (Cabecinhas and Feijó, 2010; Foster, 2023). Even after generations in host nations, they struggle to form a cohesive cultural identity, which may contribute to social tensions and potential conflicts (Bahouli, 2024; Hu and Cheung, 2024). Public libraries are instrumental in nurturing the cultural identity and values of multicultural populations, including EMs (IFLA, 2009; IFLA and UNESCO, 2012), by fostering intercultural dialogue and developing diverse library services (Buttlar, 1994; Elbeshausen and Skov, 2004; Tanackovic et al., 2012b, 2012a; Weller, 2005; Zhou et al., 2019).

To achieve this mission, several nations have provided diverse library services tailored to EMs. For instance, serving as inclusive community spaces for EMs, Danish libraries are tasked with providing information resources in the native languages of immigrants and refugees, along with Danish language instructional materials to facilitate their integration into Danish society (Berger, 2002; Thorhauge, 2003). Similarly, despite some EM groups having resided in Croatia for generations, there remains a demand for library resources in their native languages. However, their library usage frequency is still lower than that of other information sources such as television, newspapers, and the Internet (Petr, 2004; Tanackovic et al., 2011, 2012b). In the UK, public libraries often collaborate with self-help organisations serving EMs to provide educational and informational services in their native languages. However, EMs in the UK generally prefer to access services outside the public sector (Elliott, 1986a, 1986b, 1999).

Despite the diverse services offered by libraries to EMs, the overall library utilisation rates of EMs remain low (Hansson, 2011; Shi et al., 2023). This suggests that the low engagement with library services is more likely attributable to internal factors within EMs, with a fundamental lack of library consciousness being the primary cause. This deficiency in library consciousness may be associated with various factors, such as cultural adherence, language barriers, socioeconomic disparities, potential racial discrimination, absence of materials reflecting EMs' cultures and a shortage of professional librarians (Ellis, 1983; Matthews and Roper, 1994; Thwaites, 1993; Tufte and Riis, 2001; Wu et al., 2022). Consequently, to enhance EMs' engagement with libraries, it is imperative to not only continue improving library services but also to focus on nurturing their library consciousness.

Library services for EMs in China

China is home to 56 ethnic groups, with the Han nationality as the majority and the other 55 groups classified as EMs. China views its EMs as equal and integral members of society, each with unique cultural traditions (Feng Y. and Cheung, 2008; Ma, 2006). Although these groups represent a small percentage of the total population, their settlements are distributed across approximately 60 per cent of the country's territory(Mackerras, 2018). China's EM policy emphasises national equality and ethnic unity by protecting EMs' languages, cultures and traditions and promoting harmonious coexistence among all ethnicities. This principle guides the mission of Chinese libraries to ensure EMs' equitable access to and utilisation of library services (Qin, 2023; Yao et al., 2024).

Since the Reform and Opening-up period, libraries in China's EM regions have made significant progress, as demonstrated by the increasing number of libraries, enhanced operational standards, enriched information resources, improved service quality, and strengthened librarian competencies (Feng Y., 2018b; Zhou et al., 2020). These advancements enable libraries in China's EM regions to play crucial roles in fostering cultural confidence, safeguarding cultural heritage, promoting social equity, supporting rural revitalisation, fostering ethnic unity and facilitating intercultural exchange and integration (Feng Y., 2022). More importantly, the *Public Library Law of the People's Republic of China* (2018) has included provisions for supporting librarianship development in EM regions, thereby providing essential backing for its advancement.

Despite progress in external conditions for librarianship in China's EM regions, library consciousness remains underdeveloped (Wang H. et al., 2015). Empirical studies highlight constraints on this growth. For instance, Ke and Peng (2018) examined public cultural services in a Guiyang EM town, identifying issues such as limited local government investment, inadequate promotion of EM cultures and neglect of vulnerable populations. A survey of 29 grassroots libraries in EM regions revealed significant challenges in cultural service provision, librarian training and service promotion (Zhou et al., 2020). Recently, Shi et al. (2023) conducted longitudinal fieldwork in the Wuling Mountain EM regions, uncovering factors hindering librarianship development, including a unique organisational framework, low public interest in library services, a disconnect between agency autonomy and incentives and insufficient community engagement in library development.

To address these constraints, Chinese scholars have proposed certain strategies, such as providing multicultural and multilingual services in EMs' public libraries (Wu et al., 2022; Zhou et al., 2019), improving digital services for EM residents (Feng Y., 2018a), and increasing investment on librarianship in EM regions (Feng Y. et al., 2023). Nonetheless, these strategies are overly general and insufficient for improving EMs' library consciousness.

ANT as an approach

Actor-Network Theory (ANT) conceptualises society as a network of interconnected actors. It challenges traditional understandings of agency and social structures by proposing that all entities, whether human or nonhuman, are part of a network of interactions (Sovacool and Hess, 2017). ANT emphasises the construction of *actors* and the networks through which they operate, arguing that these networks are not pre-given but are constructed through ongoing social processes (Dolwick, 2009).

In ANT, an actor possesses agency to influence its surroundings, create dependencies among other elements and translate the intentions of others into its own language (Callon and Latour, 1981; Dolwick, 2009; Latour, 2012). Actor encompasses both human (e.g., individuals, organisations) and nonhuman (e.g., ideas, technologies, visions) entities (Latour, 2007). Network is neither a purely technological construct like the Internet nor a representation of informal ties among human actors as stated by Granovetter (1973). Instead, the network serves as an effective tool for understanding the processes of connection and operation among actors.

The establishment of an actor network is contingent upon the ongoing translation of interests among its actors (Callon, 1984; Cohen and Cohen, 2012; Latour, 1983). Translation refers to the process by which actors strive to articulate the interests of other actors on their terms (Law and Hassard, 1999). Callon (1984) outlines four stages of translation, which are interwoven rather than occurring in a strictly linear fashion. If the translation process is successful, the focal actor 'speaks for others but in its own language' (Callon et al., 1986, p. 26).

The first stage is *problematisation*, where the focal actor defines the common problem/goal and the 'obligatory passage points' (OPP) to solve the common problem. To enter the network, other actors must pass OPP and align their interests with the common solutions. This stage positions the focal actor as essential and indispensable within the network (Callon et al., 1986). The second stage is *interessement*, where the focal actor attempts to lock other actors into the roles it has proposed (Law, 1986). In the second stage, the OPP serve as the channel to achieve the interest of all actors and further enhance the interaction between actors. The third stage, *enrolment*, seeks to incorporate as many actors as possible into the alliance. The effectiveness of the solutions to the OPP determines the actors' ability to integrate into the network and impacts the stability of the network. The final stage is *mobilisation*, where the focal actor transforms its network into representatives for other actors, and actors are motivated to actively work together to go through the OPP (Shiga, 2007).

ANT is familiar in the field of library and information science (LIS). It has been used to guide librarians to better train students (Lihosit, 2014), analyse the informal learning environment of libraries (Loh and Nichols, 2020) and examine the design and inclusion of specific objects within libraries (Parker, 2021). In information system research, it is important to explore not only the technical and social systems individually but also the phenomena that arise from their interactions. ANT offers a robust qualitative analysis tool that enables researchers to gain a deeper and more systematic understanding of information systems and their impacts (Hanseth et al., 2004; Orlikowski and Iacono, 2001; Walsham, 1997).

Enhancing EMs' participation in libraries is essential for building cultural networks, strengthening identity recognition and promoting ethnic unity (IFLA, 2009; Kuang et al., 2023). To achieve these

common goals, establishing EMs' library consciousness has become the OPP in the actor network. Although EMs' library consciousness is not strong, ANT can be utilised to analyse the intricate interactions of actors involved in establishing library consciousness and promote future actions of actor network formation. Thus, ANT is employed by this research as the analytical tool.

Research methodology

This research utilised an exploratory inductive approach since there is 'a general lack of knowledge' (Elman et al., 2020, p. 24) about the topic of EMs' library consciousness. Ethnography, as a classical inductive approach, has a long history of use in social studies, especially in studies that focus on social-cultural issues (Berg and Lune, 2017). In this way, tacit and fragmented internal ideas can be gradually translated into scientific knowledge that outsiders can understand and accept (Berg and Lune, 2017). Thus, ethnographic methods were employed to gather detailed information about the cultural practices, beliefs and attitudes of the EM community towards libraries and information access. This method has been adopted by certain previous research in studying EMs' cultural issues (e.g., Bansal et al., 2022; Coombes, 1991; Takenaka, 2009; Taylor, 2008).

To gain firsthand insights into the local EM community, the first author registered for the Western Development Volunteer Programme (https://xibu.youth.cn/) supported by the Central Government of China. This programme, initiated in 2003, selects postgraduate students and graduates to provide voluntary services as government servants in China's developing regions. With the support of this programme, the first author conducted a twelve-month longitudinal ethnography from July 2022 to June 2023.

The ethnographic fieldwork was carried out in an autonomous city for EMs in the southwest of China, which, for the sake of anonymity, will be assigned the pseudonym City L. City L encompasses a diverse population consisting of 37 EM groups, accounting for approximately 80 per cent of City L's total population. This unique demographic composition offers a rich context for exploring EMs' library consciousness. Additionally, a comprehensive library system has been established in City L. This includes a municipal library, eight county/district libraries, 66 township/neighbourhood libraries, and numerous village-level rural libraries. However, EMs in remote areas of City L, characterised by high altitudes, limited resources and dispersed populations, particularly suffer from a lack of library engagement and show a lack of library consciousness. This disparity highlights the ongoing relevance of studying EMs' library consciousness in City L, making it an ideal site for this research.

The data collection period of this ethnographic study was divided into three stages:

Stage one: trust-building phase (July 2022 to August 2022): As suggested by Postill and Pink (2012), researchers (or ethnographers) should establish trust and symmetrical power relations with informants, forming reciprocity, or what Clifford (1980, p. 527) termed the 'ethnographer-informant exchange'. Thus, the research team first connected with local government units and cultural organisations (e.g., library associations). This was achieved through the guidance of local Tibetan staff members with 20 years of work experience in City L and fluent in Sino-Tibetan languages. The research team engaged in preliminary meetings and discussions with these staff to gain their support and cooperation for the research. Concurrently, the team conducted random visits to EM households to understand their basic usage of library services and to establish trust and connections with the local EMs. Notably, the local Tibetan staff assisted and accompanied the subsequent two phrases, helping the research team resolve the translation problem between Mandarin and EM languages.

Stage two: interviews with stakeholders (September 2022 to December 2022): The author visited government departments and various libraries in City L, interviewing a total of 35 government officials and librarians. The department distribution of the interviewees is shown in Table 1. Each

interview lasted approximately 30-40 minutes, aiming to gather rich, practical data from stakeholders representing different levels within City L's library network.

Representative letter	Department	Number of Interviewees
A	municipal government	2
В	municipal cultural bureau	2
С	county-level cultural and tourism bureaus	4
D	county-level cultural activity centres/libraries	7
E	township cultural stations/libraries	8
F	village-level rural libraries	12

Table 1. The department distribution of the interviewees.

During visits to local libraries, the author conducted participatory observations of EMs' use of library resources and engaged in informal conversations with EM users. The approach began with the establishment of a role that allowed the author to become a part of the library's daily operations, interacting with patrons and staff, and observing the flow of activities. This immersive experience yielded valuable insights into understanding EMs' library consciousness, which was documented in detailed field notes.

Stage three: interviews with local EM residents (January 2023 to June 2023): The author conducted semi-structured interviews with local EM residents in City L. A total of 128 EM residents were reached out during the process. The details of all informants are shown in Table 2. The interview questions covered a range of topics, including information requirements, information sources, daily library engagement, knowledge of the library, daily cultural activities, Internet use, etc. Given the varied levels of library consciousness among EM residents, the interview duration ranged from 15 to 60 minutes.

Item	Content	Value	Proportion
Gender	Female	56	43.75%
	Male	72	56.25%
EM Groups	Tibetan	58	45.31%
	Hui nationality	22	17.19%
	Dongxiang nationality	18	14.06%
	Man nationality	11	8.59%
	Mongol nationality	8	6.25%
	Tujia nationality	6	4.69%
	Kazak nationality	5	3.91%
	Undergraduate and above	22	17.19%
	High-School level	37	28.91%
Education Levels	Junior-Middle School Level	26	20.31%
	Primary-School level	26	20.31%
	illiteracy	17	13.28%
	Over 65 years old	14	10.94%
Age	50-65 years old	27	21.09%
	31-50 years old	36	28.13%
	19-30 years old	44	34.38%
	Under 18 (including 18)	7	5.47%
	7 times and above	25	19.53%
How often do you use online/offline library services per year?	4-6 times	35	27.34%
	1-3 times	40	31.25%
	Never	28	21.88%

Table 2. Demographic characteristics of participants.

All the interviews were audio-recorded and then transcribed into approximately 200,000 Chinese characters of transcripts. To ensure accuracy and consistency, especially in the translation of EMs' language elements, the transcripts were reviewed by the local Tibetan staff and meticulously checked by the research team. The interviews highlighted the specific impact of both human and nonhuman actors on EMs' library consciousness. To better showcase the diverse agents and dynamic processes in shaping EMs' library consciousness, this article adopts ANT as an analytical framework. Since ANT emphasises the agency of both human and nonhuman actors (Latour, 2007), this article identifies seven actors through thematic analysis, namely cultural traditions, education levels, information acquisition channels, economic conditions, EM residents, librarians (or libraries) and government officials (or the government). Through four translation steps of problematisation, interessement, enrolment and mobilisation, this research explores the dynamic process of establishing EMs' library consciousness.

Findings

Alignment with EMs' cultural traditions

The cultural traditions of EMs, as a significant nonhuman actor, creates a robust network of influence through historical and social practices. This network profoundly shapes the knowledge acquisition processes of EMs. Through the process of *translation*, these cultural traditions of EMs emphasise traditional oral transmission and informal learning within the community, which carry specific benefits and values and thus become the primary means of knowledge acquisition for EMs. In City L, the cultural heritage of EMs, including ancient scriptures and historical documents, is predominantly preserved within temples (B1, B2 and C4). From a very young age, EMs are immersed in a religious culture, leading them to historically acquire knowledge primarily from temples and monks (C1, E2, E3, F9 and 32 EM interviewees). They are more accustomed to obtaining knowledge and information through interpersonal oral communication, where 'the older generation imparts knowledge to the younger' (43 EM interviewees), and 'masters educate apprentices through direct instruction' (38 EM interviewees).

Thus, the emergence of contemporary public library services as a formal channel for knowledge acquisition creates a divergence from the traditional methods employed by EM residents. This divergence prevents EMs from going through the OPP of establishing library consciousness, further limiting their limited use of library services. Notably, a total of 92 EM interviewees (71.88%) acknowledged the profound influence of Tibetan Buddhism on their cultural traditions. For instance, *Zhaxi* (All names mentioned in this paper have been anonymised), a 42-year-old Tibetan resident, articulated his family's perspective on library consciousness as follows:

My family and I hold deep respect for our Buddhist cultural heritage. Temples are not merely repositories of ancient scriptures; they provide spiritual sustenance and psychological comfort. Therefore, even when libraries are available, we prefer to visit temples for study and prayer. This tradition, passed down through generations, reflects a shared cultural practice among many residents of City L.

In addition to their religious beliefs, the *enrolment* of cultural traditions was reflected in their deep fondness for artistic activities, such as singing and dancing. To satisfy the diverse cultural needs of EMs and mobilise their library engagement, the government officials and librarians in City L have organised diverse recreational events to encourage EM residents' participation. Although the participation and enthusiasm for these artistic activities among EMs are remarkably high (F2, F5 and F7), these activities have failed to enhance the reliance and familiarity of EMs with libraries and other public cultural institutions (E3, E3, F8, F10 and F11).

Improving EMs' education levels

According to the observations of government officials and librarians, EM residents in City L demonstrate a deficiency in reading consciousness (D5 and F8), reading interests (E1) and reading habits (B1). Reading does not hold a central place in EMs' daily lives (A1 and D1), and there is 'a noted difficulty for EM residents in maintaining focus on reading' (D7). Consequently, the location of books becomes 'inconsequential' (B2). EM residents 'remain unread even when books are delivered to their homes' (B2). The concern over 'whether the library lacks the books [EMs need] is thus rendered moot' (D6). Some librarians have acknowledged that 'while they desire to enhance library services, there is a lack of specific requests from EM residents' (E6 and F8).

A small portion of interviewed EM residents (n=23) engage in reading due to 'having developed reading habits during their schooling years' or 'being influenced by their family's culture of reading'. However, reading is regarded as 'requiring a relatively high level of education and knowledge for EMs' by F7 and 13 EM residents, and is seen as 'a sophisticated form of intellectual pursuit for EMs' by A1 and 8 interviewed EM residents. Some EM residents, especially those aged over fifty, are unable to derive pleasure from reading due to a lack of education, which leads to their underutilisation of libraries (E2, E4, E7 and F11). This educational barrier is 'not confined to Chinese language books but also applies to Tibetan language texts' (B1).

My formal education concluded after completing nine years of compulsory schooling in primary and junior high school. My family did not encourage further academic pursuits, so I followed our family's tradition of pastoral living. Reading and using libraries are not common practices in my family, and thus, I have not developed such habits either. (Danzeng, a 34-year-old Mongolian herder whose family has been engaged in pastoralism for generations)

Some of us have the consciousness of using libraries for study or work. During school years, we have the opportunity to engage with school or university libraries, develop a demand for library resources, or receive guidance from our teachers about the importance of libraries. (E6, a 24-year-old female Tibetan librarian who obtained her bachelor's degree from a university in central China)

The above narrative indicated that the nonhuman actor of education level has shown a strong agency in shaping EMs' library consciousness with *interessement*. In the network of actors, education level is connected with EMs' reading habits and recognition of the importance of libraries. Put differently, the improvement in educational level enables EMs to engage in more reading activities that require library resources. Guided by the Chinese belief that 'books contain treasures,' EM residents can recognise the connection between libraries and their interests.

Coordinating with diverse information acquisition channels

The proliferation of mobile Internet has enriched EMs' information acquisition channels. EM residents exhibit 'a strong reliance on the Internet and smartphones, with even children being adept at using mobile phones' (F5 and F7). This preference leads to a tendency among EMs to 'use smartphones for immediate information acquisition rather than visiting libraries' (B2). The mobile Internet makes EMs feel that knowledge is 'easily accessible' (C2, D2, F8 and 34 EM interviewees), because they can 'acquire new knowledge more easily through mobile platforms like TikTok and WeChat public accounts' (C1, F5 and 58 EM interviewees). F4 also noted that mobile tools are replacing certain functions of libraries.

Previously, the traffic police department required drivers to complete their theoretical knowledge study and exams for driving qualifications at libraries, but now this can be done on mobile phones, further reducing the utilization rate of offline libraries. (F4)

To cater to EMs' habits of using mobile devices and enrol EM residents, some libraries have launched online resources (C4). However, the usage of these resources remains low as suggested by some librarians (e.g., F1, F2, F5 and F7). A total of 27 EM interviewees agree that this is mainly because they cannot calm down and focus on the structured library resources. Furthermore, library resources tend to be 'overly systematic' for EMs (A2), necessitating EMs to possess 'robust information processing skills' (C3 and D2). This expectation 'exacerbates the cognitive burden for EM residents, particularly given their typically lower educational levels' (D6).

Besides mobile devices, traditional media like television also serve as important channels for EM residents in City L to access information. Over 90 per cent of EM interviewees have televisions at home and enjoy the leisurely life of watching TV to obtain information while passing the time. Moreover, offline information exchange remains common among EM residents in City L but not in libraries. Several interviewed government officials (e.g., C4, D1, and D2) noted that tea houses are ubiquitous, affordable and cosy leisure spots in the EM community, as well as places bustling with information. A total of 85 EM interviewees mentioned the information exchange mode in the tea house. For example, Ma, a 43-year-old Mongolian interviewee, said,

We spend most of leisure time in tea houses, drinking tea, chatting, or watching TV together. The daily information we obtain through these activities about herding, farming, and handling family relationships is much more useful than what libraries can provide.

In the actor network, EMs' existing information acquisition channels, as nonhuman actors, have attracted EMs by offering convenient information services, thereby establishing stable network relationships. These established relationships may hinder libraries, as new actors, from being integrated into the network, since existing actors strive to maintain the stability of the network (Callon, 1984). Consequently, EM residents lack the motivation to shift their information acquisition habits from current channels to libraries, posing challenges for libraries to pass the OPP.

Improving the economic conditions of libraries

The establishment, operation and maintenance of libraries require substantial financial support. Serving as the fundamental actor in the network, economic conditions significantly impact the quality of library services, which in turn affects EMs' library consciousness. One government official even noted that 'all issues of libraries in City L, [including EMs' lack of library consciousness,] can ultimately come down to funding' (C3). Therefore, actively seeking and effectively utilising local fiscal resources to support libraries is essential for the sustained operation and long-term development of librarianship in City L (C2). The thematic analysis revealed that the economic conditions of libraries in City L have posed challenges for other actors (i.e., government officials, librarians, and EM residents) to pass the OPP in two main ways.

First, insufficient and unevenly distributed financial resources have led to inadequate infrastructure development and limited services in libraries located in EM regions. Many librarians (e.g., F3, F6, F10) pointed out that national financial support for librarianship development in City L is disproportionately allocated across libraries at different levels. While some libraries benefit from additional support through local budgets, library funding remains critically insufficient (B2, E2 and F12). Due to the varying fiscal strengths of different counties and districts in City L, there are significant disparities in investment in libraries, leading to a marked differentiation in library development (A2 and C1).

Although City L is a major urban centre, economic conditions in its remote outlying areas remain constrained. Consequently, libraries in these regions often face challenges in securing the most basic operational resources, making improvements in service quality and resource expansion particularly difficult. (B1)

In economically disadvantaged, geographically remote agricultural and pastoral areas of City L, libraries encounter significant challenges, such as inadequate infrastructure and limited service capacity. (A1)

Second, the limited economic condition of libraries has led to a lack of professionalism among librarians and an inability to shape EMs' library consciousness. Many librarians in City L, particularly those in grassroots libraries, are part-time government officials (E7 and F5). C4 elaborated on the backgrounds of library personnel across various levels in City L:

At the county level, there are only 1-2 full-time librarian(s), with most positions held by officials from the Cultural and Tourism Bureau of City L. At the township level, librarian roles are often filled by government publicity officers or cultural specialists, while village libraries are typically managed by civil servants from the village government. (C4)

The dispersion and inadequacy of librarians have resulted in 'difficulties in maintaining regular operating hours for libraries' (D4). Part-time staff frequently report 'feeling limited in energy' (F3) or 'facing challenges in their work' (C1). During the ethnographic fieldwork, the research team discovered that some libraries have been closed for extended periods due to librarian shortages, requiring advance contact to arrange access.

Discussion and conclusion

Adopting ANT as the analytical framework, this research reveals the interactive relationship and translation process between actors involved in shaping EMs' library consciousness. The identified actors include cultural traditions, education levels, information acquisition channels, economic conditions, EM residents, librarians (or libraries) and government officials (or the government). The analysis is based on qualitative data derived from a one-year ethnographic study conducted in an autonomous city for EMs located in southwestern China.

Compared to previous studies (e.g., Si and Luo, 2020; Wang P. et al., 2023; Zhao et al., 2018) that have applied ANT to analyse established networks, this research utilises ANT to examine a network centred on EMs' library consciousness that has not yet been established. Through utilising ANT, this study identifies both human and nonhuman actors contributing to the weak library consciousness among EMs in City L, and analyses how these actors hinder the establishment of EMs' library consciousness. Despite the absence of an established network centred on library consciousness, interactive relationships and translation among these actors already exist. After passing the OPP, these actors can develop a new network serving the common goal of building cultural networks, strengthening identity recognition and promoting ethnic unity (IFLA, 2009; Kuang et al., 2023). In view of this, the research implicates stakeholders in EMs' library services to take actions to shape EMs' library consciousness.

Among the identified actors, this research positions cultural traditions as the focal actor. This perspective is closely linked to the unique national context of China, where EMs are significant social constituents with unique cultural traditions (Feng Y. and Cheung, 2008; Ma, 2006). The Chinese government and various societal sectors believe they should fully respect and protect these cultural traditions. Thus, other identified heterogeneous actors (e.g., government officials and librarians) cannot intervene in these cultural traditions. Instead, they must adapt and evolve in accordance with their development.

Cultural traditions of EMs, as a nonhuman actor, significantly influence their knowledge acquisition processes. These traditions, manifested through religious beliefs, cultural and artistic activities and lifestyle routines, do not completely align with the concept of libraries as a source of knowledge. As a result, many EM residents fail to recognise the connection between library services and their cultural rights, community wellbeing and socioeconomic development (Zhang Y., 2019). This disconnect leads to a lack of library consciousness among EM residents, who may

view libraries as entities foreign to their cultural traditions. The findings broadly supported Feng T.'s (2013) viewpoints on the stability and continuity of public consciousness, which shape the knowledge acquisition processes of EMs. If libraries and other actors do not effectively translate their values and functions in a manner that resonates with the cultural traditions of EMs, they risk remaining marginalised within the network. To address this, libraries must take action to align their services with the cultural practices and values of EMs and increase their ties with other actors.

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