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P@LICY REVIEW

China to introduce Marrakech Treaty

Visually impaired to get more access to copyrighted reading materials

By FANG AIQING

he visually impaired in China will have better access to reading materials, including foreign texts, as the Marrakech Treaty to Facilitate Access to Published Works for Persons Who Are Blind, Visually Impaired or Otherwise Print Disabled, takes effect on May 5.

The document will become active three months after China delivered its ratification papers to the World Intellectual Property Organization

The only international human rights treaty on copyright currently has 88 signatories, according to the

It imposes a set of mandatory limitations and exceptions on traditional copyright laws to benefit people who are visually impaired, who have reading or learning disabilities or who are unable to hold or manipulate a book. Under the treaty, authorized enti-

ties will be permitted, without the authorization of the copyright holder, to make an accessible copy of a work for exclusive use on a nonprof-

The treaty also set rules on international exchanges to enable foreign texts to be offered in accessible formats to beneficiaries or autho-

China participated in the drafting and advocacy process and signed the treaty on June 28, 2013, when it was adopted in Marrakech. It entered into force on September 30,

In November 2020, the Standing Committee of the National People's Congress, China's top legislature, passed a comprehensive amendment to the Copyright Law after nearly 10 years' preparation, and the revised law was enacted in June last

It added provisions applicable to the treaty, demonstrating that the country had taken a substantial step toward ratification and implementation, said Yang Yang, an associate research fellow at the Assistive Technology Research Institute at the China Braille Press in Beijing and chief author of a report about the treaty's implementation.

For example, the amendment extended beneficiaries of copyright exceptions from the visually impaired using Braille to people with dyslexia and other reading disabilities. It also expanded the number of ways people can benefit, from transliteration and publication of a work in Braille to any accessible

With the necessary legal conditions and institutional preparation in place, the Standing Committee of the NPC ratified the treaty in

As the only publisher of its kind in China, the China Braille Press published about 1,000 books a year between 2016 to 2020, the majority being policy introductions and reviews, and textbooks for compulsory and vocational education.

Other books have included classics of literature and history, bestsellers and Braille scores, Yang said, adding that the publishing house's output only meets the basic needs of the visually impaired due to personnel and financial constraints.

Apart from regular editing, the printing house has to transliterate Chinese into Braille, and proofread-



ing requires the cooperation of both blind and sighted editors.

Chinese Braille is based on pinyin, so a book of around 300 pages and about 200,000 Chinese characters, can end up as thick as three volumes.

Braille books are printed on kraft paper and must be specially packaged for mailing, which makes publishing them costly. Nevertheless, copyright constraints remain the biggest challenge. Ideally, editors are able to convert

Chinese into Braille using transliteration software if they have the Word or TXT files at hand, but more often than not, they are forced to transcribe and input the Braille themselves because publishers hesitate to provide access, due to copyright concerns.

The situation is worse with audiobooks and large-print books, as copyright-holders and publishers are worried that their sales will be

The printing house needs authorization to make these formats accessible. Some publishers, in cooperating with the printers, demand that large-print versions only be made available through libraries and not put on sale, while others refuse cooperation, according to Yang.

The house is also exploring ways to jointly publish audiobooks with copyright holders. For example, while they would

provide the works to the visually impaired for free, their partners would be able to sell them. For audiobooks and accessible

films and TV series that offer scene narration, sign language or subtitles, the house has to purchase the copyright, but limited funds have kept it from accessing the latest audiobooks and movies.

Yang said the treaty has a broad definition of accessible formats that enjoy copyright exceptions, which will likely lower costs for publishing houses as they seek to gain access to more works, and beneficiaries will have more ways to satisfy their needs. At the same time, beneficiaries of the treaty are obliged to protect copyright by not sharing content to reassure copyright holders

She added that the National Copyright Administration is working to formulate implementation rules for the treaty in China.

"I expect the implementation of the treaty will meet our reading needs," said He Chuan, vice-chairman of the China Association of the

He stressed that by definition, the treaty involves not only formal publications, but other materials publicly available in any media.

Visually impaired himself, He is also director of the Center for Information Accessibility at the China Braille Library

He used the challenges visually impaired students with university aspirations face as an example, as they may want to take the national college or postgraduate entrance examinations to attend a regular university, rather than entering the special education system. The implementation of the treaty may make it easier for them to acquire Braille versions of study materials for the exams, he said.

Moreover, Yang suggested that public libraries be authorized by the government to produce and distribute accessible format copies and take measures to guarantee their exclusive, nonprofit use, as is the case in countries such as the United States, Russia and Japan.

The Zhejiang Library, in Hangzhou, Zhejiang province, is one of the rare public libraries in China able to produce Braille copies, audiobooks and accessible movies on their own.

They use character recognition technology and Braille transliteration software to edit and proofread works upon reader request.

The library produces around 20 Braille books and a dozen accessible movies annually to about 50 visually impaired readers who visit regularly, according to Xu Jin, director of the library's stack room management and reading services

Xu said that public libraries should be key resources for visually impaired readers and hoped the implementation of the treaty would shorten the time needed to produce accessible format copies of publications.

He also called on the China Braille Press and China Braille Library to better promote and clarify copyright limitations and exceptions legal boundaries, how domestic law lines up with the treaty, and their experience publishing for the visually impaired.

Policy Digest

Joint effort looks to boost rural investment

The Ministry of Agriculture and Rural Affairs, the National Rural Revitalization Administration and the Bank of China will work together to improve financial services in rural areas to help boost investment, a notice published on Friday said.

According to a recently signed agreement, the three parties will carry out comprehensive, in-depth, pragmatic and close cooperation in areas such as food production, rural development and countryside governance.

Cooperative plans will be formulated for specific tasks, including promoting openingup in the agricultural industry, supporting the development of counties that lag behind in terms of rural vitalization, and promoting urbanrural integration.

The three parties have also agreed to explore the establishment of a long-term cooperation mechanism and look to further innovate in terms of financial products and services that support agriculture, thus accelerating the modernization of agricultural and rural

Furthermore, efforts will be made to promote the integration of policies and capital to attract more financial resources to help address weaknesses in the rural vitalization work and better meet diverse funding needs in agriculture and rural

Guideline focuses on recycling textile waste

China aims to recycle 25 percent of its textile waste and produce 2 million metric tons of recycled fiber by 2025, alongside its goals to reach peak carbon emissions by 2030 and carbon neutrality by 2060, according to a recent guideline.

The document, jointly issued on April 11 by the National Development and Reform Commission, the Ministry of Commerce and the Ministry of Industry and Information Technology, said that by 2030, the country's textile waste recycling system will be refined, with 30 percent of the waste recycled and 3 million metric tons of recycled fiber being produced.

China is the world's leading producer and exporter of both raw textiles and garments.

Some 2.2 million tons of textile waste were produced in 2020, according to the China Association of Circular Economy. Only about 20 percent was reused, and about 1.5 million tons of

 $recycled\ fiber\ were\ produced.$ To improve the recycling system, restrictions on the installation of recycling bins in communities, shopping malls and schools will be removed, and companies engaged in recycling will be encouraged to develop businesses in thirdand fourth-tier cities.

The research and development of technology related to textile waste recycling will be included in key national R&D plans, it said, adding that efforts to make breakthroughs in terms of key technologies and equipment concerning fiber recognition, high-efficient sorting and the separation of blended materials in the waste will be made.

Companies will receive support to carry out pilot schemes to improve the recycling of clothing such as school uniforms.

MO JINGXI

Deaf community lauds positive impact of technology

By FANG AIQING

As Xu Cong, who is deaf, used sign language to express how technology has impacted his life, his phone turned the draft of his speech into spoken text for the audience.

Xu was attending a promotional session in Beijing's Fengtai district about the recent achievements in the effort to build an accessible environment in the city. The April 1 event, which was simultaneously livestreamed, made use of speech-to-text technology that gave deaf audience members another way to follow

The conversion was based on transcription technologies developed by a range of tech companies like iFlytek and Sogou that enahearing-impaired people to

interact with others more efficiently. With these technologies, we gain greater understanding and are able to break out of the cocoon we used to be trapped in," said Xu, the vicechairman of the Beijing-based China Association of the Deaf and Hard of Hearing, via sign language

He added that young, educated deaf people can also take part in online meetings with real-time captioning, and watch TV and make phone calls using apps and hard-ware specially tailored to their

He was referring to the ZimuPlus caption box, which makes it possible for the deaf to watch television news, live shows like China Central Television's Spring Festival Gala and sports through real-time captions, and the i-Clear SIM Card, codeveloped by China Unicom and Tencent, which

helps the hearing-impaired make phone calls using a real-time voiceto-text feature.

According to Yang Yang, chairwoman of the association, both products, released in 2020, are the only ones of their kind because they are not profitable due to the limited size of their target market.

The association participated in the research and development of both products, as well as their pro-

Yang particularly called for wider popularization of the caption box to help more families with deaf people.

"Smart transcription and realtime subtitle technologies are in high demand for the hearing-impaired, as they are crucial to our improvement as a whole," Yang said. talking about technological innovations that have had a huge impact on the community since 2017, when iFlytek first popularized its voice-totext technology. "But we still lack social understanding and support."

Xu pointed out that some technological challenges remain. For example, the accuracy of speech recognition is quite good in Mandarin, but it doesn't do as well with

He said the Beijing Municipal Sci-

ence & Technology Commission and tech companies including Tencent, Baidu, Alibaba and Huawei are developing virtual sign language figures for various uses. He added that he has been working with some companies on this technology.

The difficulty lies in making sign language understandable to a deaf audience. When companies translate text into sign language, it's sometimes inaccurate and causes confusion and misunderstanding.

"We expect our experience and suggestions to be heard during the development of accessible products and an accessible environment, and we hope they will be practical and meet our specific needs," Xu said.