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PUBLISHING BOOKS IN BRAILLE IN UKRAINE: PROBLEMS AND ACHIEVEMENTS

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Annotations. *The features of preparing books in Braille are considered. The problems of providing the blind and visually impaired with inclusive literature and the prospects for the development of the braille book market in Ukraine are analyzed.*

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According to various estimates, there are 80,000 to 100,000 visually impaired people living in Ukraine today, among 10,000 of them are children. The situation with the publication of relief-point books in the country is gradually improving with the efforts of volunteers and philanthropists, but it is still very far from being fully met [1]. That's why the topic of design and publication of books using Braille (especially children's books and for leisure editions), which consist of interesting text (normal and Braille) and tactile graphics, remains relevant.

Every year thousands of Braille books are published all over the world, but only a small part of them goes to Ukraine. This is primarily due to a lack of funds. The cost of printing one book starts from four hundred hryvnias and can reach up to a thousand. Editions in Ukraine usually do not exceed 300 copies [2].

Braille is a writing system in which letters, numbers, punctuation and other symbols are made as a combination of voluminous dots and are read by the touch of fingers. You could say that in some ways it's a coding system. Each letter of the alphabet corresponds to its own unique combination of dots, and, for different languages, the Braille font is also different [3].

In Ukraine, there are no officially adopted standards of Braille writing: there are no standard requirements for the size of letters, for the height of points, for the intervals between dots and strings, and also there aren't any requirements for punctuation. Due to the lack of a standard, many blind people in Ukraine are used to different spelling and punctuation. For example, there can be no spaces between words, punctuation, and capital letters. And this is not a complete list of controversial issues. In most cases, when printing houses use Braille, they rely on the experience of world leaders in this field. The most famous is the Swedish company Index Braille.

Braille is a relief-point tactile font designed for writing and reading by blind people. It was developed in 1824 by the Frenchman Louis Braille, who becomes blind at the age of 15. As a basis he used the "night font" used by the military for reports that could be read in the dark.

In the first two decades of independence, most Braille publications in Ukraine were issued by the Republican House of Sound Recording and Printing, which belonged to the

Ukrainian Association of the Blind (UTOS). It still works, providing literature to 64 specialized libraries of the UTOS system in 56 Ukrainian cities, as also as fulfilling private orders.

In 2016, a volunteer project Braille Studio, the first non-state Braille printing studio, was presented in Lutsk. With the help of patrons managed to raise funds for the Swedish relief-point printer Everest. In the middle of last year, the studio received a new industrial printer BrailleBox V5.

There also is a charitable project "The Book of Braille" of the Nechitailo Family Foundation since 2015. The project deals with the targeted delivery of books and filling of library funds, also in universal libraries [1].

Another example is the Kharkiv Public Organization Rehabilitation Center for Young Disabled Persons and Their Families «Right of Choice», which was registered in July 2002 in Kharkiv. Members of the organization are graduates of Special Boarding Schools, students with disabilities, who lead an active lifestyle and other interested parties. The main goal of the organization is to improve the quality of children's lives and lives of young people with disabilities, to promote their integration into society [4].

One of the main directions of the organization's work is assistance in employment and support of creatively gifted youth, as well as psychological and pedagogical rehabilitation of disabled people, starting from an early age. The partners are public organizations, higher educational institutions, social services of the city. Center «Right of Choice» has a positive experience in implementing social projects for people with disabilities, and it also is part of the city's unified social network. Over the years, about 20 innovative social projects have been implemented for the Kharkiv region and the international level, including an online store of books for the blind and visually impaired and support for the publication of multimedia books.

There is a state program to provide boarding schools for visually impaired children with special, mainly educational, literature. This concludes the functions of the state. Adults are deprived of fiction and literature for leisure. As, however, and children who would be happy to hold in their hands and independently read, for example, "Harry Potter." This mission is taken over by patrons, public organizations, caring people who order literature in Braille. As well as enthusiasts who publish it, but very small circulations.

Indicative is the example of "Typography Madrid", which bought a special printer that allows to make books in Braille. It is one of the few publishing houses not only in Kharkiv, but also in Ukraine, which in addition to ordinary books publishes literature in Braille.

Producing books for blind people requires special techniques and skills. There aren't more than ten printers that "know" to produce such literature today in Ukraine.

There are very few ukrainian books for blind people, even in specialized schools there aren't enough teaching aids. And there is nothing to say about fiction. Unfortunately, there isn't a single publishing house that has adapted such a large volume of text to be printed in Braille [BX].

Printing house "Madrid" publishes books in Braille not so long ago, but on it has already published dozens of interesting and useful publications. For example, for adults

were published: satirical novel "Gargantua and Pantagruel" by Franus Rabelais, "White Fang" by Jack London, collections of poems by Kharkiv poets Nina Suprunenko and Anatoly Pererva, works by Lesia Ukrainka. For children - fairy tales and educational aids. Among the most interesting editions is "Physics" with visual demonstrations of the main physical processes. Equally interesting is the "Big Book of Senses" by Polish author Grzegorz Kasdepke, which is used as a means for corrective work. Blind children have no idea about the mimic, so often can't recognize the emotions of other people and express their feelings.

On September 24, 2020, thanks to cooperation with the NGO Experience of the EU, a private library was opened in Kharkiv. It is a social library that allows visually impaired and blind people to enjoy reading classical and modern literature. The library presents Braille printed editions of Ukrainian and European authors. The library fund is still small - 52 books.

Usually one book, printed in Braille, is a multivolume adapted text - for it is assigned a whole shelf in the library. For example, "Master and Margarita" is a book in sixteen volumes, more than 1,200 pages of adapted text.

There are Braille books in the library published not only in Ukrainian, Russian, but also in English, even English-language fairy tales in Braille (Teremok, Kolobok, Repka).

Most of the copies on the library shelves come from the private collection of Larisa Gobelovskaya, director of the printing house «Madrid». She hopes that in a year the library's foundation would be supplemented with another 30 to 40 Braille books. First of all, these will be books intended for an adult audience. It is planned to focus on historical, local and musical literature. It is also possible to release sheet music. This will appeal to visitors who are engaged in music.

Today, the library functions as a reading room. Anyone can come here during working hours and get a book to read. The more such books will be in the public domain, the more people will come to us, polish the book, read something. From ten o'clock in the morning to five o'clock in the evening any blind adult can come here and take a book, read it, talk to the bibliographer present here about a particular book or literature in general. It also possible to submit an application for a book wanted to read. There are plans to teach sighted people Braille, which will help people get closer to each other.

I want to sum up with the words of Gobelovskaya Larisa: "... I make Braille books. I'm talking about those who want to read but can't do it, because Braille books aren't enough. I want people who have vision problems to be able to read, and that's very important to me." [6] "I would like Braille to become more accessible. We can use it for common cultural development."

Due to ubiquitous computerization, printed books have alternatives - for example, audiobooks, speech synthesizers and interactive books in format DAISY also are audiobooks, but with the ability to search in the text. However, nothing can completely replace the printed book. A child who doesn't read Braille will not be able to learn how to write Braille, and even adults without practice lose their skills.

The Braille system will not be abandoned in the education of children. No alternatives have been offered here yet. Practice shows that there are such texts that are poorly

perceived by ear: mathematical texts with formulas, complex texts with complex turns, sheet music.

In addition, do not forget about deaf-blind people: for them relief-point writing is the only source of information and communication with the outside world.

All these factors determine the rather high requirements for print editions in Braille. A new trend for these books is the use not only text blocks (both Braille and plain text), but also tactile graphics.

The term "tactile graphics" speaks for itself. In short, it is a three-dimensional drawing, which can be felt to the touch. Conventionally allocate two types of graphics: tactile graphics and pseudo-graphics. What is their difference? Pseudo-graphics is only the outline of the picture, the outline of the object, the line of dots. Here the point has only two states: it either has it or it does not exist. The height of the point is unchanged. Its location is always possible to accurately set. The outline of the picture must be closed.

Unlike pseudo-graphics, a full-fledged tactile graphics convey colors using the height of the dot. Different colors are displayed on paper at different points height. Of course, not every color drawing can be turned into tactile graphics. It is often necessary to adapt drawings for their printing tactile graphics. The combination of Braille and tactile graphics further enhances the value of such books for the education and development of blind children.

In modern world, the use of Braille is inevitable. Braille system is an excellent means of rehabilitation or recovery of lost vital abilities in a person who get blindness in the middle of life. The relief-point reading and writing system for the blind remains one of the most important means of communication and access to information, which in the near future will not be able to replace anything else.

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