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For Immediate Release

Paving the Holy Braille Highway

Louisville, KY (March 14, 2022) – Last July, the American Printing House for the Blind (APH) and HumanWare, announced the co-development of a new device that combines the ability to display multiple lines of braille and tactile graphics on the same surface – a Dynamic Tactile Device (DTD).

Since that time, the APH and HumanWare teams have worked on the physical specifications of the device while also discussing the ecosystem which needs to be created to support this new and innovative technology. We are now poised to take the next critical step in developing our multi-line braille and tactile graphics device – establishing a new braille standard that will guide how content is easily navigated.

APH is building a worldwide alliance of groups to establish this new standard. According to Dr. Craig Meador, APH President, “We have learned from those who have tackled this challenge in the past. We’ve seen examples of devices that render tactile graphics and devices that render multi-line braille, and we’ve learned from those trailblazers and the technology they used. For the DTD, it is more than just designing the next braille technology. It’s about creating a highway, an ecosystem, where individuals from across all areas of our field come together to lay the groundwork for the next generation of braille technology.”

The pain points that led to the creation of this new dynamic tactile device are many, but the most pressing need is classroom learning. Today, it can take up to a year to produce a STEM textbook in braille. In addition, transcribing a textbook is not an easy task; the transcription can consist of over 30 volumes of content, with a cost of over \$30,000 to complete that transcription. As a result, many students who are blind begin the year without a textbook, putting them at a disadvantage to their peers. APH wants to remove this barrier to learning by reducing the time it takes to get braille in students’ hands. Thanks to the work being done to build the new eBRF standard, students would receive content significantly sooner and could access classroom materials much closer to the same time their sighted classmates receive them.

Today’s current braille file standard was developed for braille embossers, creating a static file that can be output to create printed braille; however, this standard's applications for a dynamic device like the DTD is limited. Using today’s BRF standard, students can’t effectively jump to sections, chapters, or pages when prompted in a classroom, or take

advantage of other conveniences, like links for footnotes and endnotes. There are also no ways to join braille content and embossed graphics in the same electronic experience.

APH has drafted a proposed electronic braille standard (eBRF) and has been working collaboratively with international braille authorities and organizations such as National Federation of the Blind (NFB), American Council of the Blind (ACB), The DAISY Consortium, National Library Service (NLS), Braille Authority of North America (BANA), International Council on English Braille (ICEB), Royal National Institute for the Blind (RNIB), Austrian Association for the Blind, Duxbury Systems, and National Network for Equitable Library Service (NNELS) for the last several months to seek their input and feedback. This week, at the CSUN Assistive Technology Conference in Anaheim, CA, APH is meeting with representatives of other organizations, continuing to build support for this revolutionary braille standard. While APH is spearheading this work, it is ultimately the braille community that will own this standard.

“The effort that has been undertaken to create an eBRF format for braille reading is truly ground-breaking. With so much braille being read on electronic devices, efficient navigation is critical to the success of electronic braille for students, professionals, and even the casual braille reader,” said Judy Dixon, President, International Council on English Braille.

Gilles Pepin, Chairman of the Board of HumanWare, added, “For a graphical and multiline braille display to be useful for students and professionals, we need to adopt an international file format standard that will enable producers of text books and other complex documents to mark up the text, images, graphics, etc. so we can build interfaces that will make it efficient for users to navigate and find the information they need in the document. This is what APH and partners are proposing with eBRF. And that is exactly what we did 25 years ago when the Daisy Consortium introduced its first digital talking book file format. Simply put, without eBRF, the use of any tactile or multiline table is very limited.”

This new eBRF standard will not only benefit users of the APH/HumanWare DTD, it will also help braille readers everywhere read more efficiently regardless of device. It puts power in the hands of braille readers in a way that was not previously possible. Developing this internationally accepted standard is key, and finding the solution will require a partnership of braille transcribers, braille readers, and braille software and hardware manufacturers.

If you are attending CSUN this week, you can learn more by attending APH’s presentation, *Braille Dots Serving 21st Century Needs*, on Wednesday, March 15 at 1:20 pm PDT.

About American Printing House for the Blind

American Printing House for the Blind is a worldwide leader in designing innovative lifelong learning solutions for children and adults who are blind or visually impaired. In this fast-changing world, we believe in the power and necessity of learning to open the doors to educational success, satisfying employment, social inclusion, active citizenship, and personal well-being. We level the learning playing field by providing specialized technology, materials, products, and services that are essential for education and life. American Printing House for the Blind is headquartered at 1839 Frankfort Avenue in Louisville, Kentucky. For more information, please visit www.aph.org.

About HumanWare

For nearly 35 years, HumanWare's inspirational vision has resulted in the development of more than 50 highly intuitive and intelligent solutions that change the lives of people living with visual impairment and vision loss. From electronic magnifiers to talking GPS to braille devices, HumanWare solutions help all users live independently and participate successfully in today's world. To use at home, in the classroom, or the workplace, HumanWare technology has helped more than 1 million people worldwide to see things differently. Founded in 1988, HumanWare is part of the EssilorLuxottica group since 2013. Through the dedication of its teams and partners in North America, the United Kingdom, Australia, and a worldwide distribution network, HumanWare improves the quality of life for its customers by promoting literacy, inclusion, and accessibility.

About the Dynamic Tactile Device (DTD)

The Dynamic Tactile Device (DTD), is being created through a partnership with HumanWare, a leader in the field of access technology. The device will utilize APH's and HumanWare's vast experience in the development of braille products. The DTD will display tactile graphics, as well as serving as a tactile book reader, combining braille characters and tactile images together on the same screen. Touch sensors will allow for navigation using the same swipe gestures as used on accessible tablets. Dot Inc was selected as the technology vendor for this project.

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