International Council on English Braille (ICEB)

Report of the Technical Subcommittee for the Period June 2022 to May 2024

to the Eighth General Assembly

25-30 May 2024

Clive Lansink

Chair

Technical Subcommittee

My sincere apologies for lateness but it is my pleasure to present my report to this ICEB general assembly as Chair of the Technical Subcommittee.

This committee was formed in 2016 as a subcommittee of the Code Maintenance Committee, to take responsibility for developing and updating the ICEB publication Unified English Braille: Guidelines for Technical Material. I was not involved in ICEB committees but I joined this committee as Chair in March 2022. Obviously this has been something of a learning experience for me.

# Membership

The committee currently has the following ten voting members:

Chair: Clive Lansink

Australia: Jodie Doolan

Canada: Michele Hayes

Ireland: Donal Fitzpatrick

New Zealand: Clive Lansink

South Africa: Francois Prinsloo

UK: David Spybey

US: Donald Winiecki

Special voting member: Matthew Horspool

Special voting member: Phyllis Landon

Special voting member: Joe Sullivan

In addition there are some 107 observers. These people cannot vote but the committee highly values the knowledge and experience they bring to our discussions.

# Committee Business

Following the Mid-Term Executive Meeting in June 2022, the committee has focused on developing consistency in the use of grade 1 indicators, with the intention of significantly updating section 1.7 of the guidelines.

I have to say I did not anticipate just how much work would be needed to hopefully resolve this issue, but essentially we were finding a compromise between two ideals. One is that UEB must be able to handle a wide variety of English language materials which at any time may include mathematical symbols and expressions. The other ideal is that UEB should handle more complex technical materials such as math textbooks, so the meaning and interpretation is efficiently, consistently and accurately conveyed to the reader.

As we worked to clarify the problem to be solved, one theme that came through repeatedly in our discussions was that some people are critical of UEB for having different ways to write the same mathematical expression. I believe UEB should be applauded for essentially being a contracted braille code that can seamlessly include uncontracted braille when needed. This is why UEB has grade 1 indicators for a symbol, a word and a passage. But despite section 1.7 of the Guidelines, it was often left to the braille producer to decide how best to handle a given situation involving technical or mathematical expressions. This seems to have led to inconsistencies of approach. There was a call for clear guidelines on how to handle different kinds of expressions, supported by more examples.

We have not yet taken a formal vote on this, but following lengthy discussions, the essence of the committee's conclusion is as follows:

Technical expressions in braille consist of one or more symbol-sequences. A symbols-sequence is an unbroken string of one or more braille signs, whether alphabetic or non-alphabetic, preceded and followed by space, see RUEB 2.1.

For all expressions:

1. For each symbols-sequence, allow one grade 1 symbol indicator, or use a grade 1 word indicator if more than one grade 1 symbol indicator is required.

2. If the symbols-sequence contains words, allow two grade 1 symbol indicators where doing so will result in the words appearing in their usual contracted form.

3. However, use a grade 1 passage indicator (with grade 1 terminator) if the entire expression contains three or more symbols-sequences which require either one or two grade 1 symbol indicators or a grade 1 word indicator. Begin a grade 1 passage at the start of the technical expression and place the grade 1 terminator at the end of the last symbols-sequence in the expression. The terminator follows any punctuation even if not part of the expression itself.

There are a number of supporting notes that I have not included here, and the committee has a wealth of examples to illustrate how to handle many different situations. It is hoped that once integrated properly into the Guidelines, this will significantly improve the consistency and readability of UEB when handling a variety of texts.

We express our appreciation to UKAAF for sharing their initial work on developing stronger guidelines for the use of grade 1 indicators, and for updating their proposals in response to the initial discussions of this committee.

I have asked braille producers to try applying these guidelines to situations they come across, so we can see the practical effect before a vote is taken.

The committee has now turned its attention to addressing the rule which states that a space should be inserted between a function and a lower case variable, even though this is not needed between a function and other expressions.

# Other Issues to Resolve

The following charges are on the list for this committee to progress:

CM-18: Symbol for the natural join used in relational algebra.

CM-21: Revise Guidelines for Technical Material. Determine whether the new version will replace Section 11 of the Rulebook or be published as an Appendix. Consider overlap with signs listed in Section 3, General Symbols and Indicators.

CM-23: Three symbols were approved by Committee 2 and included in the Reader Rules (RR) but are not listed in the Rulebook or the GTM. (They are in the Symbols List.) Determine whether to retain them and where to list them.

CM-27 CM-F: Clarify use of capital indicators in technical material

CM-B: Various math symbols with suggested assignments

CM-E: Address problem of adding a space before letters following a function

CM-P CM-H: Establish a rule/guideline for the division of computer material (particularly in-line material) between braille lines and determine whether a line continuation indicator is required.

# Conclusion

I regret that unexpected obligations arising last year from another role I have, meant I was not able to give this committee as much attention as I hoped. But that situation is now behind me and I will be able to give more time from now on to help this committee do its work.

I believe our work will ensure UEB will continue to handle mathematical and technical expressions that appear in everyday texts, while at the same time extending the code to efficiently handle a wide variety of complex technical materials.