

Henry is in the common room. In front of him on a table are sheets of paper with writing on them.

Edith enters.

“Hello Henry.”

“Hello Edith. I’ve just thought of a new idea in relation to localizable sentences, just for some of them, not for all of them.”

“Ah. I’ll get a cup of peppermint tea and then perhaps you can explain it to me please.”

Edith goes to the peninsula unit in the corner and prepares a cup of peppermint tea.

Edith returns, carrying a cup of peppermint tea, sits down and then places the cup of peppermint tea onto a table beside her to cool a little before she drinks it, though not placing it on the table upon which Henry has his sheets of paper, just in case she accidentally spills the peppermint tea.

Edith looks attentively toward Henry.

“Well, as you know, many of the localizable sentences do not have a symbol, they are just recognised by the code points of the constituent sequence of characters. If there is not automated localization, or if automated localization is turned off, then the display defaults to a display of the glyph for the base character followed by displays of the visible glyphs for the tag characters.”

“Yes.”

“Yet some localizable sentences do have symbols. Some of those are for historical reasons before the present encoding using a sequence of a base character and some tag characters was used. Yet some localizable sentences, including some recent ones, do have a symbol so that they can be used as signs so that people can understand a meaning through the language barrier.”

“Yes.”

“But that does need a person looking at the sign to know what the symbol means, or to be able to look it up using a pocket guide.”

“Indeed.”

“It occurred to me that if those symbols that are intended to be used as printed signs each had a QR code within the glyph, then that would mean that the symbol could be scanned using a mobile device and the localized meaning obtained automatically.”

“How would that work?”

“Well, the symbol glyph would be specified precisely including the bit pattern of a QR code that encodes the code point of the symbol.”

“Or the code points of a sequence of a base character and some tag characters?”

“Well possibly, with carefulness. The thing is that, in a general chunky way, the more information that is in a QR code, the more bits need to be used in the QR code. So the larger the sign needs to be for reading by the mobile device. So we may need to encode with a short sequence of tag characters so as to keep the QR code to the smallest possible size if we can.”

“I understand what you mean. Maybe a distinctive first tag character so as to allow shorter codes for these particular localizable sentences that include a QR code within the glyph design?”

“Yes, possibly, the idea needs some development.”

“What happens if the glyph in the font, the glyph including a QR code, is displayed at a small size in a mobile telephone message or on a computer screen?”

“I thought about that. I think that - the main part of the symbol would appear distinctly, yet the QR code part of the glyph may appear as some sort of bitty pattern.”

“Ah.”

“There could possibly be advanced typography to substitute a simpler glyph at smaller sizes, but I am a bit wary of that as the idea would be to have a standardized glyph design that always has the QR code information stored within it, so that if the point size of the display is increased then the QR code becomes available for use. So that issue would need to be considered.”

“Yes. However I like the idea of a glyph that is a symbol that can be recognised easily by a human yet also contains within it a QR code of the character encoding information.”

“Thank you.”

“If such a symbol were being used as a sign, then the human would notice the QR code but would not understand its content, so it would just be ‘a QR code’ and the mobile device would probably not recognise the main human-oriented part of the symbol yet could decode the QR code. Once the mobile device has the code number, it could then display, or speak, or both, the localized text that the symbol represents. If the mobile device does not have localized text for that symbol then it could display the code number so that as a backup method the symbol and its meaning could be looked up in a hardcopy printed list arranged in numerical order.”

Edith is impressed.

“Henry, this could be an important development. Please continue with researching it when you can.”

“Yes, thank you.” replies Henry.