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|  |  | | | | **JCA-AHF** |
|  |  | | | | **Original: English** |
| **Question(s):** | | N/A | Geneva, 26 October 2022 | | |
| **DOCUMENT** | | | | | |
| **Source:** | | G3ict | | | |
| **Title:** | | A Bot Topic: Debate continues over the role of AI interpreting has in BSL access industry | | | |
| **Purpose:** | | Information | | | |
| **Contact:** | | Christopher Jones G3ict UK | | E-mail: acceque@btinternet.com | |
| **Contact:** | | Andrea Saks G3ict USA | | andrea@andreasaks.onmicrosoft.com | |

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| **Keywords:** | Bot; AI; BSL – British Sign Language; Avatar; WFD – World Federation of the Deaf; EFSLI – European Federation of Sign Language Interpreters; NUBSLI – National Union of British Sign Language Interpreters |
| **Abstract:** | Concerns from the WFD, EFSLI and NUBBSL over the quality of avatars and how they can be used in access industry. It is seen not to replace human sign language interpreting. It is a choice which may not be easy for some Deaf people to make. It is proposed to make a new work item on this topic. |

# Introduction

A debate continues over the role of AI interpreting has in BSL access industry. Concerns from the WFD, EFSLI and NUBBSL over the quality of avatars and how they can be used in access

industry. It is seen not to replace human sign language interpreting. It is a choice which may not be easy for some Deaf people to make. It is proposed to make a new work item on this topic. Permission has been sought and given from Liam O’Dell for the following article to be used for this contribution. There is a weblink to YouTube on Twitter that needs to be viewed.

Please view the video clip. <https://twitter.com/i/status/1567099841674715136>

# Discussion

A conversation around artificial intelligence’s place in the British Sign

Language (BSL) interpreting profession is continuing to develop, sparking

difficult and contentious issues around ethics, interpreter numbers and

sustainability.

In his latest feature for The Limping Chicken, Liam O’Dell investigates what

role – if at all – bots and AI could play in the future of interpreting.

“Hello, I’m Cassie, [a] BSL interpreter helping the Deaf community,” signs the

avatar. It appears to me in a video on my Instagram feed earlier this month,

and naturally piques my interest. It’s from the company Robotica, and is an

artificial intelligence solution to British Sign Language (BSL) interpretation.

Of course, AI has the potential sparks a wide range of scepticism – from the

existential and apocalyptic prophecies a Terminator-like machine wiping out

humanity, to the more current concern around its intrusion into modern

industries such as retail and e-commerce. It was only a matter of time before

such a conversation would arrive at its place in the interpreting industry.

A significant intervention came in 2018, when the World Federation of the

Deaf and the World Association of Sign Language Interpreters expressed

concerns around signing avatars  in a joint statement .

“Computer-generated machine translations cannot render culturally

appropriate translations as would be provided by live interpretations from a

human sign language interpreter,” it reads. “Work in this field has seen great

improvements with the image quality and appearance of signing avatars.

“Whilst the technology has progressed and offers real potential for wider use

of signing avatars, these computerised products do not surpass the natural

quality and skill provided by appropriately trained and qualified interpreters

and translators,” it continues. “Individuals who are fluent in a signed language

and qualified to present information on particular subjects not only use the

hands, arms, shoulders and torso, movements of the head, facial expression

and mouth patterns, but also include cultural information where necessary to

convey the intended meaning contained within a message.”

Over email, Robotica’s founder Adrian Pickering is honest in his assessment

of AI’s future in interpreting. “Humans will always be preferable,” he writes.

“Artificial intelligence will never offer empathy and trust.  Nobody wants a

computer reading their medical diagnosis or explaining a legal ruling.

“Only when either no human signer is available, or when human signing is not

feasible, should our AI signers be used,” adds Pickering. “We do not ever

foresee a time when AI will replace human translators and interpreters.”

Though at the same time, the low number of interpreters is no secret, and to

many, it could certainly be higher. The current registration figures listed on the

website of the National Registers of Communication Professionals working

with Deaf and Deafblind people (NRCPD) states there’s only 1,391 sign

language interpreters on its register in the UK.

“Few are media trained and fewer still are willing to be on television,”

Pickering continues. “Those translators are working flat out, and demand is

increasing.

“We talk frequently with just about all the UK’s major TV companies, and they

really do desperately want to put BSL everywhere – just as they are with

subtitles – but they just can’t find enough people,” he says. “This means that

only a small amount of television is being translated. It also limits which shows

are offered.”

According to Pickering, AI signing using an avatar offers up new possibilities.

“For example, AI can sometimes make translations easier to follow. We can

produce digital signers that look like the characters in movies or dramas,” he

explains, “or have avatar clothing that changes colour according to which

character is speaking – just as often happens with subtitles.

“We are not asking people to choose between human and AI translations.

Why would we? Humans will win every time,” stresses Pickering. “We are

offering people a choice between AI translations and subtitles. A choice

between AI translations and no translations.”

A choice which may not be easy for some Deaf people to make. For Belgian

academic Dr Maartje De Meulder – who just a few weeks ago gave a

presentation on machine-based interpreting to the European Forum of Sign

Language Interpreters (EFSLI) – there is what she describes as a “critical

need” to answer some “urgent questions”.

“Who invents the technologies, and what is their motivation for developing

them? How are data being collected to make machines learn? Who evaluates

the outcomes, and how,” she writes in a 2021 paper on the ethics of sign

language technologies published by the Association for Machine Translation

in the Americas. “Is there an actual demand from the communities? Who are

the end users and who decides that? Who benefits from these technologies,

and who is at risk of being left behind?

“What are the current and potential future applications of those technologies,”

Dr De Meulder continues. “How will language rights keep pace with the

development of language technologies? What are the ideologies behind these

technologies?”

It’s this last question which the researcher underscores in the document’s

conclusion. “What has been done technologically so far is very promising,”

she writes, “but if continued on the same path, there is a risk that technologies

developed in the end will not be voluntarily adopted by end users. This uptake

in use is important, because the more ‘we’ use AI, the better it will become.

There must be a consideration though of who this ‘we’ is – who is the

language technology for, and why?”

Sign language interpreters certainly aren’t the ‘end users’ here, argues Dr De

Meulder.  “Nor should they be seen as the benchmark for language use.

Placing interpreters on the centre of deaf peoples’ lives (a constructed

dependence) comes from a biased and hearing- centred view on

communication.”

They are, she explains, deaf people, and calls on developers of new sign

language interpretation technology to include a “widely varied group” when

co-designing such software.

The National Union of British Sign Language Interpreters (NUBSLI) also

mentions the end user in their response to a request for comment. “Ultimately

it is for those end users to decide whether or not they want to use it,” they

write. “We would welcome the use of AI in appropriate settings where it might

enable improved or more widely available access for deaf communities. The

emphasis here would be on appropriate use, for example, at train stations or

in other settings where an AI could be used to provide announcements to deaf

travellers.

“Any concerns we might have about the use of AI in our field would primarily

be around the potential effect on the ongoing viability of our profession, our

members terms and conditions, and the knock-on effect that any detriment to

these areas would have on deaf communities,” NUBSLI goes on to add. “If AI

is eventually deployed as a means to replace human interpreting and

translation, or to provide a cheaper alternative that drives down fees in the

industry, we would expect to see numbers in the profession plummet as the

career becomes less and less sustainable.

“Ultimately this would harm deaf communities and users of our services, and

we would always work to avoid this as much as possible, with the means at

our disposal,” their statement concludes.

In the age of subtitles glasses and sign language gloves, new AI tech could

soon be added into the mix. As for the part it plays in the community and the

debates it will spark, there are – as of yet – no clear signs.

# Conclusion / Proposal /Proposals

\_\_\_\_\_ There are some salient points arising from this article. These are:-

1. Video of Cassie who is an avatar (bot). The quality of the avatar’s

expression is debatable. The movements are somewhat crooked

and lacking facial and body expressions. There is an issue where AI

companies are pushing for sign language avatars without

consultation with the sign language Deaf community.

2. This is exemplified by the concern of World Federation of the Deaf

(WDF).

3. Similarly there are concerns expressed by European Sign

Language Interpreters (ESLI) and The National Union of British

Sign Language Interpreters NUBSLI).

4. “Ultimately it is for those end users to decide whether or not they

want to use it,” This is debatable as it depends on the quality of the

avatar’s output. Therefore a standard may be needed?

5. NUBSLI goes on to add. “If AI is eventually deployed as a means to

replace human interpreting and translation, or to provide a cheaper

alternative that drives down fees in the industry, we would expect to

see numbers in the profession plummet as the career becomes less

and less sustainable. “Ultimately this would harm deaf communities

and users of our services, and we would always work to avoid this

as much as possible, with the means at our disposal,” their

statement concludes.

6. Lack of standards.

It is proposed to initiate a work item into this topic.

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