Enhancing Sri Lankan Tourism: Addressing Linguistic Barrier under the Aegis of QR Technology & Machine Translation

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Abstract. Tourism is rapidly expanding due to its economic significance. Unfortunately, current Sri Lankan tourism is one step forward and two steps back. An escalating economic crisis is harming tourism, a significant source of income that had just begun to recover after three difficult years. Therefore, now is the right time to boost up and, despite all the negative impacts on the Sri Lankan tourism sector, pitch in with QR technology to assist tourists in searching for destination information and using AI-driven machine translation to avoid the language barrier. To discover fascinating locations, Sri Lanka still uses the old-fashioned way of giving printed guidebooks. Therefore, tourists may have conflicts during their visits. It is more appropriate for travellers when there is a QR code placed in a scannable location to provide the tourists with more details about the destination, making it easier for foreigners who do not speak the local language to obtain information. The information is provided in either text or audio format by a virtual assistant, allowing tourists with disabilities to enjoy their trip without any hesitation. When the displayed QR code is scanned, the traveller is directed to a web page that contains the information. QR technology is becoming more available to the public, this study includes how to utilize QR codes, the flexibility it provides travellers, and the sustainability of using multilingual content with the aid of neural machine translation, which involves automatically translating words and phrases from the source language into the targeted language. Since natural languages contain intricate grammatical rules, an attention mechanism is placed between the encoder and decoder; therefore, during the translation, the sentence is encoded into a machine-understandable vector, and the decoder provides the proper translation.

Keywords: QR technology, neural machine translation, the language barrier.