Contribution ID: **103** Type: **not specified**

HUMAN-IN-THE-LOOP STRATEGIES IN MACHINE TRANSLATION –CHALLENGES, TRENDS, AND FUTURE DIRECTIONS: A CASE STUDY AT APD

Abstract:
Machine translation (MT) has advanced significantly with the development of neural architectures, yet challenges remain in ensuring contextual accuracy, cultural appropriateness, and domain-specific precision. To address these issues, human-in-the-loop (HiL) strategies have emerged as a hybrid approach that integrates human expertise into automated translation pipelines. This study investigates HiL strategies through a case study, highlighting their role in improving translation quality, enhancing user trust, and supporting low-resource languages. The analysis identifies key challenges, including data scarcity, the cost of human intervention, and ethical concerns such as ownership of translation data. Current trends point to interactive and adaptive MT systems, reinforcement learning from human feedback, and the increasing use of collaborative crowdsourcing platforms. Based on the case study, this paper proposes future directions for HiL machine translation, including optimizing translator-system interaction, expanding applications to domain-specific contexts, and establishing ethical frameworks to guide sustainable development. Findings suggest that HiL strategies are crucial not only for improving MT performance but also for ensuring inclusivity and human-centered AI in multilingual communication.

Từ khóa

Human-in-the-loop, machine translation, post-editing, interactive MT, ethical frameworks

Thông tin các tác giả

TS. Nguyễn Thị Nương, đang giảng dạy tại Học viện Chính sách và Phát triển, Khu đô thị Nam An Khánh, An Thượng, Hoài Đức, Hà Nội.

Author: NƯƠNG, Nguyễn Thị (Academy of Policy and Development)

Track Classification: Tiểu ban 1: Những tiến bộ và thành tựu mới trong lĩnh vực Ngôn ngữ học Tính toán