

Promoting and Preserving Philippine Culture and Languages through Language Technologies

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Abstract

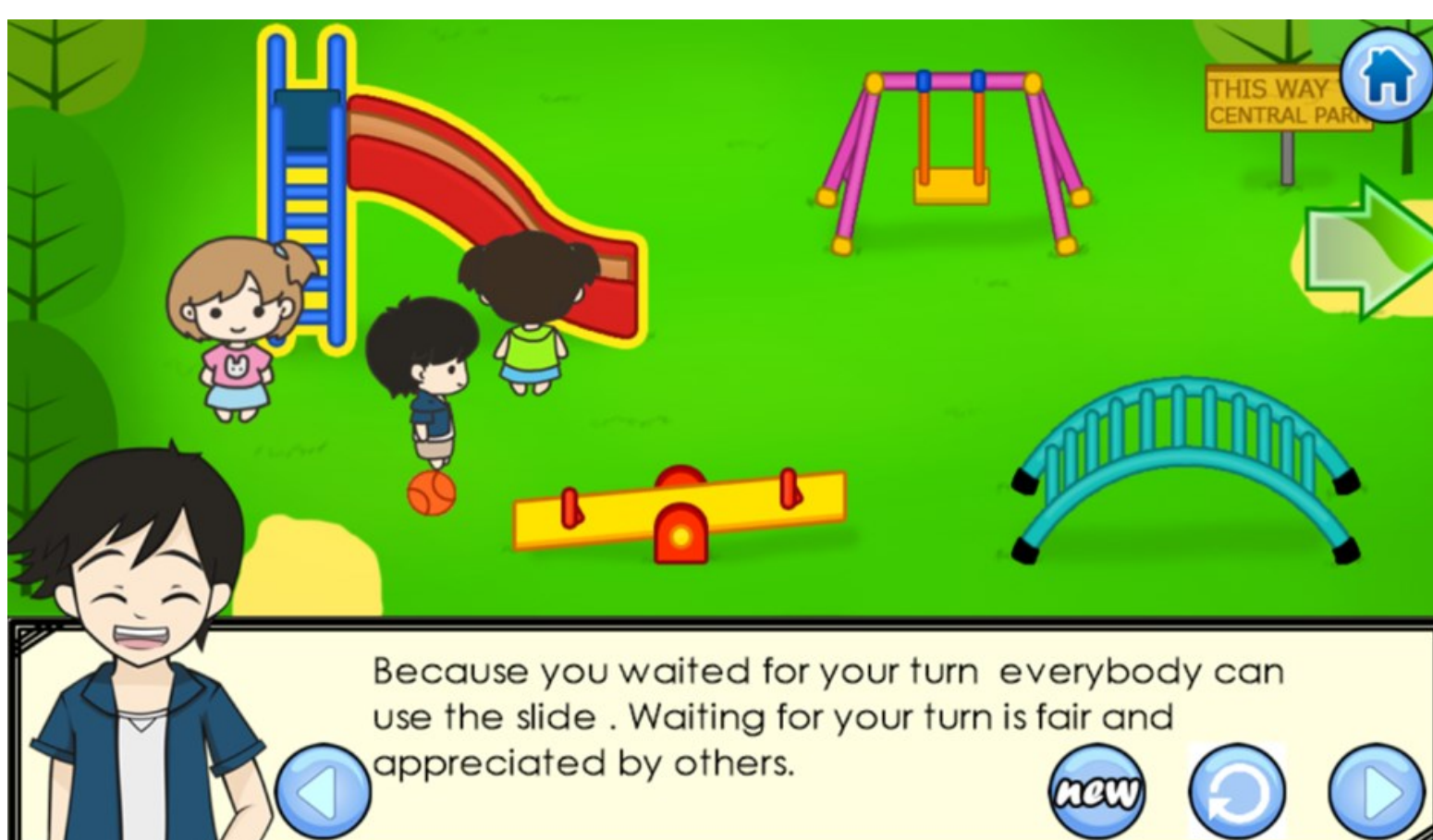
Advances in language technologies have enabled the computational representation, processing and generation of human languages that gave computers the ability to analyze varying text and participate in human conversations. Digital resources such as lexicons and textual corpora led to the development of intelligent agents that can perform tasks in language translation and generation, sentiment analysis, fake news detection, text mining, and knowledge acquisition for ontology population. We present our varying works in preserving and promoting the Philippine culture and language through computer-generated stories and descriptions of museum artifacts, extraction of relevant information to populate an ontology of Philippine medicinal plants, and analysis of bilingual social media posts to detect public sentiments and monitor public health.

Stories and Language

- Stories are the means by which we can propagate our language, culture and values
- Stories are inherent in everyday human conversations to entertain and to exchange knowledge
- Automatic Story Generators can transform an input picture story into text that can be read by children



- Interactive Storytelling encourages children to actively participate in the flow of the story events through decisions they made in the story



- Shared Storytelling affords spaces for children to collaborate with others, including conversational agents, in constructing stories, sharing their concerns, and expressing themselves through their stories



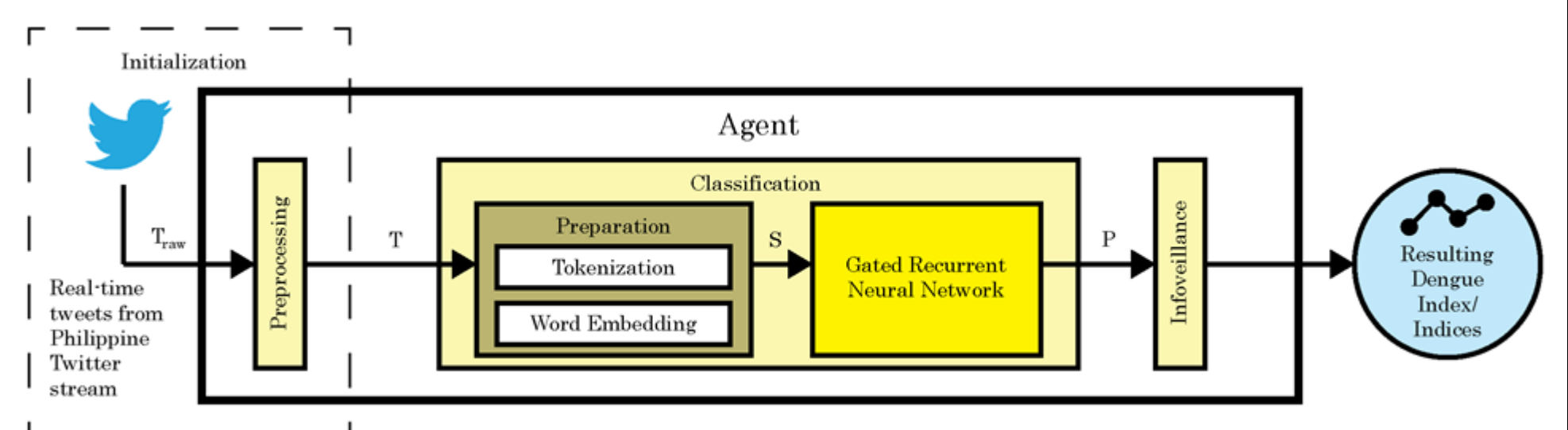
Museum Artifacts

- 2D panoramic view of a Philippine museum in Vigan
- Computer-generated description of artifacts from the Padre Jose Burgos, Crisologo, and Syquia Museums
- Descriptions are adapted to the visitor's interest, age, and visit history



Social Media Posts

- Processing of social media posts and tweets written in bilingual languages for Infoveillance of dengue incidence



Fake news detection

Dialogue act classification

