PURDUE INNOVATES | Office of Technology Commercialization

Spanish-English Menu Translation for Handheld Devices

A novel machine translation system utilizes an organized database of food entries to provide accurate, internet-free menu translation, enabling safe dining choices for travelers with dietary restrictions.

Many people who travel to foreign nations utilize machine translation (MT) devices to translate text or speech from one language to their native tongue. Text in restaurant menus is commonly translated with handheld MT devices that are connected to the internet.

Purdue University researchers have developed an improved technology that facilitates the Machine Translation of restaurant menus. In this, they have created a graphical user interface (GUI) that sends text to a statistical machine translator (SMT). The SMT determines possible translations of a word. These translated words are then used to find similar ingredient and dish entries, which are then stored into an organized database of groupings accessible by the user, through the GUI. This data storage system allows for menu text translation without internet connection and gives foreign diners the ability to select desired foods with accuracy. Moreover, this device allows travelers with food allergies or those that follow a specific diet to safely choose a dish within their individual eating constraints.

Advantages:

-Menu translation without internet connection

-Foreign diners can select desired foods

-Travelers with food allergies or specific diets can accurately select

Potential Applications:

-Restaurant apps

-Travel apps

-Food and nutrition

Technology ID

65534

Category

Agriculture, Nutrition, & AgTech/Food Safety & Traceability

Artificial Intelligence & Machine Learning/Natural Language Processing & Generative AI

Authors

Mireille Boutin

Edward Delp III

Albert Pozo

Further information

Joe Kasper

JRKasper@prf.org

Nathan Smith

nesmith@prf.org

View online

TRL: 4

Intellectual Property:

None