

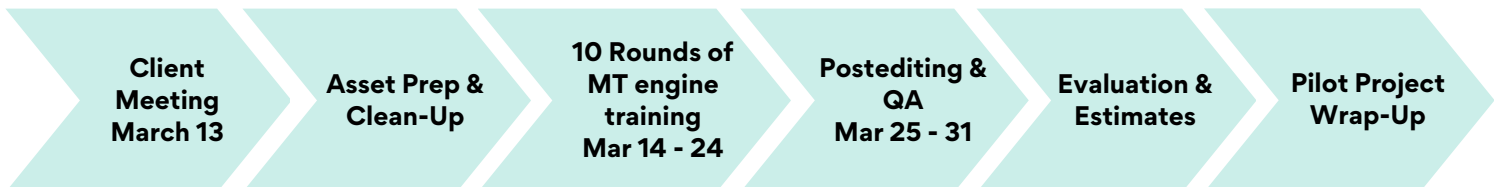
# PILOT PROJECT PROPOSAL

## Project Objectives:

This pilot project aims to estimate the work involved in training a neural machine translation (NMT) engine for translating strings on Disney maps and websites at the Walt Disney World location from the source English (EN-US) to Simplified Chinese (ZH-CN). Post-editing Machine Translation (PEMT) should meet the following requirements:

1. Efficiency: PEMT 30% faster than human translation (HT: \$0.20USD/word)
2. Cost: PEMT 30% cheaper than human translation
3. Quality: Our goal is to ensure that park guests who arrive go to Disney World have an enjoyable experience. We are testing quality on two different metrics. One is a quality model to ensure that the machine translation meets our stringent quality standards for Disney, the other quality metric is a human evaluation, can someone use the Chinese map, to effectively get around the park. This will show that our machine translation is usable for humans.

## Timeline:



## Process:

- **Asset Preparation & Clean-Up:** Collect bilingual strings from Disney website, align segments in SDL Trados, and perform text clean up in Okapi Olifant
- **MT Training (10 Rounds):** Use training, tuning, and testing data in Microsoft Custom Translator. Analysis each round via BLEU scores.
- **Postediting & QA:** Perform PEMT on 2000 word sample group. Use Quality metrics and track time and costs.
- **Evaluation & Estimates:** Implement human and automatic evaluation of PEMT. Compare PEMT sample group quality, efficiency, and cost against those of human translation. Prepare final analysis and breakdown of project.
- **Wrap-Up:** Conduct Pilot Project Post-Mortem, Cost to Savings Ratio, and update proposal.

## Dataset:

- Training Dataset - The Tokyo Disneyland, Hong Kong Disneyland, Shanghai Disneyland websites, DisneyWiki for characters and official translations
- Tuning Dataset - Attractions that are the same across all Disney parks
- Testing Data - Attractions that are exclusive to Disney World (Magic Kingdom)

## QA Metrics:

Type:	Minor	Major	Critical
Abusive	x	x	20
Accuracy	1	5	10
Terminology	1	5	10
Style	1	5	10
Mistranslation	1	5	10
Untranslated	1	5	10
Consistency	1	5	10

## Evaluation:

**Human Evaluation** - Even if the translation meets our quality standards it's vital to have a human attempt to use these maps. Our first human evaluation test would be to give a Chinese speaker our map and have them navigate around the park using google maps.

## Costs:

Task	Hour(s)	Price (USD)	Total (USD)
Data Collection & Cleaning	15	\$40.00	\$600.00
DTP	3	\$60.00	\$180.00
Glossary Creation	3	\$40.00	\$120.00
MT Training Rounds	20	\$200.00*	\$200.00*
Post-editing	3	\$40.00	\$120.00
QA	2	\$20.00	\$40.00
		Total	\$1260.00 USD

\*This is a one time fee to account for the time the MT engine training runs in the background.

## Deliverables:

Once the pilot project has been completed we will receive the following deliverables.

- Details on the data used in training
- Details of all the BLEU scores
- Results regarding the results of the human evaluation
- Updated proposal based on the results of the pilot project analysis

**Team Members Signing Off on Proposal: Nicholas Niculescu, Emilia Primavera, Dayna Brown**