

Natural Language: 'A tool for translating from English to Irish'

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Background and Motivation

Four million people spoke Irish in **1840**. As of 2016, **1,761,420** people speak Irish in the Republic of Ireland. It is now recognised as a **minority language** in Northern Ireland, with only **4,310** people using it as a 'main home language'.

The Irish language has become an **under-resourced** language, which makes it difficult to develop a machine translation for it. On top of that, Irish is a minority language in the EU, it's at **risk of being left behind**.

Aims and Objectives

My **aim** for the end of this is to create a **tool** that will **translate** English to Irish.

Objectives:

- Find out what's better; **statistical machine translation** or **neural machine translation**.
- Develop a better **understanding** of machine translation.

Methods

I will be developing this tool using **Python** and **Pytorch**.

I will be using a **neural network** for my Irish translating tool.

Why am I using Pytorch?

Pytorch uses **automatic differentiation**, which is an ideal method to use when building a **neural network**.

Work Done and Future Work

Currently in my literature review, I have covered topics such as **Statistical Machine Translation, Neural Networks, Shannon's Noisy Channel** and **Bayes' Theorem**.

On the coding side, I have found a parallel corpus, however, it needs to be cleaned.

In the future, I would develop the translating tool to become more user friendly (GUI).

Dúnta Ina Nà Leabhar Crann
Slán Úil tá Ina Silín Féach
Go raibh maith agat
Dia Duit Bò Hata
Rothar Beag Mór Brat ag sláinte
Madra Cearc ní
Tíogar Oscailte

Hello! I'm cloda, the Irish translator. I was created by Shannon Heffernan.

Dia dhuit! Is misé cloda, is aistritheoir Éireannach mé agus Shannon Heffernan a rinne mé.

