

LOST ENGLISH



GENERATING WORDS THAT WEREN'T QUITE

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A WORD THAT WASN'T

frith, *n.*

/fɹiθ/

The act of asking; questioning.

Middle English **freth**, *Old English* **fregthu**.

From Proto-Germanic **fɹexθu**, *PIE* ***prek̑** (*ask*) and suffix **-tu** (*abstract noun*). *cf.* *Latin* *precor*, *Scot* *frain*.

A word that could have been in English
(derived from PIE, like most other English words)
but for whatever reason, was dropped before it
made it all the way to modern English...

But we can recover it via
the regular rules of sound change



TWO MORE

yimidge, *adj.*

/jaɪ.miʒ/

Wintry.

Middle English ymidge, Old English ymiza.

*From Proto-Germanic **ymiza**, PIE *ǵ^hyem (winter) and suffix -iko (adj). cf. Latin heims, Sanskrit hīma*

swifther, *n.*

/swif.θɪ/

An aid to sleep; treatment for insomnia.

Middle English swefther, Old English swefthra.

*From Proto-Germanic **swefθra**, PIE *swep (sleep) and suffix -tro (instr. n.). cf. Latin somnus, Welsh hun*

These are fun but labor-intensive to run through all the sound changes by hand. Is there a better way???



PIEBOT

- ❖ PIEbot is a simple python package designed to take Proto-Indo-European roots and suffixes and generate modern English words, along with a guess at their spelling.
- ❖ Caveat: this is NOT a work of scholarship!
 - ❖ It can't be — these aren't real words after all
 - ❖ Not all sound changes are known, studied, or systematic. The program only models systematic sound changes

```
swiphther  
/swifθɪ/  
Middle English swe:f  
From Proto-Germanic  
Sleep + Instrumentiv
```

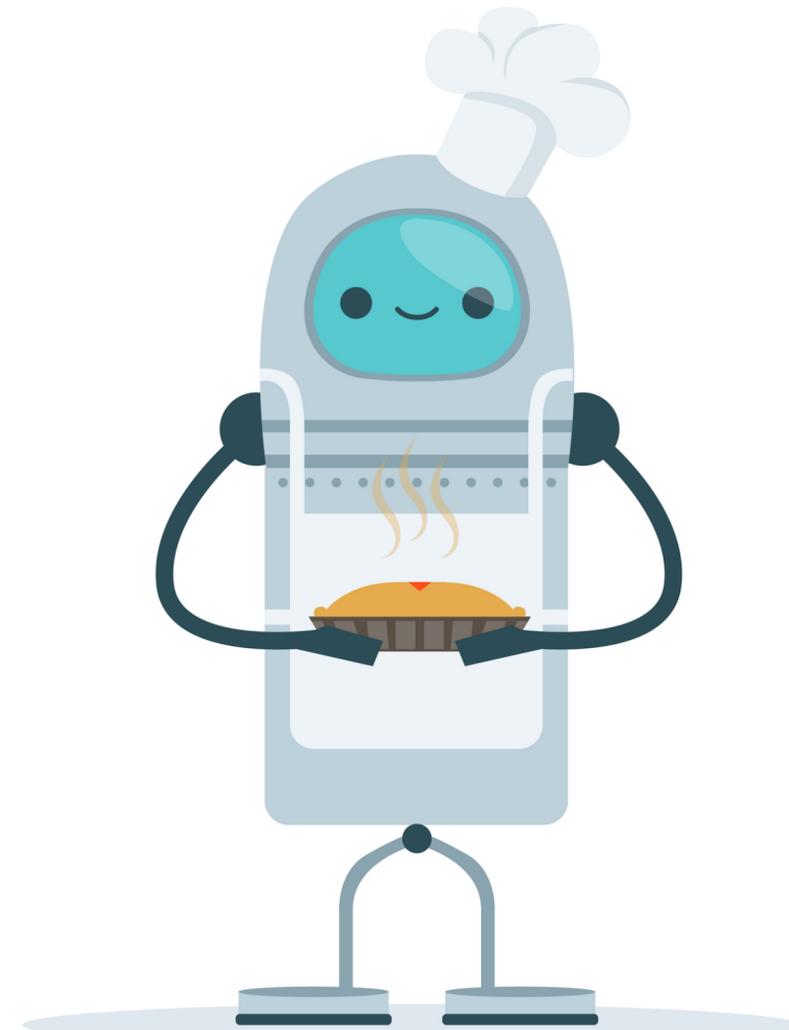
- ❖ Useful for:
 - Alternate history
 - Historical fiction
 - Good clean fun

SOURCES

- ❖ Proto-Indo-European roots and suffixes were downloaded from Wiktionary and the *American Heritage Dictionary of Indo-European Roots* (Watkins, 2011)
- ❖ Sound changes from PIE to modern English were drawn from *A Concise History of English* (Chamonikolasová, 2014)
- ❖ The Wiktionary data was downloaded and cleaned
- ❖ PIE suffixes and sound changes were entered and coded up by hand

PIEBOT INPUTS

- ❖ Proto-Indo-European roots and suffixes (with meanings, cognates, and pronunciations)
- ❖ English spelling generation model file (p2g)
- ❖ Phone mappings from IPA to XSAMPA (an ASCII representation of IPA)



PIEBOT OUTPUTS

- ❖ Modern English spelling and pronunciation
- ❖ Derivation through Proto-Germanic, Old English, and Middle English
- ❖ Approximate / suggested meaning
- ❖ Any known cognates in other languages



PIEBOT OPERATIONS

1. Proto-Indo-European roots and suffixes and spelling model are read into memory
2. If the user has requested a suffix, it is combined with the root before processing
3. Sound changes are applied step by step (usually with regular expressions, sometimes hard coded)
4. Spelling is generated
5. Output printed

```
$ python piebot.py -r "ask" -s "tu"
```

```
frith  
/fɹiθ/
```

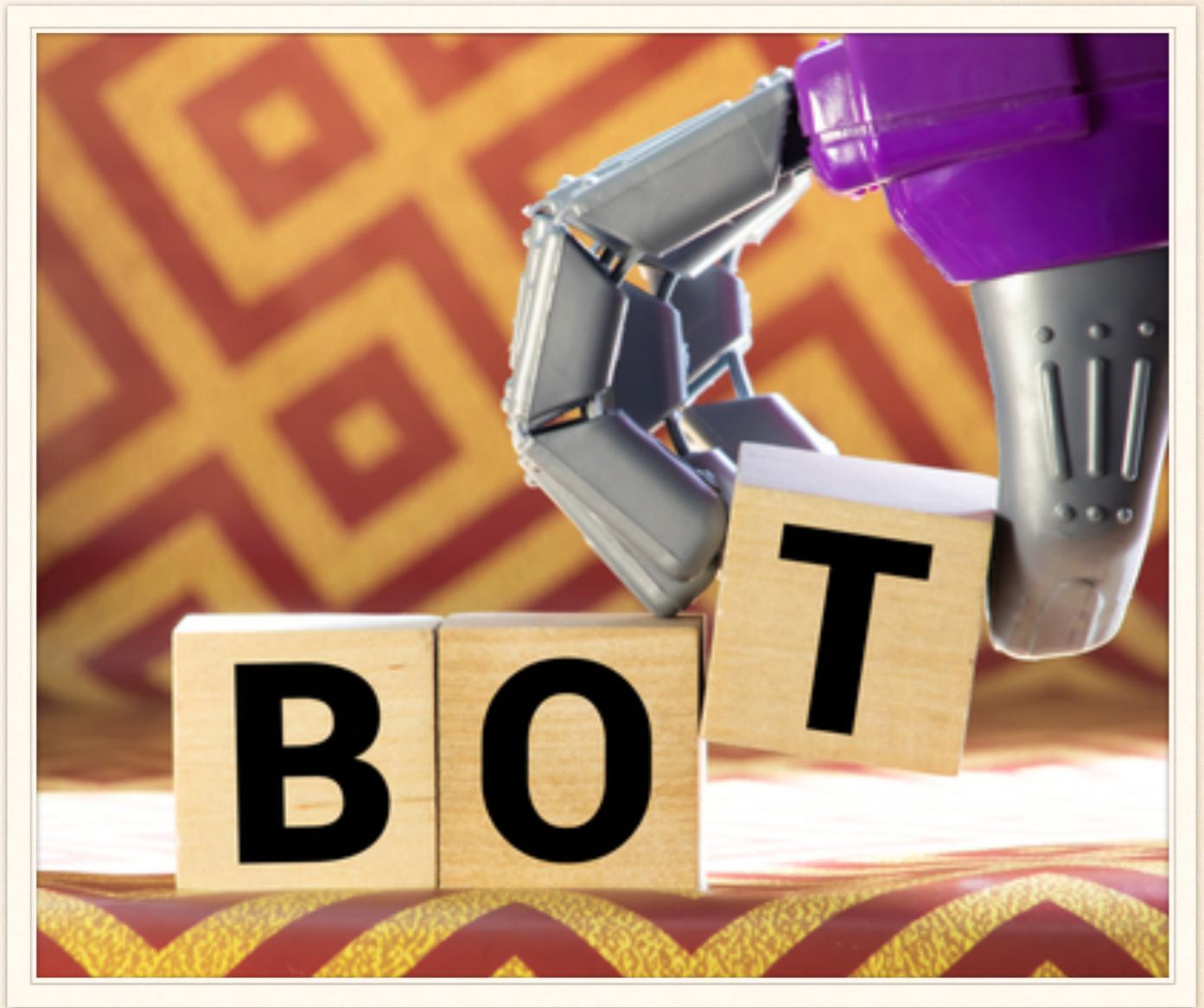
```
Middle English fɹe:xθ, Old English fɹexθu.
```

```
From Proto-Germanic fɹexθu, from PIE root prek̑-,tu.  
Ask + Abstract N.
```

```
# Late PIE  
lpp = late_pie_changes(pie_pron)  
  
# Grimm's Law  
grimm_pron = grimm_changes(lpp)  
  
# Verner's Law  
verner_pron = sound_change(grimm_pron, {'s':'z', 'f':'v', 'x':'z',  
                                         '.*'+VOWEL_PATTERN+'.*', '.*'})  
  
# Proto Germanic Vowel Changes  
pg_pron = proto_germanic_changes(verner_pron)  
  
# Proto-Germanic to Old English  
oe_pron = old_english_changes(pg_pron)  
  
# Late Old English  
loe_pron = late_old_english_changes(oe_pron)  
final_e = False  
  
# Middle English
```

SPELLING MODEL

- ❖ Modern English spelling is clearly perfect... but idiosyncratic
- ❖ Experimented with deriving the spelling from the Middle English pronunciation, but only worked so-so
- ❖ This model is a stripped down n-gram (i.e. probabilistic) but with some tweaks
- ❖ Users are recommended to exercise caution



TWO MORE FOR FUN

nidgewen, *v.*

/niʒ.wən/

To narrow down; to filter out.

Middle English **nidgwen**, *Old English* **niʒwen**.

From Proto-Germanic **nijʒwen**, *PIE* * **neyk** (*winnow*) and suffix **-wen** (*abstract v.*). *cf.* *Latvian* *niekāt*, *Welsh* *nithio*.

iggole, *v.*

/i.gəl/

A juvenile hedgehog.

Middle English **igol**, *Old English* **igila**.

From Proto-Germanic **iyizla**, *PIE* * **H₁eǵ^his** (*hedgehog*) and suffix **-lo** (*dim.*). *cf.* *Lith.* *ežys*, *Albanian* *eshk*



THANK YOU.

tille, *n.*

/til/

A small gift.

Middle English **telle**, *Old English* **tela**.

From Proto-Germanic **tela**, *PIE* *deH₃ (*give*) and suffix -lo (*dim.*).

cf. Latin dō, *Sanskrit* dádati



GITHUB REPO:

<https://github.com/fireflylilly/piebot>

