In [2]:

```
import re
import os
```

Check coverage of the guesser.

To make andi.guesser.hfst: in andi/guesser make andi.guesser.hfst

To make unrecog-fox.txt etc. : andi/coverage make check-unrecog. Make sure the andi.analyzer.hfstol exists in the same repository.

In [1]:

```
def guess_word(word):
    output = os.popen(f"echo {word} | hfst-guess andi.guesser.hfst -n 10").read()
    parses = []
    for el in output.split('\n'):
        parses.append(':'.join(el.split('\t')))

    return parses
```

In [12]:

```
def check_guesser_coverage(path):
    with open(path, 'r') as file:
        file = file.read()
        words = re.findall('(?P<num>\d+) \^(?P<word>[a-яёI]+)\/\*[a-яёI]+\$', fil
        wd = {}
        for word in words:
            guess = guess_word(word[1])
            if guess == ['']:
                guess = []
            wd[word[1]] = {'number': int(word[0]), 'guess':guess, 'len_guess':len

    n_recog = 0
    n_unrecog = 0
    for word in wd.keys():
        if wd[word]['len_guess']:
            n_recog += wd[word]['number']
        else:
            n_unrecog += wd[word]['number']

    print('recog: ', n_recog)
    print('unrecog: ', n_unrecog)
    print('coverage: ', n_recog/(n_recog+n_unrecog))

    return wd
```

In [13]:

```
bible_dict = check_guesser_coverage('unrecog-bible.txt')
```

```
recog:  10056
unrecog:  1197
coverage:  0.8936283657691282
```

In [14]:

```
tales_dict = check_guesser_coverage('unrecog-tales.txt')
```

```
recog:  4069
unrecog:  378
coverage:  0.9149988756465033
```

In [15]:

```
fox_dict = check_guesser_coverage('unrecog-fox.txt')
```

```
recog:  81
unrecog:  9
coverage:  0.9
```