Some remaining bugs. See comments. 7/8

# Eli — EIWL Sections 35, 36

In[151]:=
```
(*35.1*)Interpreter["Location"]["eiffel tower"]
```

Out[151]=
```
GeoPosition[{48.8583, 2.29444}]
```

In[152]:=
```
(*35.2*)Interpreter["University"]["U of T"]
```

Out[152]=

University of Toronto

In[153]:=
```
(*35.3*)Interpreter["Chemical"][{"C2H4", "C2H6", "C3H8"}]
```

Out[153]=

{ethylene, ethane, propane}

In[154]:=
```
(*35.4*)Interpreter["Date"]["20140108"]
```

Out[154]=

Wed 8 Jan 2014

In[155]:=
```
(*35.5*)Interpreter["University"][
 Table[StringJoin["U of ", Capitalize[FromLetterNumber[x]]], {x, 26}]]
```

There is a way to clean all the failures on this and subsequent exercise up. See solution. It took me a bit to figure it out too.

Out[155]=

{Failure[ Message: No university interpretation found. Try again. Tag: InterpretationFailure ], University of Birjand,

University of California-Berkeley, Failure[ Message: No university interpretation found. Try again. Tag: InterpretationFailure ],

The University of Edinburgh, Failure[ Message: No university interpretation found. Try again. Tag: InterpretationFailure ],

University of Georgia, University of Houston, University of Illinois at Urbana-Champaign,

Failure[ Message: No university interpretation found. Try again. Tag: InterpretationFailure ],

Failure[ Message: No university interpretation found. Try again. Tag: InterpretationFailure ], University of Lethbridge,

University of Michigan-Ann Arbor, Failure[ Message: No university interpretation found. Try again. Tag: InterpretationFailure ],

Failure[ Message: No university interpretation found. Try again. Tag: InterpretationFailure ],

University of Phoenix-Online Campus,

Failure[ Message: No university interpretation found. Try again. Tag: InterpretationFailure ],

University of Regina, University of Saskatchewan, University of Toronto,

Failure[ Message: No university interpretation found. Try again. Tag: InterpretationFailure ],

Failure[ Message: No university interpretation found. Try again. Tag: InterpretationFailure ],

Failure[ Message: No university interpretation found. Try again. Tag: InterpretationFailure ],

Failure[ Message: No university interpretation found. Try again. Tag: InterpretationFailure ],

Failure[ Message: No university interpretation found. Try again. Tag: InterpretationFailure ],

Failure[ Message: No university interpretation found. Try again. Tag: InterpretationFailure ]}

In[156]:=

```
(*35.6*)Interpreter["Movie"][
 CommonName[EntityList[United States state capitals CITIES]]]
```

Out[156]=

{Failure[ Message: No movie interpretation found. Try again. Tag: InterpretationFailure ],

Failure[ Message: No movie interpretation found. Try again. Tag: InterpretationFailure ],

Phoenix, Failure[ Message: No movie interpretation found. Try again. Tag: InterpretationFailure ],

Failure[ Message: No movie interpretation found. Try again. Tag: InterpretationFailure ],

Failure[ Message: No movie interpretation found. Try again. Tag: InterpretationFailure ],

Failure[ Message: No movie interpretation found. Try again. Tag: InterpretationFailure ],

Failure[ Message: No movie interpretation found. Try again. Tag: InterpretationFailure ],

Failure[ Message: No movie interpretation found. Try again. Tag: InterpretationFailure ],

Failure[ Message: No movie interpretation found. Try again. Tag: InterpretationFailure ],

Honolulu, Failure[ Message: No movie interpretation found. Try again. Tag: InterpretationFailure ],

Failure[ Message: No movie interpretation found. Try again. Tag: InterpretationFailure ],

Failure[ Message: No movie interpretation found. Try again. Tag: InterpretationFailure ],

Failure[ Message: No movie interpretation found. Try again. Tag: InterpretationFailure ],

Topeka, Failure[ Message: No movie interpretation found. Try again. Tag: InterpretationFailure ],

Failure[ ⚠ Message: No movie interpretation found. Try again.
Tag: InterpretationFailure ],

Failure[ ⚠ Message: No movie interpretation found. Try again.
Tag: InterpretationFailure ],

Annapolis, Failure[ ⚠ Message: No movie interpretation found. Try again.
Tag: InterpretationFailure ],

Failure[ ⚠ Message: No movie interpretation found. Try again.
Tag: InterpretationFailure ],

Failure[ ⚠ Message: No movie interpretation found. Try again.
Tag: InterpretationFailure ],

Failure[ ⚠ Message: No movie interpretation found. Try again.
Tag: InterpretationFailure ],

Failure[ ⚠ Message: No movie interpretation found. Try again.
Tag: InterpretationFailure ],

Failure[ ⚠ Message: No movie interpretation found. Try again.
Tag: InterpretationFailure ],

Lincoln, Failure[ ⚠ Message: No movie interpretation found. Try again.
Tag: InterpretationFailure ],

Failure[ ⚠ Message: No movie interpretation found. Try again.
Tag: InterpretationFailure ],

Failure[ ⚠ Message: No movie interpretation found. Try again.
Tag: InterpretationFailure ],

Santa Fe, Failure[ ⚠ Message: No movie interpretation found. Try again.
Tag: InterpretationFailure ],

Failure[ ⚠ Message: No movie interpretation found. Try again.
Tag: InterpretationFailure ], Expedition: Bismarck,

Columbus, Failure[ ⚠ Message: No movie interpretation found. Try again.
Tag: InterpretationFailure ],

Failure[ ⚠ Message: No movie interpretation found. Try again.
Tag: InterpretationFailure ],

Failure[ Message: No movie interpretation found. Try again. Tag: InterpretationFailure ],

Providence, Failure[ Message: No movie interpretation found. Try again. Tag: InterpretationFailure ],

Failure[ Message: No movie interpretation found. Try again. Tag: InterpretationFailure ],

Nashville, Failure[ Message: No movie interpretation found. Try again. Tag: InterpretationFailure ],

Failure[ Message: No movie interpretation found. Try again. Tag: InterpretationFailure ],

Failure[ Message: No movie interpretation found. Try again. Tag: InterpretationFailure ],

Failure[ Message: No movie interpretation found. Try again. Tag: InterpretationFailure ], Olympia,

Failure[ Message: No movie interpretation found. Try again. Tag: InterpretationFailure ], Madison, Cheyenne}

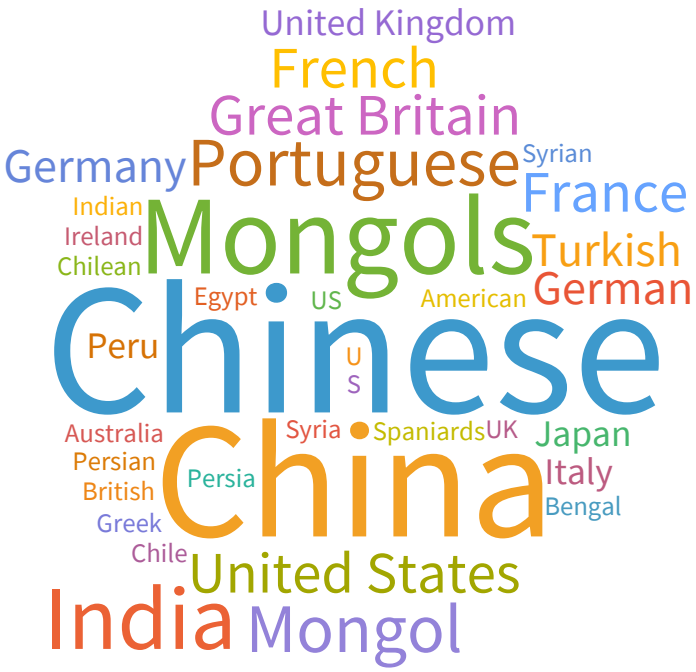
In[157]:=

```
(*35.7*)Interpreter["City"][StringJoin[#] & /@ Permutations[{"a", "i", "l", "m"}]]
```

Out[157]=


Failure[ Message: No city interpretation found. Try again. Tag: InterpretationFailure ],
Failure[ Message: No city interpretation found. Try again. Tag: InterpretationFailure ],
Alim, Failure[ Message: No city interpretation found. Try again. Tag: InterpretationFailure ],
Failure[ Message: No city interpretation found. Try again. Tag: InterpretationFailure ], Amli,
Balm, Failure[ Message: No city interpretation found. Try again. Tag: InterpretationFailure ],
Ilam, Failure[ Message: No city interpretation found. Try again. Tag: InterpretationFailure ],
Failure[ Message: No city interpretation found. Try again. Tag: InterpretationFailure ],
Failure[ Message: No city interpretation found. Try again. Tag: InterpretationFailure ],
Failure[ Message: No city interpretation found. Try again. Tag: InterpretationFailure ], Lami,
Failure[ Message: No city interpretation found. Try again. Tag: InterpretationFailure ], Lima,
Lamai, Failure[ Message: No city interpretation found. Try again. Tag: InterpretationFailure ],
Failure[ Message: No city interpretation found. Try again. Tag: InterpretationFailure ], Mali,
Failure[ Message: No city interpretation found. Try again. Tag: InterpretationFailure ], Milah,
Mali, Failure[ Message: No city interpretation found. Try again. Tag: InterpretationFailure ]}

In[158]:=
```
(*35.8*)WordCloud[TextCases[WikipediaData["gunpowder"], "Country"]]
```
Out[158]=




In[159]:=
```
(*35.9*)TextCases["She sells sea shells by the sea shore", "Noun"]
```
Out[159]=
```
{sea, shells, sea, shore}
```

In[160]:=
```
(*35.10*)Length[#] & /@
 Values[TextCases[StringJoin[Characters[WikipediaData["Computers"]][[1 ;; 1000]]],
   {"Noun", "Verb", "Adjective"}]]
```
Out[160]=
```
{54, 23, 20}
```

In[161]:=
```
(*35.11*)TextStructure[TextSentences[WikipediaData["computers"]][[1]]]
```

Out[161]=

| A | computer | is | a | machine | that | can | be | programmed | to | automa |
|---|---|---|---|---|---|---|---|---|---|---|
| Determiner | Noun | Verb | Determiner | Noun | Wh–Determiner | Verb | Verb | Verb | Preposition | Adve |
| Noun Phrase | | | Noun Phrase | | Wh–Noun Phrase | | | | | |

In[162]:=
```
(*35.12*)Keys[Reverse[Sort[Counts[
     TextCases[ExampleData[{"Text", "AliceInWonderland"}], "Noun"]]]][[1 ;; 10]]
```

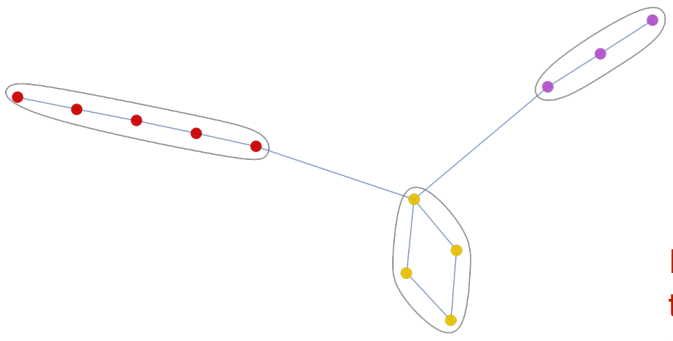
Out[162]=
```
{Rabbit, door, voice, time, Mouse, way, moment, thing, head, garden}
```

In[163]:=
```
(*35.13*)words := TextWords[TextSentences[WikipediaData["language"]][[1]]];
words
```

Out[164]=
```
{Language, is, a, structured, system, of,
 communication, that, consists, of, grammar, and, vocabulary}
```

In[165]:=
```
CommunityGraphPlot[words[[#]] → words[[# + 1]] & /@ Range[Length[words] - 1]]
```

Out[165]=



I found using TextStructure to get the plot gave something much more informative.

In[166]:=
```
(*35.14*)Length[#] & /@ Values[TextCases[
   StringJoin[Riffle[WordList[][[1 ;; 50]], Table[" ", Length[WordList[][[1 ;; 50]]]]],
   {"Noun", "Verb", "Adjective", "Adverb"}]]
 (*My computer hates the whole wordlist*)
```

Out[166]=
```
{29, 9, 8, 2}
```

Probably an internet bandwidth issue. It is refetching data from Wolfram's servers to do these analyses.

In[167]:=
```
(*35.15*)Flatten[WordTranslation[IntegerName[Range[9] + 1], "French"]]
```

Out[167]=
```
{deux, trois, quatre, cinq, six, sept, huit, neuf, dix}
```

In[168]:=
```
(*36.1*)CloudPublish[Style[RandomInteger[1000], FontSize → 100]]
```

Out[168]=
```
CloudObject[https://www.wolframcloud.com/obj/03b6bac7-ecbe-464e-8358-b603c431e055]
```

In[169]:=
```
(*36.2*)CloudPublish[FormFunction[{"x" → "Number"}, #x^#x &]]
```

Out[169]=
```
CloudObject[https://www.wolframcloud.com/obj/ca260cc3-3f4d-42a6-9f9b-2701647210b1]
```

In[170]:=
```
(*36.3*)CloudPublish[FormFunction[{"x" → "Number", "y" → "Number"}, #x^#y &]]
```

Out[170]=
```
CloudObject[https://www.wolframcloud.com/obj/0047c168-4a9e-4794-b09e-700bdd0d57f8]
```

In[171]:=
```
(*36.4*)CloudPublish[
 FormFunction[{"page" → "String"}, WordCloud[WikipediaData[#page]] &]]
```

Out[171]=
```
CloudObject[https://www.wolframcloud.com/obj/04f9f46f-26c0-4d5e-9f65-0b1423bbdcc2]
```

In[172]:=
```
(*36.5*)CloudPublish[
 FormFunction[{"string" → "String"}, Style[StringReverse[#string], 50] &]]
```

Out[172]=
```
CloudObject[https://www.wolframcloud.com/obj/80882c6c-d67e-4245-acf5-76ffce4b8594]
```

In[173]:=
```
(*36.6*)CloudPublish[FormFunction[{"n" → "Integer"},
  Graphics[Style[RegularPolygon[#n], RandomColor[]]] &]]
```

Out[173]=
```
CloudObject[https://www.wolframcloud.com/obj/a3537411-5ad6-4412-b3c8-97409efd1567]
```

In[174]:=
```
(*36.7*)
```

You must use “location”->”Location” to get the correct interpretation.

In[175]:=
```
CloudPublish[FormFunction[{"location" → "String", "n" → "Integer"},
  GeoNearest["Volcano", GeoPosition[Interpreter["Location"][#location]] &, #n &]]]
```

GeoNearest: GeoPosition[Interpreter[Location][#location]] & is not a valid location specification.

Out[175]=
```
CloudObject[https://www.wolframcloud.com/obj/aa01551a-52a8-4dd8-9e19-d8cbd818ea17]
```