

# Walker — Problem Set 14

## Section 35

In[26]:= **Interpreter**["Location"] ["Eiffel Tower"]

Out[26]=  
GeoPosition[{48.8583, 2.29444}]

In[27]:= **Interpreter**["University"] ["U of T"]

Out[27]=  
University of Toronto

In[28]:= **Interpreter**["Chemical"] [{"C2H4", "C2H6", "C3H8"}]

Out[28]=  
{ethylene, ethane, propane}

In[29]:= **Interpreter**["Date"] ["20140108"]

Out[29]=  
Wed 8 Jan 2014

In[30]:= **Cases**[**Interpreter**["University"] [  
StringJoin["U of ", #] & /@ ToUpperCase[Alphabet[]]], \_Entity]

Out[30]=  
{University of Birjand, University of California-Berkeley, The University of Edinburgh,  
University of Georgia, University of Houston, University of Illinois at Urbana-Champaign,  
University of Lethbridge, University of Michigan-Ann Arbor, University of Phoenix-Online Campus,  
University of Regina, University of Saskatchewan, University of Toronto}

In[31]:= **Cases**[**Interpreter**["Movie"] [CommonName /@  
all US states with District of Columbia ADMINISTRATIVE DIVISIONS [capital city], \_Entity]

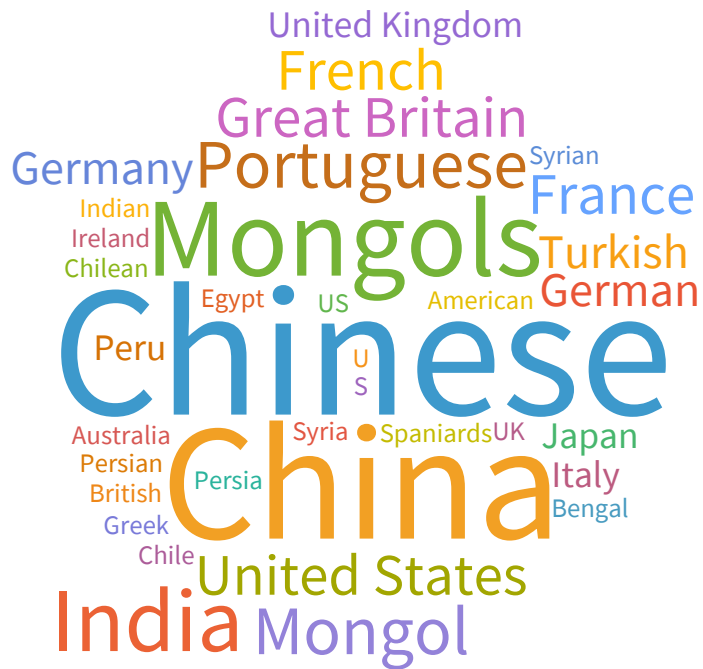
Out[31]=  
{Phoenix, Honolulu, Topeka, Annapolis, Lincoln, Santa Fe, Expedition: Bismarck,  
Columbus, Providence, Nashville, Olympia, Madison, Cheyenne}

In[32]:= **Cases**[**Interpreter**["City"] [StringJoin /@ Permutations[{"l", "i", "m", "a"}]], \_Entity]

Out[32]=  
{Lima, Lamai, Lami, Ilam, Balm, Mali, Milah, Mali, Alim, Amli}

```
In[33]:= WordCloud[TextCases[WikipediaData["gunpowder"], "Country"]]
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Out[33]=
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In[34]:= TextCases["She sells seashells by the sea shore.", "Noun"]
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```
Out[34]=
```

```
{seashells, sea, shore}
```

```
In[35]:= Length[TextCases[StringTake[WikipediaData["computers"], 1000], #]] & /@  
{"Noun", "Verb", "Adjective"}
```

```
Out[35]=
```

```
{54, 23, 20}
```

In[36]:= **TextStructure[TextSentences[WikipediaData["computers"]][[1]]**

Out[36]=

<u>A</u>	<u>computer</u>	<u>is</u>	<u>a</u>	<u>machine</u>	<u>that</u>	<u>can</u>	<u>be</u>	<u>programmed</u>	<u>to</u>	<u>automate</u>
Determiner	Noun	Verb	Determiner	Noun	Wh-Determiner	Verb	Verb	Verb	Preposition	Adverb
Noun Phrase			Noun Phrase		Wh-Noun Phrase					

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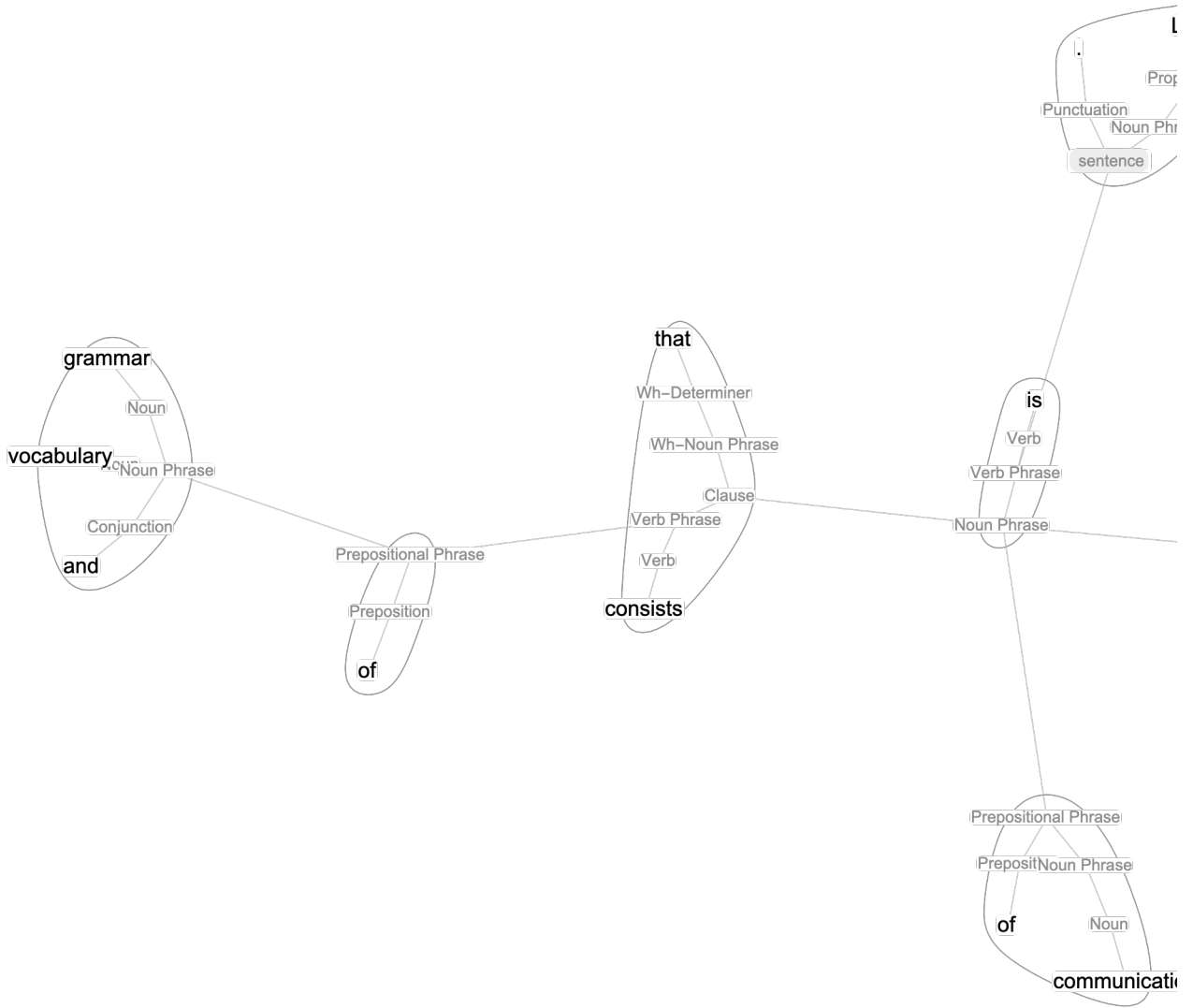
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In[37]:= **Keys[TakeLargest[  
Counts[TextCases[ExampleData[{"Text", "AliceInWonderland"}], "Noun"]], 10]]**

Out[37]= {Rabbit, door, voice, time, way, Mouse, moment, thing, head, table}

```
In[38]:= CommunityGraphPlot[First[TextStructure[
    First[TextSentences[WikipediaData["language"]]]], "ConstituentGraphs"]]
```

Out[38]=



```
In[39]:= Length[WordList[#]] & /@ {"Noun", "Verb", "Adjective", "Adverb"}
```

```
Out[39]=
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$$\{24\,493, 6503, 11\,392, 3120\}$$

```
In[40]:= Flatten[Table[WordTranslation[IntegerName[n], "French"], {n, 2, 10}]]
```

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Out[40]=
{deux, trois, quatre, cinq, six, sept, huit, neuf, dix}
```

## Section 36

```

In[41]:= CloudPublish[Delayed[Style[RandomInteger[1000], 100]]]
Out[41]= CloudObject[https://www.wolframcloud.com/obj/2859f68f-5752-4eb6-b731-2fd46e264167]

In[42]:= CloudPublish[FormFunction[{"n" → "Number"}, #n^#n &]]
Out[42]= CloudObject[https://www.wolframcloud.com/obj/21e06ecb-ac76-438f-b57a-a8ee73ffa086]

In[43]:= CloudPublish[FormFunction[{"n" → "Number", "n" → "Number"}, #n^#p &]]
Out[43]= CloudObject[https://www.wolframcloud.com/obj/95ff140c-f08e-4fbc-89b5-d97f3e0ac2e3]

In[44]:= CloudPublish[FormFunction[{"Topic" → "String"}, WordCloud[WikipediaData[#Topic]] &]]
Out[44]= CloudObject[https://www.wolframcloud.com/obj/d2484caa-4bb9-4bb2-9d3b-301f1327c974]

In[45]:= CloudPublish[FormPage[{"string" → "String"}, Style[StringReverse[#string], 50] &]]
Out[45]= CloudObject[https://www.wolframcloud.com/obj/e0ae6743-1ba6-4d15-8aef-db6509d37e4f]

In[46]:= CloudPublish[
  FormPage[{"n" → "Number"}, Graphics[Style[RegularPolygon[#n], RandomColor[]]] &]]
Out[46]= CloudObject[https://www.wolframcloud.com/obj/ac45c156-0c27-4305-b54d-2f1819182ac3]

In[47]:= CloudPublish[FormPage[{"location" → "Location", "n" → "Number"},
  GeoListPlot[GeoNearest["Volcano", #location, #n]] &]]
Out[47]= CloudObject[https://www.wolframcloud.com/obj/63fe5f48-cb8d-4a13-8693-80a4242517c4]

```