

Mobile Health Text Misinformation Detection Using Effective Information Retrieval Methods

```
warning('off','MATLAB:ClassInstanceExists')
clear classes
mod = py.importlib.import_module('LCSPython');
py.importlib.reload(mod);

modLACS = py.importlib.import_module('LACSPython');
py.importlib.reload(modLACS);

modPhrase = py.importlib.import_module('PhrasePython');
py.importlib.reload(modPhrase);
```

Longest Common Subsequence (LCS)

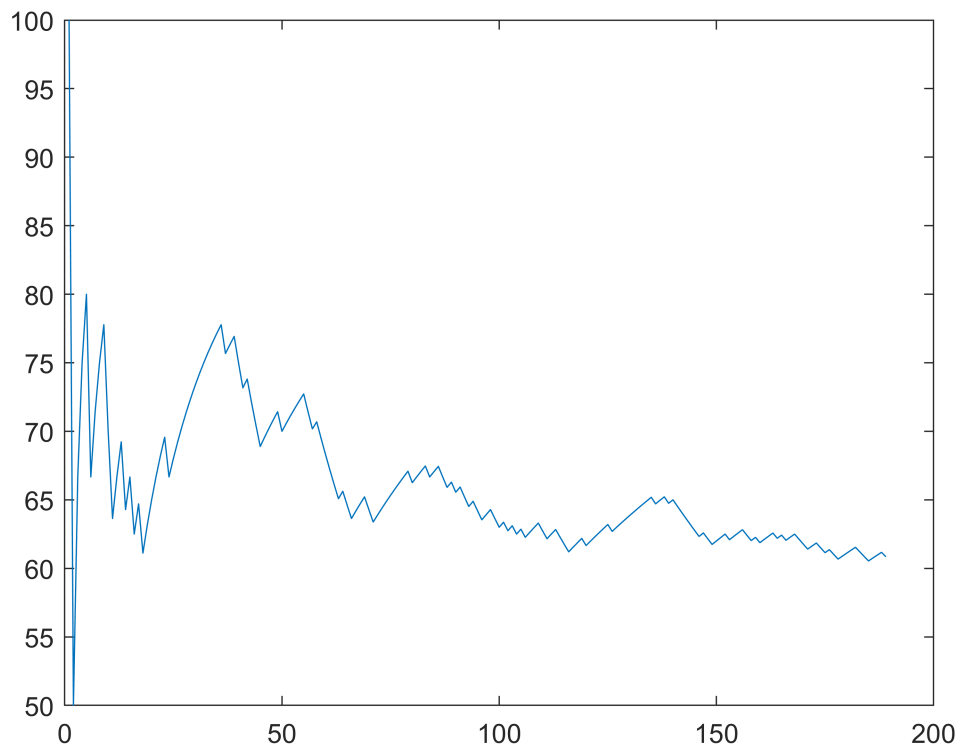
Similarity = # of connections

```
py.LCSPython.getResult()
T = readtable('LCSResult.csv');
T
```

T = 6x4 table

	Class	Total	LCSCorrectPrediction	LCSAccuracy
1	'Disinformative'	34	18	53
2	'Real'	24	9	38
3	'Fake'	52	43	83
4	'MisInformative'	35	17	49
5	'Unverified'	44	28	64
6	'Total'	189	115	61

```
T = readtable('PlotLCS.csv');
X=T{:,1};
Y=T{:,2};
savefig('LCSdata.fig');
close(gcf);
%openfig('LCSdata.fig')
plot(X,Y)
```



Longest Approximate Common Subsequence (LACS)

Similarity = $\text{Weight} * (\# \text{ of connections}) - (\# \text{ of crossings}) / (\# \text{ of connections})$

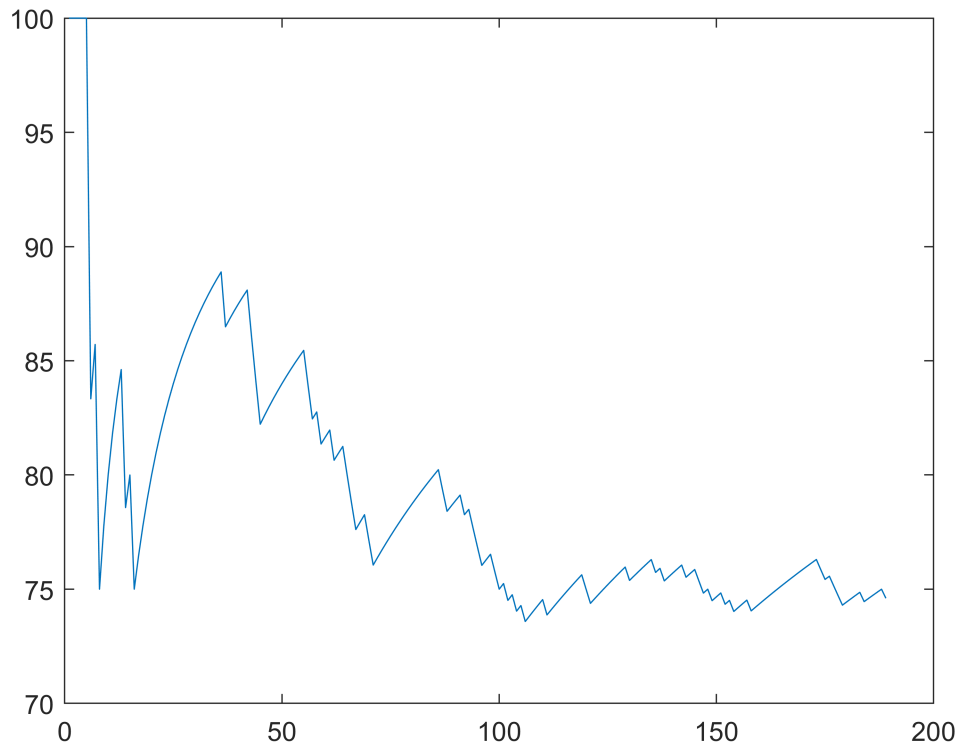
```
py.LACSProjectPython.getResult()
T = readtable('LACSResult.csv');
T
```

T = 6x4 table

	Class	Total	LACSCorrectPrediction	LACSAccuracy
1	'Disinformative'	34	27	79
2	'Real'	24	10	42
3	'Fake'	52	50	96
4	'MisInformative'	35	23	66
5	'Unverified'	44	31	70
6	'Total'	189	141	75

```
T = readtable('PlotLACS.csv');
X=T{:,1};
Y=T{:,2};
```

```
savefig('LACSdata.fig');
close(gcf);
%openfig('LACSdata.fig')
plot(X,Y)
```



Phrases Matched

Similarity= (# of keywords matched) + 2×(# of phrases matched) + \sum (length of each phrase matched)

```
py.PhraseProjectPython.getResult()
T = readtable('PhraseResult.csv');
T
```

T = 6×4 table

	Class	Total	PhraseMatchedCorrectPrediction	PhraseMatchedAccuracy
1	'Disinformative'	34	23	68
2	'Real'	24	10	42
3	'Fake'	52	46	88
4	'MisInformative'	35	20	57
5	'Unverified'	44	25	57
6	'Total'	189	124	66

```
T = readtable('PlotPhrase.csv');
X=T{:,1};
```

```
Y=T{:,2};  
savefig('Phrasedata.fig');  
close(gcf);  
%openfig('LACSdata.fig')  
plot(X,Y)
```

