新舊資料實驗結果比較

舊資料

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Num. of texts | Num. of tokens | Avg. tokens | Valence | | | Arousal | | |
| MAE | MSE | *r* | MAE | MSE | *r* |
| ANEW vs Forum | 20 | 15,035 | 751.75 | 1.20 | 1.55 | 0.77 | 0.72 | 0.85 | 0.27 |
| CVAW vs CVAT |  |  |  | 1.502 | 1.014 | 0.508 | 0.796 | 0.724 | 0.197 |
| Book Review |  |  |  | 1.132 | 0.852 | 0.390 | 0.525 | 0.586 | 0.174 |
| Car Forum |  |  |  | 1.229 | 0.914 | 0.299 | 0.944 | 0.815 | 0.130 |
| Computer Review |  |  |  | 1.238 | 0.873 | 0.502 | 1.300 | 0.812 | 0.071 |
| Hotel Review |  |  |  | 1.695 | 1.050 | 0.593 | 0.795 | 0.747 | 0.451 |
| News Article |  |  |  | 1.317 | 0.951 | 0.540 | 0.844 | 0.752 | 0.145 |
| Politics Forum |  |  |  | 0.864 | 0.777 | 0.612 | 0.896 | 0.743 | 0.165 |

新資料

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Num. of texts | Num. of tokens | Avg. tokens | Valence | | | Arousal | | |
| MAE | MSE | *r* | MAE | MSE | *r* |
| ANEW vs Forum | 20 | 15,035 | 751.75 | 1.20 | 1.55 | 0.77 | 0.72 | 0.85 | 0.27 |
| CVAW vs CVAT | 2,009 | 32.27 | 64,826 | 1.388 | 0.961 | 0.544 | 0.791 | 0.723 | 0.219 |
| Book Review | 287 | 26.20 | 7,520 | 1.023 | 0.862 | 0.398 | 0.559 | 0.624 | 0.256 |
| Car Forum | 257 | 45.60 | 11,720 | 1.039 | 0.821 | 0.396 | 0.766 | 0.692 | 0.083 |
| Computer Review | 183 | 26.49 | 4,847 | 1.427 | 0.958 | 0.550 | 1.900 | 1.060 | 0.051 |
| Hotel Review | 301 | 21.93 | 6,601 | 2.095 | 1.251 | 0.605 | 0.981 | 0.815 | 0.291 |
| News Article | 542 | 36.75 | 19,919 | 1.243 | 0.904 | 0.645 | 0.709 | 0.680 | 0.205 |
| Politics Forum | 439 | 32.39 | 14,219 | 1.017 | 0.816 | 0.524 | 0.854 | 0.760 | 0.290 |

使用新舊資料混合情況下的實驗結果

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Num. of texts | Num. of tokens | Avg. tokens | Valence | | | Arousal | | |
| MAE | MSE | *r* | MAE | MSE | *r* |
| ANEW vs Forum | 20 | 15,035 | 751.75 | 1.20 | 1.55 | 0.77 | 0.72 | 0.85 | 0.27 |
| CVAW vs CVAT |  |  |  | 1.389 | 0.962 | 0.544 | 0.791 | 0.723 | 0.219 |
| Book Review |  |  |  | 0.969 | 0.831 | 0.427 | 0.595 | 0.641 | 0.293 |
| Car Forum |  |  |  | 0.956 | 0.776 | 0.266 | 0.731 | 0.690 | 0.098 |
| Computer Review |  |  |  | 1.204 | 0.842 | 0.541 | 1.363 | 0.854 | 0.075 |
| Hotel Review |  |  |  | 1.649 | 1.060 | 0.685 | 0.836 | 0.747 | 0.352 |
| News Article |  |  |  | 1.110 | 0.854 | 0.679 | 0.732 | 0.676 | 0.333 |
| Politics Forum |  |  |  | 1.010 | 0.815 | 0.515 | 0.953 | 0.788 | 0.264 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Num. of texts | Num. of tokens | Avg. tokens | Valence | | | Arousal | | |
| MAE | MSE | *r* | MAE | MSE | *r* |
| ANEW vs Forum | 20 | 15,035 | 751.75 | 1.20 | 1.55 | 0.77 | 0.72 | 0.85 | 0.27 |
| CVAW vs CVAT |  |  |  | 0.962 | 1.389 | 0.544 | 0.723 | 0.791 | 0.219 |
| Book Review |  |  |  | 0.831 | 0.969 | 0.427 | 0.641 | 0.595 | 0.293 |
| Car Forum |  |  |  | 0.776 | 0.956 | 0.266 | 0.690 | 0.731 | 0.098 |
| Computer Review |  |  |  | 0.842 | 1.204 | 0.541 | 0.854 | 1.363 | 0.075 |
| Hotel Review |  |  |  | 1.060 | 1.649 | 0.685 | 0.747 | 0.836 | 0.352 |
| News Article |  |  |  | 0.854 | 1.110 | 0.679 | 0.676 | 0.732 | 0.333 |
| Politics Forum |  |  |  | 0.815 | 1.010 | 0.515 | 0.788 | 0.953 | 0.264 |

不加回归的数据结果 (算术平均)

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|  | Num. of texts | Num. of tokens | Avg. tokens | Valence | | | Arousal | | |
| MAE | RMSE | *r* | MAE | RMSE | *r* |
| ANEW vs Forum | 20 | 15,035 | 751.75 | 1.20 | 1.55 | 0.77 | 0.72 | 0.85 | 0.27 |
| CVAW vs CVAT |  |  |  | 1.19 | 1.513 | 0.539 | 1.009 | 1.278 | 0.153 |
| Book Review |  |  |  | 0.965 | 1.285 | 0.425 | 0.908 | 1.138 | 0.183 |
| Car Forum |  |  |  | 1.446 | 1.737 | 0.297 | 0.898 | 1.119 | 0.1 |
| Computer Review |  |  |  | 0.942 | 1.215 | 0.538 | 1.089 | 1.418 | 0.072 |
| Hotel Review |  |  |  | 1.361 | 1.733 | 0.585 | 0.922 | 1.162 | 0.221 |
| News Article |  |  |  | 1.101 | 1.392 | 0.615 | 1.115 | 1.397 | 0.173 |
| Politics Forum |  |  |  | 1.271 | 1.594 | 0.506 | 1.03 | 1.306 | 0.183 |

老師我仔細比較了一下和王津學長的程式結果，發現對每一個文本的預測valence和arousal值是相同的，但是最終的總體測量結果仍然有稍微不同。

我的程式log：valence ([all\_valence.txt](https://raw.githubusercontent.com/candlewill/Thesis_experiment/master/resources/logs/all_valence.txt)), arousal ([all\_arousal.txt](https://raw.githubusercontent.com/candlewill/Thesis_experiment/master/resources/logs/all_arousal.txt))

王津學長的log：([log (utf-8).txt](https://github.com/candlewill/Thesis_experiment/blob/master/resources/logs/log%20(utf-8).txt))

實驗結果

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Num. of texts | Num. of tokens | Avg. tokens | Valence | | | Arousal | | |
| MAE | RMSE | *r* | MAE | RMSE | *r* |
| ANEW vs Forum | 20 | 15,035 | 751.75 | 1.20 | 1.55 | 0.77 | 0.72 | 0.85 | 0.27 |
| CVAW vs CVAT |  |  |  | 1.198 | 1.522 | 0.536 | 1.008 | 1.276 | 0.155 |
| Book Review |  |  |  | 1.014 | 1.336 | 0.386 | 0.895 | 1.119 | 0.199 |
| Car Forum |  |  |  | 1.471 | 1.756 | 0.29 | 0.907 | 1.136 | 0.094 |
| Computer Review |  |  |  | 0.943 | 1.203 | 0.55 | 1.082 | 1.416 | 0.051 |
| Hotel Review |  |  |  | 1.353 | 1.728 | 0.58 | 0.931 | 1.172 | 0.217 |
| News Article |  |  |  | 1.103 | 1.4 | 0.611 | 1.11 | 1.392 | 0.172 |
| Politics Forum |  |  |  | 1.276 | 1.6 | 0.507 | 1.036 | 1.308 | 0.189 |

新的资料集（utf-8, newest3.31）下实验结果：

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Num. of texts | Num. of tokens | Avg. tokens | Valence | | | Arousal | | |
| MAE | RMSE | *r* | MAE | RMSE | *r* |
| ANEW vs Forum | 20 | 15,035 | 751.75 | 1.20 | 1.55 | 0.77 | 0.72 | 0.85 | 0.27 |
| CVAW vs CVAT |  |  |  | 1.198 | 1.522 | 0.536 | 1.008 | 1.276 | 0.155 |
| Book Review |  |  |  | 1.014 | 1.336 | 0.386 | 0.895 | 1.119 | 0.199 |
| Car Forum |  |  |  | 1.471 | 1.756 | 0.29 | 0.907 | 1.136 | 0.094 |
| Computer Review |  |  |  | 0.951 | 1.209 | 0.548 | 1.082 | 1.416 | 0.051 |
| Hotel Review |  |  |  | 1.353 | 1.728 | 0.58 | 0.931 | 1.172 | 0.217 |
| News Article |  |  |  | 1.103 | 1.4 | 0.611 | 1.11 | 1.392 | 0.172 |
| Politics Forum |  |  |  | 1.276 | 1.6 | 0.507 | 1.036 | 1.308 | 0.189 |