Chapter 4 - Matrix of Literature

November 10, 2020

Jupyter notebook used to generate analytical matrix of literature.

Keep in mind that parts of this script are randomised, so the output will not be (visually) exactly the same as the one published in the paper.

Generates figure 4.2. (which is further manually post-processed)

```python
import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt
import numpy as np
from adjustText import adjust_text
```

```python
sns.set_style("white")
sns.set_context("paper")
```

```python
data = pd.read_csv("literature.csv", index_col=0)
```

```python
# get jittered coords
data['x'] = data.extent + np.random.normal(0, 0.1, len(data))
data['y'] = data.grain + np.random.normal(0, 0.1, len(data))
```

```python
cmap = sns.cubehelix_palette(dark=.3, light=.8, as_cmap=True)
plt.figure(figsize=(12, 12))
ax = sns.scatterplot(x=data.x,
                     y=data.y,
                      hue="purpose", size="metric",
                      palette="Set2",alpha=0.8,sizes=(100, 1000),
                      data=data, legend='brief', zorder=2)
plt.legend(bbox_to_anchor=(1.05, 1), loc=2, borderaxespad=0.)
texts = [plt.text(row.x, row.y, row.author, zorder=1, color='grey') for i, row
 ↪in data.iterrows()]
sns.despine()
adjust_text(texts, arrowprops=dict(arrowstyle="-", color='grey', lw=0.3))
```