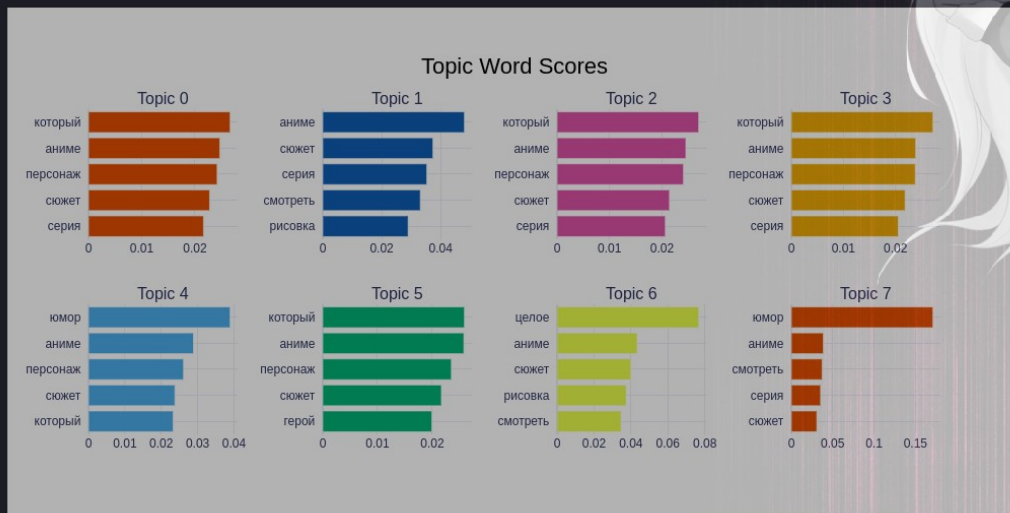
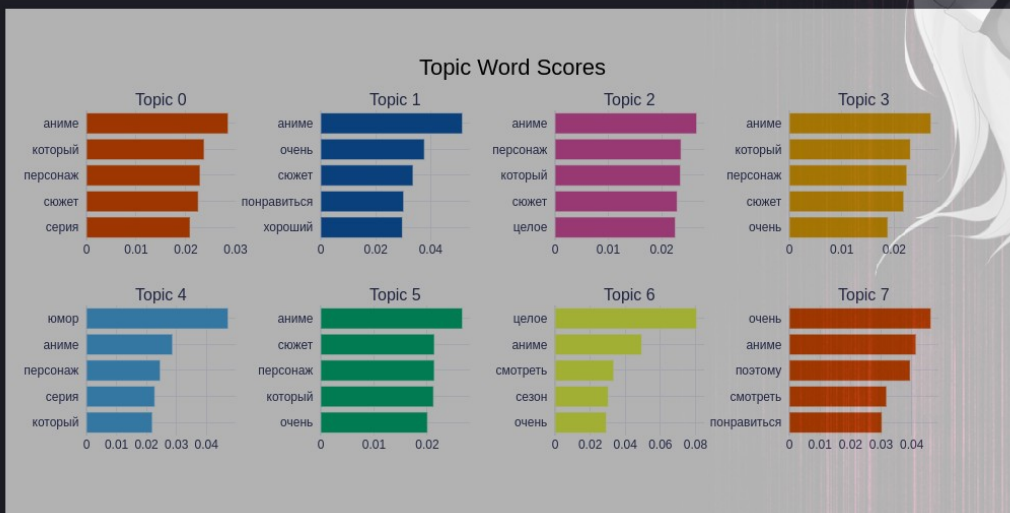


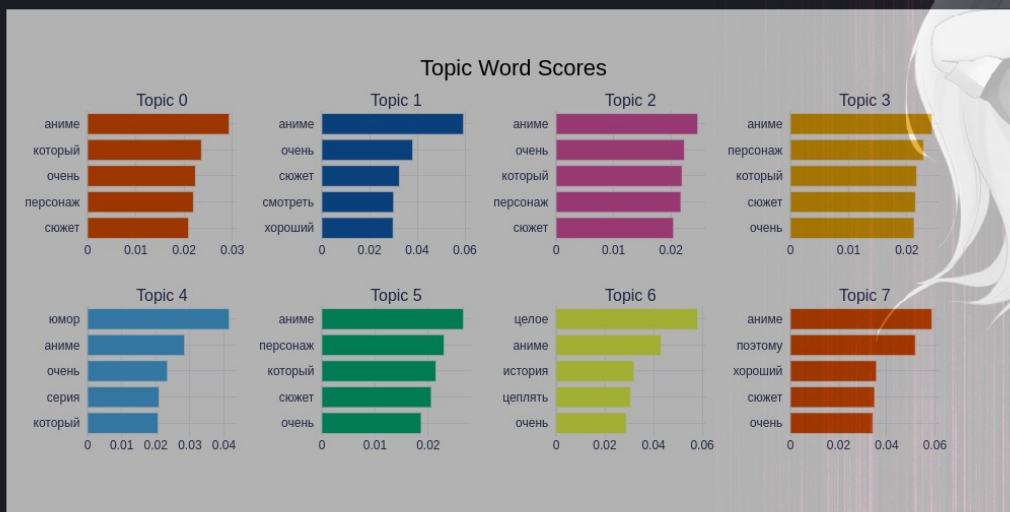
```
topic_model_n.visualize_barchart()
```



```
topic_model_neu.visualize_barchart()
```

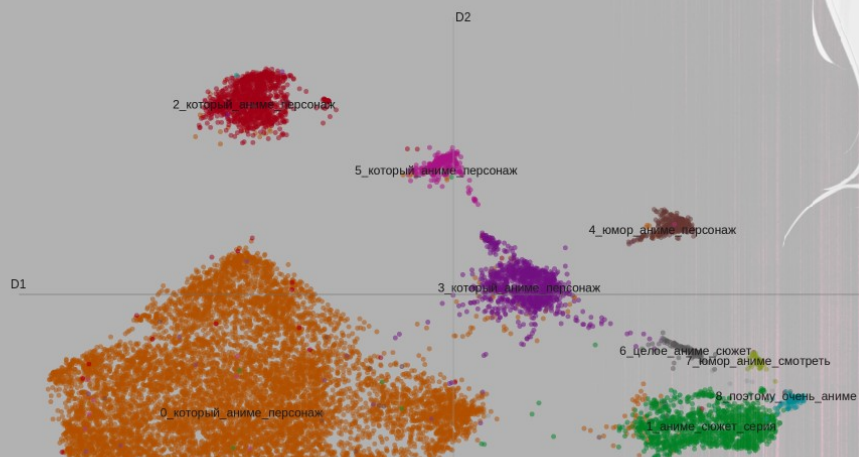


```
topic_model_p.visualize_barchart()
```



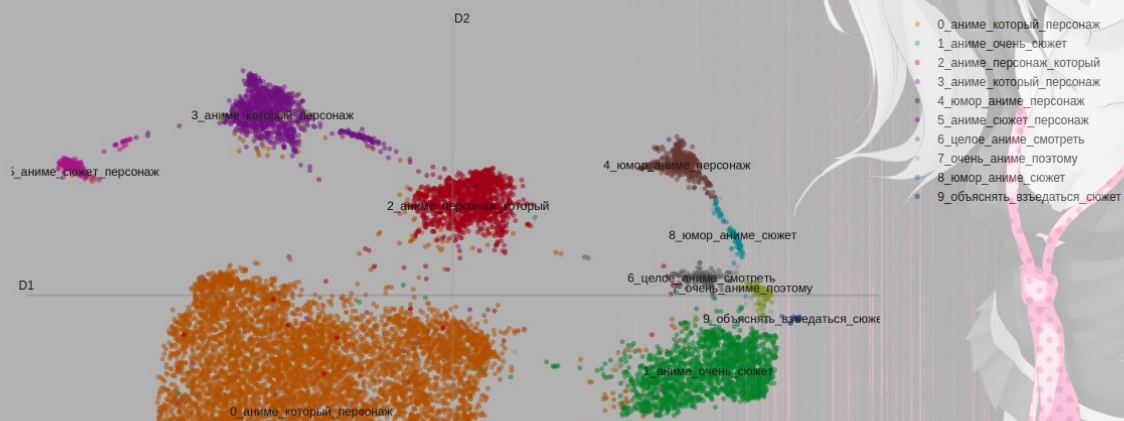
```
topic_model_n.visualize_documents(df[df['Rate'] == 1]['Text'].tolist())
```

### Documents and Topics



```
topic_model_neu.visualize_documents(df[df['Rate'] == 0]['Text'].tolist())
```

### Documents and Topics



```
topic_model_p.visualize_documents(df[df['Rate'] == 2][['Text']].tolist())
```

## Documents and Topics

