

# Mapping Amman's Social Media Landscape

## Introduction

How useful can social media sites be in analyzing socio-economic changes to a society? To answer this question, we studied how the citizenry in Amman, Jordan are representing their national and class identities in the midst of a government-led neoliberal investment project that has led to the proliferation of new cafes and restaurants in the city.

## Data Collection

We used web scraping techniques to collect all information currently available about Amman's restaurants listed in TripAdvisor search results (570 in total) as well as on individual restaurant pages. Information included location, reviews, rating scores, types of travelers, language of reviews, and the categories of the restaurants.



## Initial Analysis

The top cuisines (according to Tripadvisor tags) chosen by most reviewers were Lebanese, fast food, Mediterranean and Middle Eastern.

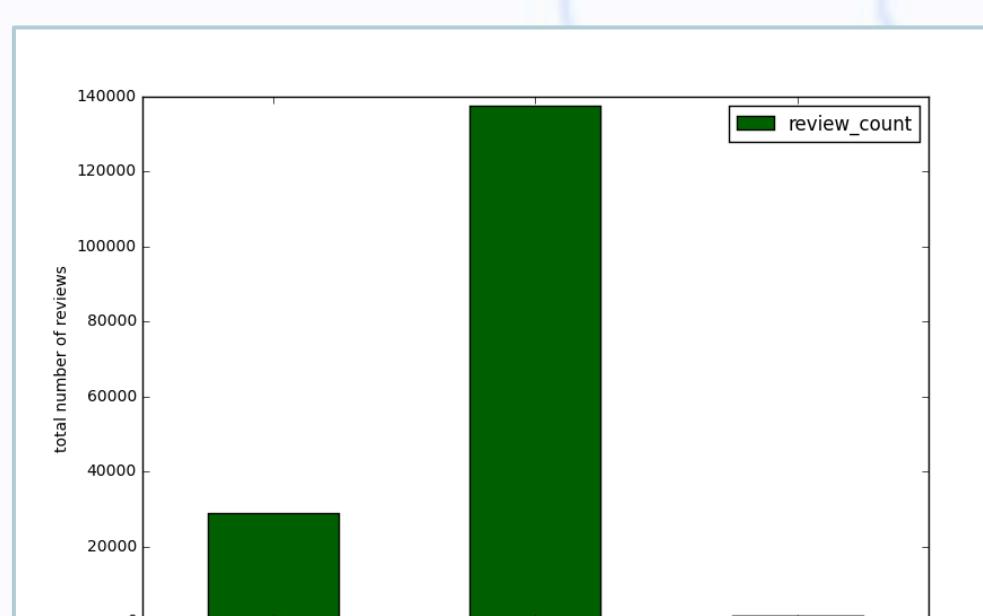


Fig 1. Rating scores of restaurants

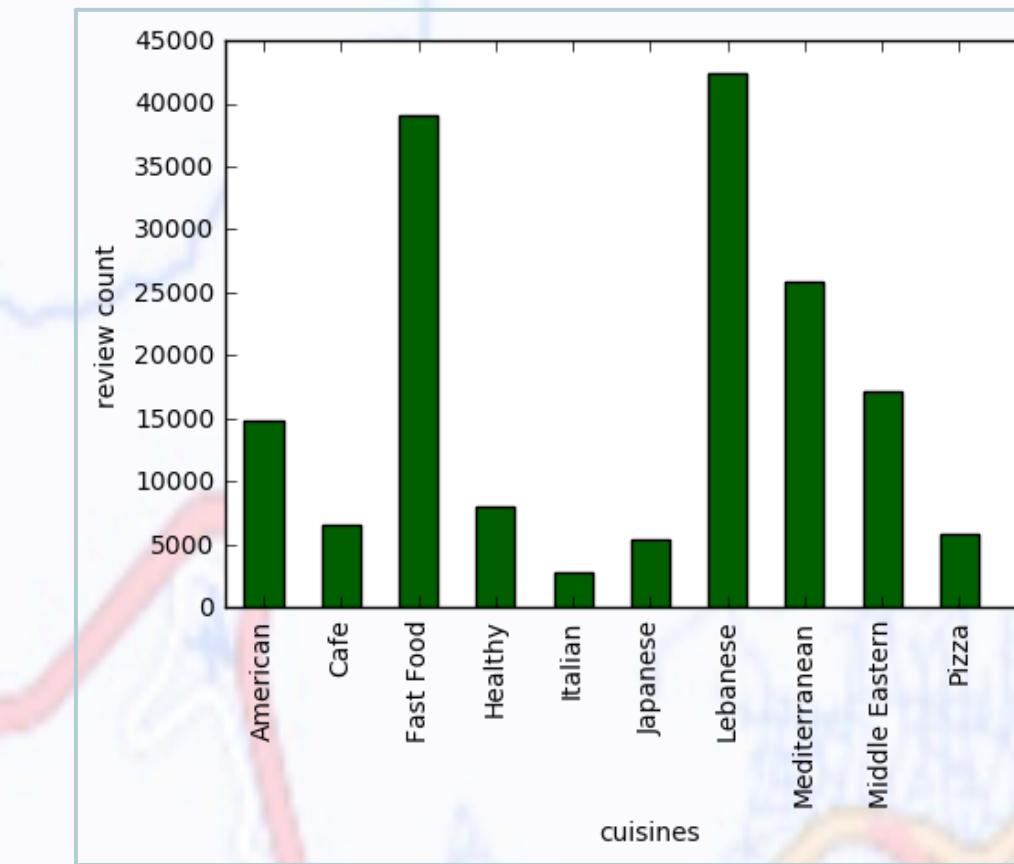


Fig 2. Popularity of cuisines

Lida Karadimou & Freja Mickos, with Professor Betty Anderson

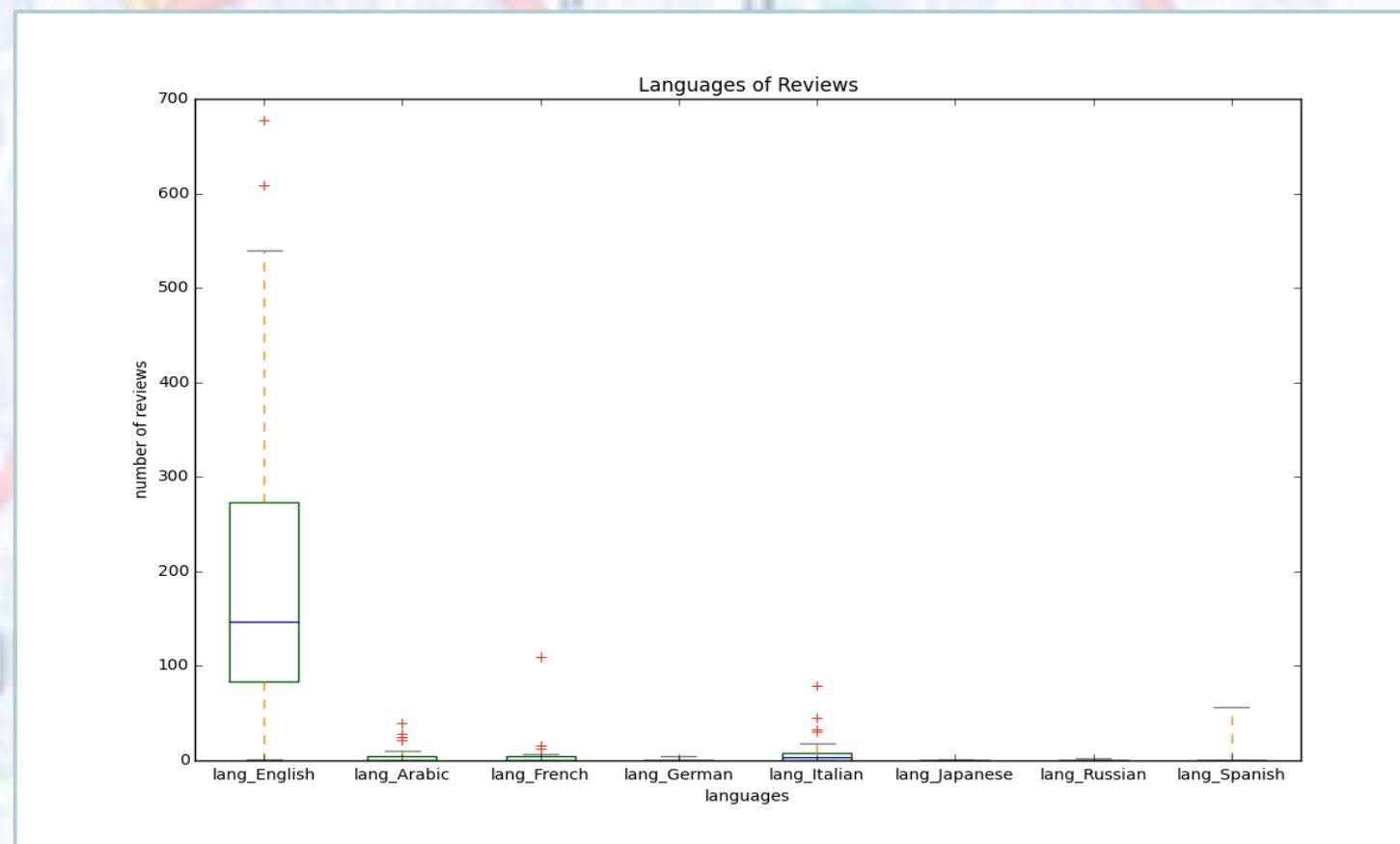


Figure 3: Boxplot of languages of reviews

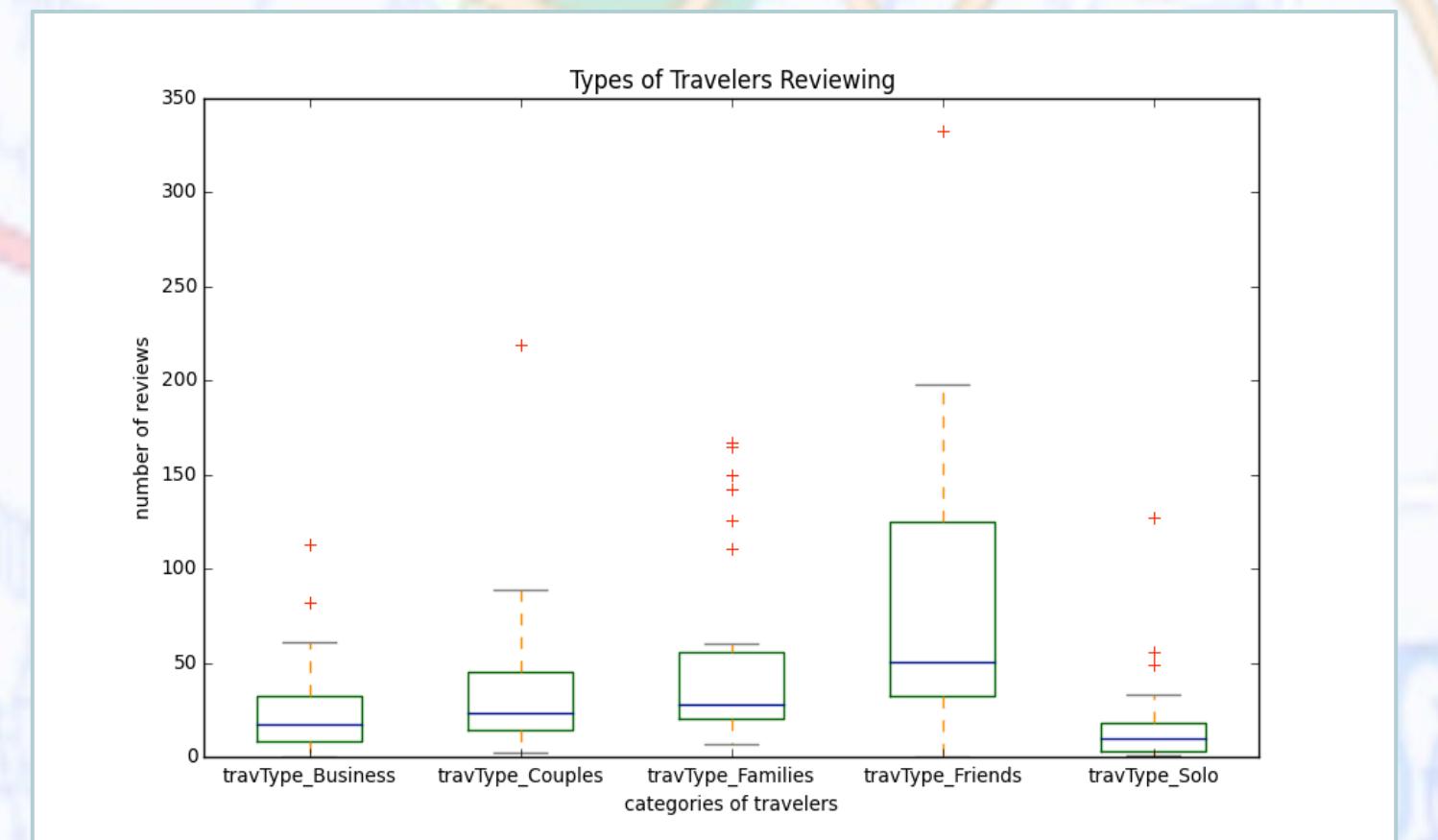


Fig 4. Boxplot of types of travelers

## Analyzing languages and travelers (above):

English is the most popular language among review writers, which was expected as it is the third most widely spoken mother tongue. Arabic, the second most popular language of reviews was used a lot less. Most reviews were written by friends, followed by families and couples, and very few by solo travelers.

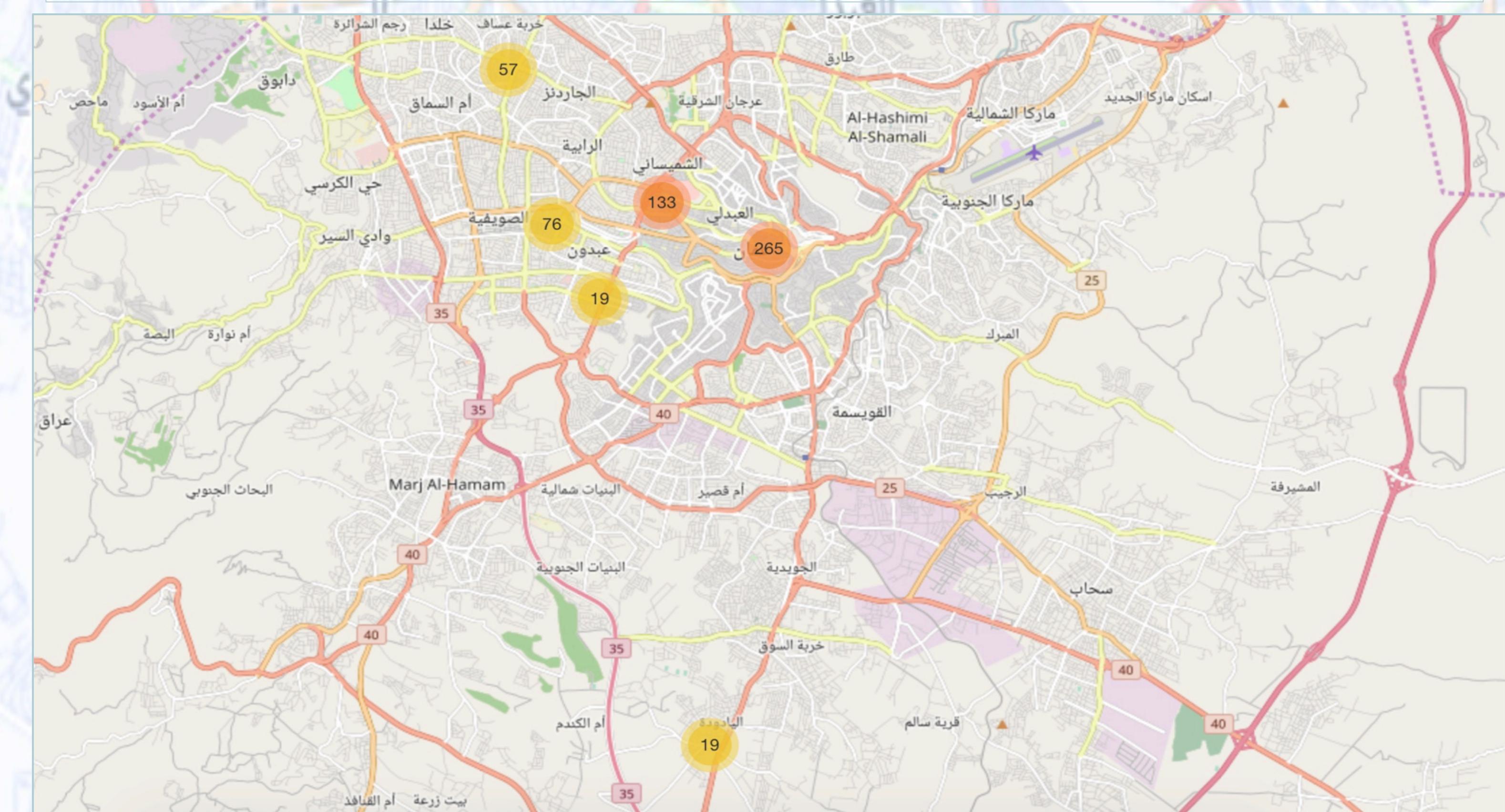


Fig 5. Clusters of restaurants

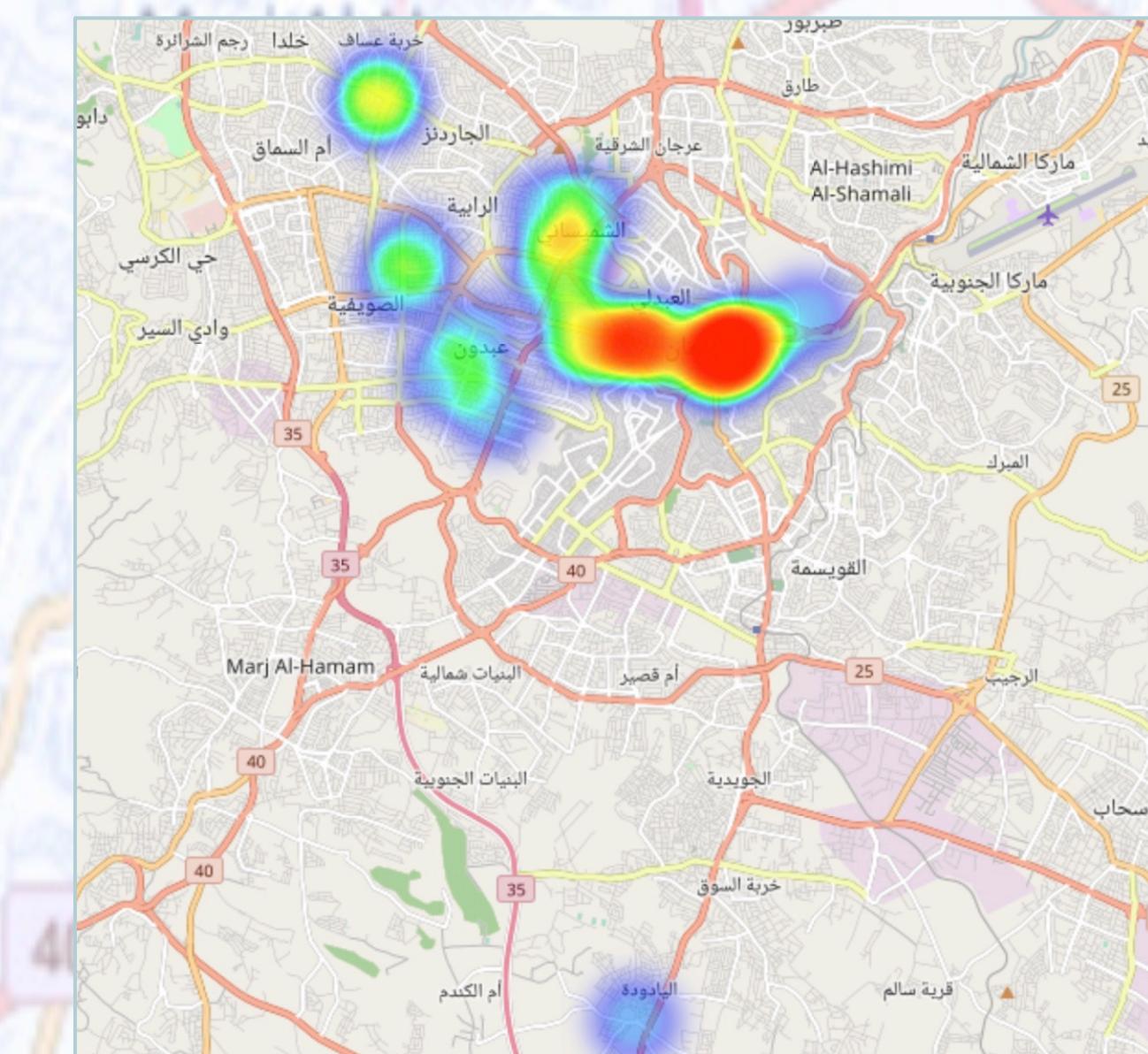


Fig 6-7. Heat maps of restaurants in Amman

## Analysis

While analyzing the patterns, we focused on whether or not some of the variables explain higher numbers of reviews in general, or higher number of reviews in Arabic. We hypothesized that more reviews in Arabic could be an indicator of more locals visiting a place, so analyzing these areas as well as the types of travelers could give us some interesting trends. We used linear regression for our analysis but did not find any significant results.

OLS Regression Results						
Dep. Variable:	lang_Arabic	R-squared:	0.774	F-statistic:	0.769	
Model:	Least Squares	Df Residuals:	163,9	Df Model:	1	
Date:	Tue, 04 Dec 2018	Df Residuals:	163,9	Date:	Thu, 04 Dec 2018	
Time:	02:35:17	Df Residuals:	163,9	Time:	02:35:17	
Nbr. Observations:	346	Df Residuals:	163,9	Nbr. Observations:	346	
Df Residuals:	345	Df Model:	1	Df Residuals:	345	
Df Model:	1	Convergence Type:	nonrobust	Df Model:	1	
Coef. Type:	nonrobust	coef.	0.000	t	0.000	
		std. err.	(95.0% Conf. Int.)			
Intercept	21.279	7.481	-2.848	0.000	149.033 -247.429	
longitude	-20.1122	0.988	-2.081	0.004	-20.289 17.699	
latitude	-22.5964	7.851	-2.878	0.004	-27.289 1.362	
travType_Business	-0.0158	-6.159	0.000	-0.153	-0.079	
lang_Arabic	0.013	0.019	0.000	0.133	0.138	
travType_Couples	-0.0681	0.018	-3.787	0.000	-0.104	-0.033
travType_Families	0.012	0.011	1.111	0.257	0.027	0.097
travType_Friends	-0.0760	0.010	-7.661	0.000	-0.258	-0.056
Omnibus:	21.279	Durbin-Watson:	2.058			
Prob(Omnibus):	0.000	Jarque-Bera (JB):	39.658			
Skewness:	-1.29	Prob(JB):	2.4e-09			
Kurtosis:	4.502	Cond. No.:	1.05e+04			

Fig 8. Regression on number of reviews in Arabic

OLS Regression Results					
Dep. Variable:	review_count	R-squared:	0.996	F-statistic:	1.11e+04
Model:	Least Squares	Df Residuals:	163,9	Date:	Thu, 04 Dec 2018
Date:	Thu, 04 Dec 2018	Df Residuals:	163,9	Time:	02:35:17
Time:	02:35:17	Df Residuals:	163,9	Time:	02:35:17
Nbr. Observations:	346	Df Residuals:	163,9	Nbr. Observations:	346
Df Residuals:	345	Df Model:	1	Df Residuals:	345
Df Model:	1	Convergence Type:	nonrobust	Df Model:	1
Coef. Type:	nonrobust	coef.	0.000	t	0.000
		std. err.	(95.0% Conf. Int.)		
Intercept	101.296	21.279	-4.748	0.000	101.296 -21.279
longitude	102.940	38.232	2.681	0.008	102.940 38.232
latitude	102.940	38.232	2.681	0.008	102.940 38.232
travType_Business	0.000	0.078	15.738	0.000	0.000 15.738
travType_Couples	0.000	0.063	14.181	0.000	0.000 14.181
travType_Families	0.000	0.063	14.181	0.000	0.000 14.181
travType_Friends	0.000	0.063	14.181	0.000	0.000 14.181
Omnibus:	101.296	Durbin-Watson:	2.058		
Prob(Omnibus):	0.000	Jarque-Bera (JB):	39.658		
Skewness:	-1.29	Prob(JB):	2.4e-09		
Kurtosis:	4.502	Cond. No.:	6.896		

Fig 9. Regression on total number of reviews

## Conclusions

The heat maps indicate where restaurants in Amman are clustered, most of which are on a popular tourist street called Rainbow Street.

There is a much greater number of reviews written in English suggesting that TripAdvisor is mainly targeted at tourists. We did not see a significant relationship between the total number of reviews and a certain language in our analysis, which could be due to the nature of the data.

## Future Work

In the future it would be interesting to expand our data set to more than restaurants (e.g nightlife) and compare TripAdvisor with social media sites that are used by more locals and less tourists (e.g TipnTag).