

Myth or Fact? The “Exception” of Chicago Chinatown:

A Comparative Study

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Shiyi Peng

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Abstract

Entering the new millennium, Chinatowns in New York, Boston, and San Francisco have all witnessed an invasion of White newcomers and a decline in non-White residents. At the same time, Chicago Chinatown has been labelled as the only traditional American urban Chinatown that has not gentrified (Abello, 2017; Eltagouri, 2016). So far, however, there are few scholars elaborate on the "exception" of Chicago Chinatown. In this thesis, a new operational definition of gentrification is adopted to analyze three American Chinatowns concerning their gentrification status. Moreover, online information from a social media platform is collected and applied to textual analysis. The two-step analysis shows how gentrification tends to change the composition of Chinatown communities, on their socioeconomic, demographic, and cultural record.

As is indicated by the results, Chicago Chinatown is a gentrifiable neighbourhood which did not experience essential transformation toward gentrification from 2010 to 2017. However, Boston and San Francisco Chinatown neighbourhoods are both rapidly gentrifying neighbourhoods within the same period. The qualitative analysis shows that Chicago Chinatown has a lower level of racial capitalism with a secure attachment to "authenticity". For Boston and San Francisco Chinatown, the marketing strategy of ethnic diversity has prevailed, and they both show a higher degree of multiculturalism. The cause lurk behind such difference is a confluence of multiple socio-historical reasons.

Keywords: gentrification, Chinatown, Chicago, ethnic neighbourhood

Introduction

On October 7, 2016, Ronny Chieng, an Asian American stand-up comedian, showed up as a guest on The Daily Show and unpacked an "O'Reilly Factor" by hilariously attacking a correspondent Jesse Watters when the man was sent to Chinatown for gleaning some political opinions from Chinese people. "They say China in the debate, so you go to Chinatown? In New York? So when they mention Mexico, you send someone to Taco Bell? Chinatown is nothing like China!", Chieng furiously argued. Over the last decade, warnings about the gentrification of Chinatowns in the U.S never cease. The decreased Chinese population, surging housing market prices, and displacement of low-income Chinese residents have all been essential concerns for urban planners, Asian Americans and scholars.

Chicago Chinatown has long been touted as "the exception" in terms of gentrification. Moreover, it is considered one of the "oldest and most vibrant ethnic neighbourhoods" in the city of Chicago (Lutton, 2019) with a steady influx of Chinese immigrants and "unwillingness to bend to gentrification" (Clark, 2017). However, with the definition of gentrification remains debatable, how to best quantify the gentrification of an ethnic neighbourhood is still worth discussing. First, the past quantitative analyses on neighbourhood-level gentrification are limited in projecting "meaningful estimates". Second, obtaining data on an exclusive temporal and spatial scale can be tricky (Easton et al., 2020). Third, the peculiarity of an ethnic community should be incorporated into current experiences.

As Easton and his colleagues suggest, more novel sources should be considered in gentrification study. Also, the social media textual analysis has been proved to help "examine a variety of resources employed in narrating the recent transformation" of these neighbourhoods and also contribute to place-making (Lou, 2010). Thus, the symbolic image

of Chinatown can be portrayed from social media texts in aid to probe deeper into its character in the eyes of mainstream Americans.

Therefore, this research will bring answers to these questions: what socioeconomic and demographic features of Chicago Chinatown show its uniqueness? Is it reasonable to establish a relation between social media and physical neighbourhood? If it is, how does it reveal the process of gentrification? Based on the results of previous analyses, what might contribute to the current booming of Chicago Chinatown?

Literature Review

It has been over fifty years since Ruth Glass (1964) first coined the term "gentrification" which embarks the study of gentrification as an academic field. Through its fifty years' development, debates over both the definition of gentrification and methodological approaches applied to it never settle down. First appearing as a socioeconomic phenomenon, gentrification tends to have different causes, trajectories, and effects under different contexts.

Glass (1964) does not pinpoint a constraint phenomenon. However, instead, she depicts a profound structural change in post-war Britain where standardization has featured in every aspect of social life, in an ostensibly diverse culture, and forms "illusions of togetherness". Gentrification occurs in such times when the traditional social boundaries have been crossed through some activities, including the abandonment of anti-urban bias. She credits the manifestations of gentrification to a "new diversity of consumption", which is destined with the rise of production force (Zukin, 1998). Later scholars have tried to understand and interpret the causes of gentrification in combination with other disciplines. Two major competing categories of explanation to explain gentrification gradually came into being. One is the "production or supply" theory, which emphasizes that economic and political conditions enable the rise of a global service economy, thus satisfying the need of "the new middle class" who is the significant component of gentrifiers. Among the production side scholars, Nelson (1988) describes gentrification as a process featuring residential and commercial reinvestment which is initiated by private-sector in inner-city areas, and it later draws more people with higher socioeconomic status to move into these areas. Neil Smith (1979) takes a very assertive stance by putting forth a 'rent gap' argument

that it is the "rent gap" between current and potential land rents that offer opportunities for private investors to jump in.

The other side is dubbed as the "consumption or demand" side, which puts gentrifiers in the central stage by focusing on "a set of cultural changes" reflecting gentrifiers' taste for specific residual environments (Zukin, 1987). For instance, David Ley (1986) strongly rejects the "rent gap" theory by conducting a regression analysis on socioeconomic variables of 22 cities in Canada with a conclusion pointing to the most influential variable on gentrification being the value and attraction of urban amenity. Kennedy and Leonard (2001) add one point to the gentrification definition that "the essential character and flavour of the neighbourhood" must be changed for a neighbourhood labelled as gentrified.

In recent decades, more scholars thread these two theories together when they are probing into gentrification problems. Christopher Mele (2000) suggests that through manipulating art scenes, more first-wave gentrifiers would be attracted to those places and so that "municipal agencies" would be profited. Brown-Saracino (2010) also suggests that, besides these two categories, we should think about the role of culture in gentrification, in case that some gentrification scholars "do not concur about what that role is". It is yet unclear whether culture is one of the driving forces of gentrification or "is used to justify it after the fact". Likewise, the University of Pittsburgh Keywords Project defines gentrification as "an unplanned process where middle class moves into a poor urban area with the intent of improving it for their benefit". This interpretation also attempts to incorporate both sides of view.

Case Studies

As the old worldly obsession with suburbanization gradually dies down and switches to "urban aspirations" (Glass, 1964), cities are triumphing over anti-urban bias. They were

welcoming "the return of affluent households to the central city" (Vigdor, 2002), gentrification spawns a profound shift in the social hierarchy. However, the abundant implications of gentrification shrink as the time we approach it through quantitative case studies as we can only measure each geographic area against some economic and demographic metrics set ahead. Gentrification is a dynamic social process, while our observation on it is relatively static.

Efforts are being made in this regard. Most studies consider gentrification occurs at neighbourhood-level within central urban areas where the poverty is declining, and more middle- and upper-class population settles in (Hwang and Ding, 2016). Accurately, Jacob L. Vigdor (2002) illustrates the population and demographic trends associated with gentrification through an analysis of census tract statistics during seven years in Boston. In his article, pre-gentrification neighbourhoods tend to experience an outflow of population, a surging increase in housing vacancy, a small proportion of both college students and professional workers in the population, and a median income below the citywide level. A new demographic transition indicates that gentrification accompanies an increased population, a higher proportion of people with a college degree or professional occupation, an increased proportion of white people, increased median income, and plummeted vacancy rates. In other quantitative gentrification analyses, some of these metrics also serve as the "basic stylized facts" (Hammel and Wyly, 1996; Bostic and Martin, 2003).

Effects of Gentrification

There is a question that concerns most gentrification scholars: Is gentrification harmful to disadvantaged households? More often than not, gentrification is a negative term (Vigdor, 2002). Displacement is the sinful consequence induced by gentrification. It has been immensely discussed in academic publications as "previous attempts to identify

gentrification's distributional consequences focus almost exclusively on residential displacement". Slater (2009) asserted in his article to reject claims which beautify gentrification. However, there are some articles claim "gentrification is no longer a dirty word" due to its effect in reducing crime rate and bringing more amenities (Nevius, 2014). For instance, Vigdor rejects a causal relationship between gentrification and displacement. A positive and significant relationship between bohemia and concentrations of the high-technology industry has been confirmed in Florida's article (2002). She also indicates that gentrification invokes a bohemian culture that could benefit creativity, diversity, and vibrant of a city, according to Jane Jacobs' theory. Thus, It is worth more attempts to find whether gentrification is a cause or a side-effect of displacement.

The Gentrification of Chinatown

Chinatown, as a long-standing traditional urban neighbourhood, has been recognized to be primarily gentrified in recent decades. Initially formed out of racial discrimination, Chinatowns are 'segregated camps' where the minority group voluntarily, or involuntarily "isolates themselves in order to avoid insults" (Yuan, 1963). Chinese residents concentrate on "close-knit" communities to be protected from prejudiced legislation, and outsiders were once "neglecting" Chinatowns for investment during the suburbanization period. As racial discrimination and prejudice die down, Chinese communities do not need to take up the defence as much as before (Yuan, 1963) and so that paves the path for gentrification. When "urban aspirations" fuel Chinatowns, they are quickly turned into one of the hottest neighbourhoods in big cities such as Boston, New York, and Philadelphia. In these long-standing ethnic enclaves, new complexes, apartments, and amenities are replacing old ones through cunning plans of reinvestment and reconstruction. They all see a surging increase

in housing rent that forces some of the former inhabitants to move out, leaving the Chinese to go from "a majority to a minority" (The Atlantic, 2019).

There is another crucial camp taking on a "cognitive" viewpoint when observing Chinatowns. Kay Anderson (1991) puts in her study on Vancouver Chinatown that "the idea of racial type was a social constraint rather than a biological fact". Therefore, "Chinatown" should be perceived in a capitalist society discourse. Works that have been done to picture the 'cultural abstraction' are mainly based on fieldwork materials (Anderson, 1991; Lai, 1988), yet few scholars have used social media platforms to collect data. Except for interactions and ties between online users (Gibbons et al., 2017), the content of Tweets can also be explored in studying the relations between gentrification and social media networks.

It seems that gentrification in Chinatowns is the primary cause of displacement, which undoubtedly does harm to the "unprivileged" groups. Among all urban Chinatown neighbourhoods in the U.S., Chicago Chinatown has been touted as a "model for Chinatown survival in the U.S.". Part of the reason is that Chinese residents in Chicago Chinatown effectively resist white-displacement by selling their home only to Chinese people (Chicago Tribune, 2016). However, so far there is little more comprehensive research unveiling Chicago Chinatown's myth - in what aspects is Chicago Chinatown considered different from other gentrified Chinatowns and what could be explanations for that.

Methodology

Analytical Perspectives

Spatial, physical, demographic, and economic dimensions have all been used to describe gentrification (Zuk, 2017; Smith, 2002; Ley, 1986). In my case, for the operational definition of gentrification, I follow the work of Ley, Hwang and Ding, by refining gentrification to characteristics of demographic data changes. To be specific, I take a quantitative analysis of 11 important demographic variables that were proved to be correlated with gentrification in past research. All the values of these variables are collected on three census tract scales which respectively cover the major residents of Chicago, Boston, and San Francisco Chinatown.

Although some studies which are restricted to the gentrification of specific cities or neighbourhoods have been criticized as "noncumulative case studies" because critical elements such as the theoretical perspective and methodology can be meaninglessly eclectic (Ley, 1986), inferences can still be made among neighborhoods which feature by similar demographic profiles. In such a case, three Chinatown neighbourhoods will be proper objects in the gentrification study so that we can avoid the "eclectic pluralism" together with the statistical instability and complexity of study with a large sample.

Two parts are included in quantitative analysis: 1) a principal component analysis (PCA) on 11 demographic variables describing three Chinatown neighbourhoods from 2010 to 2017. 2) applying Spearman's correlation algorithm to each pair of variables to find out which one is the most strongly associated with gentrification identifiers.

Gentrification has been seen as "a tool, goal, outcome or unintended consequence" of rehabilitated and redeveloped neighborhoods which were considered "unprivileged" (Curran, 2007). In this sense, quantitative analysis on census demographic data can be quite limited,

because census-based measures sometimes misidentify middle- and upper-income neighbourhoods as gentrifying. Also, data of details either does not exist or require some fieldwork that is hard to accomplish (Kreager et. al, 2011). In a word, the gentrification study requires observational data as well as quantitative analysis.

In order to increase the validity of the quantitative analysis, I conduct a qualitative analysis using an outsourced Twitter dataset including approximately 90,000 tweets created between 2010 to 2017 with words "Chicago Chinatown", "Boston Chinatown", or "San Francisco Chinatown" in them. This method provides a media profile of each Chinatown, and it enables us to "describe how other kinds of capital are transformed into symbolic power" (Lou, 2010). The social media textual analysis can not only help "examine a variety of resources employed in narrating the recent transformation" of these neighbourhoods but also contribute to place-making (Lou, 2010). It has been affirmed in these two parts of the analysis that the increasing influx of Chinese population not only maintains their majority with regard to quantity, but they also dominate the "tastes" of their neighbourhood by deviating them from the western middle-class. The Chicago Chinatown, compared to the other two, still keeps a higher level of "authenticity" instead of a "staged" one (Roy, 1993). Following such findings, I resort to a bigger context - the city of Chicago - to develop my hypothesis about the driving forces of gentrification in Chinatowns.

In this thesis, three research questions are answered: 1) Is Chicago Chinatown gentrifiable, gentrifying, or gentrified, according to an operational definition of gentrification? 2) How is Chicago Chinatown, as a conceptual image, being portrayed on Twitter? 3) What might be the explanations of the exception of Chicago Chinatown?

The Operational Definition of Gentrification

This thesis consists of a comparison study of gentrification among three Chinatown neighbourhoods in the U.S.. Operational definitions are set out for Chinatown neighbourhoods, gentrification, and explanations as follows.

The Chinatown neighbourhood is defined as the Census tract with available data from 2010 to 2017. Each of them covers the majority of the target neighbourhood and whose statistics have been applied in previous community research. The variables are total population, percentage of Chinese people, percentage of White people, percentage of Black people, median household income, the share of people above 25 who receive bachelor's degrees or above, median monthly gross rent, the percentage of people who live below the poverty line, the share of people who commute by public transportation, and the share of people who work in management, business, science, and arts occupations. As for target geographic zones, Chicago Chinatown is Census Tract 8411, Cook County, Illinois, Boston Chinatown is Census Tract 702, Suffolk County, Massachusetts, and San Francisco Chinatown is Census Tract 118, San Francisco County, California. Even though the tracts don't perfectly match with the boundaries of all three Chinatown neighbourhoods, most of the past quantitative gentrification research on neighbourhoods still rely on the census-level data because it integrates the most comprehensive demographic data comparing to other databases. Among the three ones, Boston Chinatown sprawls to Census Tract 701.01, in which lives around 1844 Asian people according to ACS 5-Year Estimates. Since the Asian population only occupies 28.4% in this tract, I only use data of Census Tract 702 for the Boston Chinatown group.

I follow the research of Xu (2013) by considering a tract to be gentrifying "if it experienced above citywide median increases in its median gross rent and an above citywide

median increases in its share of college-educated residents" above 25 years old. A tract is gentrifiable if it has "a median household income below the citywide median household income at the beginning of a period". The changes in rent cost reflect development and investment in the local amenities. The changes in the share of college-educated residents reflect the degree to which "young professionals" have contributed to the community character. Through measuring the three variables, we would take both "indicators of housing market activity" and "changing household status" (Cohen, 2019) into consideration.

A social status index reflecting the degree of gentrification is calculated for each target neighbourhood. The social status on a year unit is a combination of median household income, monthly gross rent, and the share of the college-educated population above 25-year-old. I rescale the values of the three variables and add them up to be the social score. The gentrification index is the difference between the 2010 and 2017 index. The social score indicates the degree to which a tract is gentrifying.

The gentrification of the two neighbourhoods is measured in 7 years from 2010 to 2017 based on ACS 5-Year Estimates data. Group 1, 2, 3 are for Chicago Chinatown, Boston Chinatown, San Francisco Chinatown respectively.

Comparative Analysis

The Quantitative Analysis

A principal component analysis is used to how each group of data tends to change in the 7-year period. Principal component analysis (PCA) is a technique that is widely used for feature extraction. The least essential variables will be dropped, and the remaining variables will represent most of the data information. By using PCA, I make sure all variables are independent of others.

From the PCA plot of the 11 variables of three neighbourhoods in 7 years (see appendix 1), we can see a clear distinction between the patterns. in group 1, the yearly data are clustered together on the x-axis, which represents the principal component 1 and explains 84% of the total variation. For group 2 and group 3, all seven-year data spread on a broader range on the x-axis, showing a much higher variation during the period.

Taking median household income (MHI), monthly gross rent (MGR), and share of college-educated population above 25-year-old (SCP) as the three core variables to measure gentrification, Chicago Chinatown is gentrifiable as the MHI keeps below than the citywide value. The MHI of Chicago Chinatown neighbourhood grows at 4.5% from 2010 to 2017, lower than the citywide growth rate 12% in the same period. On the contrary, both Boston Chinatown and San Francisco Chinatown underwent an above citywide median percentage increase in their median gross rent, at 36.3% and 30.1% respectively. The SCP in these two neighbourhoods grows surprisingly fast as well. For Boston Chinatown, it grows at speed more than twice of that of citywide and for San Francisco Chinatown, it grows at 170%. From these observations, we can define Boston Chinatown and San Francisco Chinatown as gentrifying Chinatowns since they are experiencing dramatic transformation while the MHI and MGR were still below the citywide median in 2017.

I use a social score formula adapted from Ley's Social Score formula by adding up yearly data values of MHI, SCP, and MGR after rescaling them. The social score of group 1 went from 7.4 in 2010 to 13.4 in 2017 with a peak at 19.1 in 2011; The social score of group 2 went from 5.6 in 2010 to 25.9 in 2017 with 2017 being the highest one; The social score of group 3 went from 5.2 in 2010 to 30 in 2017. Since the Social Score illustrates an intra-tract change, both Boston Chinatown and San Francisco Chinatown show a larger scale of change than Chicago Chinatown. According to Ley, this difference should reveal that Boston Chinatown and San Francisco Chinatown clearly show more robust and more typical gentrification progress with regard to the MHI, SCP, and MGR as they went through a surge in the social score and Chicago Chinatown does not expose itself to be a salient gentrification character.

Simple correlations between all 11 independent variables are shown in appendix. 1) In group 2 and group 3, the share of the White population is positively associated with the Social Score, with the correlation score being 0.968 and 0.696. In group 1, it is the share of the Chinese population that is positively associated with the social score 2) In group 2 and group 3, the share of quaternary labour is positively associated with the Social Score while no such correlation is found in group 1 3) In group 1 and group 3, the share of arts, entertainment and recreation, and accommodation, and food services are positively correlated with the social score, while it is the opposite for group 2. Clear correlations are shown in Table 1.

Table 1

Simple Correlations between Variables

correlation	Chicago	Boston	San Francisco

+		WP (0.968)	WP (0.696)
+	TP (0.014)	TP (0.870)	TP (0.764)
+		QL (0.903)	QL (0.548)
+	CP (0.323)		
-		CP (-0.718)	CP (-0.112)
-	WP (-0.018)		
-	QL (-0.013)		
-	PP (-0.444)	PP (-0.625)	PP (-0.862)

Note. WP: share of White population; CP: share of Chinese population; TP: share of total population; QL: share of quaternary labor; PP: share of population living below the poverty line

Table 1 shows similar patterns of group 2 and group 3 and the deviation of group 1. We may infer that for Chicago Chinatown, Chinese population are the driving force of economic development while in Boston and San Francisco Chinatowns, the White population are the dominant force.

Gentrification in some neighbourhoods may also be unveiled through industry adjustments, not in a decisive way. As Luk stated in his article (2006), the urban Chinatowns feature a healthy tourist function. The pillar industry in traditional Chinatown neighbourhoods is services, including accommodation and food services. In Chicago Chinatown, the amount of accommodation and food services labour plummets to 588 in 2017 from 826 in 2010 while in Boston Chinatown, the number nearly doubles. San Francisco does not witness a notable change in this industry.

It is interesting to see that the number of quaternary labour does not strongly correspond to the Social Score increase in Chicago Chinatown. The development of Chicago Chinatown neighbourhood is accompanied by a 10% decrease in food preparation and serving related occupations. In comparison, there is only a 3% increase in management, business, financial, computer, engineering, and science occupations. It is reasonable to make a hypothesis that the consistently incoming Chinese residents control the rent price, dominate the labour market, and nullify occupations that are more inclined to be taken up by White people.

Chinatown Image on Twitter

Human geographers hold two perspectives about traditional urban Chinatowns: an ethnically segregated inhabitat and a cognitive identity in a “macro” racial ideology (Luk, 2005). Past gentrification research has extended to gentrifiers’ personal preferences to better amenities and cultural character of a community when they choose to relocate to a new residential place. Therefore, how communities’ profiles on social media illustrate their attraction to the potential gentrifiers is worth discussing. Also, the role that social media play in self-representation and community building has been affirmed in many research works. However, it’s in lack of sufficient research in which scholars talk about urban gentrification from the social media perspective.

The following analysis is based on tweets published from 2010 to 2017 with hashtags or keywords “Chicago Chinatown”, “San Francisco Chinatown” and “Boston Chinatown”. From social media texts, I explore how the Chinatown community presents itself online and how the outside world perceives its image during a period when prominent gentrification is happening. By capturing differences between the online image of Chicago Chinatown and the other two, I come up with some explanations of non-gentrification in specific areas.

First, Latent Dirichlet Allocation and TF-IDF (see appendix 2) are used to specify topics constituting each document and return the probability distribution of words that are related to the topics. The most related words to each topic are listed below.

Table 2

Frequent Words in Major Topics

topic	Chicago	Boston	San Francisco
1	new, year, food	st, mbta, station	love, new, year
2	explore, park, like	new, year, blog	restaurant, new, dragon
3	photo, town, posted	center, time, street	photo, tea, shop
4	square, cermak, photo	bed, gate, photo	bus, muni, fight
5	gate, sum, dim	public, art, gentrification	ghost, festival, moon

By using TF-IDF, we capture keywords that people talk the most online about these three neighbourhoods. For group 1, the most frequent words are describing traditional Chinese culture, yet for group 2, the top frequent keywords are about transportation and redevelopment. Group 3 tends to stand in the middle. It is therefore assumed that gentrifiable neighbourhoods would reserve a more clear and firm "authenticity" of an exotic culture. In highly gentrifying and gentrified neighbourhoods, more elements, such as transportation and art establishments, will be illustrated on their online profiles. In other words, less gentrifying

or gentrifiable Chinatown neighbourhoods would maintain their original identity as a non-native participant of the cultural hegemony (Luk, 2005).

Word2Vec is a neural network auto-encoder that describes corpus words in their local linguistic contexts and learns their discursive culture by exploring the locations. Converted to word vectors, words are projected to different semantic dimensions so that we can detect patterns in different documents or corpus.

I map the first group of target words - occupations including "students", "banker", "chef", "bartender", "teacher", "worker" and the second group of target words - "artist" and food including "pastry", "dumpling", "hotpot", "coffee", "brunch", "tea" against two groups of dimensions - race (Chinese and White) and class (rich and poor).

It is somewhat surprising to see that traditionally high-paid occupation like a banker is strongly associated with Asian or Chinese for group 2 and group 3. Things are quite the opposite of group 1. For group 1, the most "Chinese" or "Asian" occupations are "chef", "student", "cook" and "artist". "Police", "officer" and "banker" are closer to the White people. Also, in group 1, "artist" and "banker" tend to be richer than other occupations.

It is also interesting to observe how food culture is embedded in the macro culture. In group 1, only "tea" is outstandingly pointing to "Asian" and "Chinese" with "beer", with "cake" and "dumpling" pointing to "White". In group 2 and group 3, typical Chinese food like "dumpling" and "tea" are not contingently noticeable in the "Chinese" and "Asian" context. Moreover, "coffee" and "beer" point to "rich" while "dumpling" and "tea" point to "poor" in group 1. In group 2 and group 3, all words tend to mix about concerning their proximity to either race and social class.

From the word vector projection, we see clearly that Chicago Chinatown maintains a more salient identity of the "otherness" in the American society that has been established

since the early 1900s when Chinese labour in the Chinatown neighbourhood aggregate on non-professional occupations and White people take up more high-paid, quaternary occupations. Otherwise, in Boston and San Francisco Chinatown, not only other ethnic groups have flooded in so that the distribution of occupations in different industries have been altered, that distribution in Chinese labour has also changed with a growing share of Chinese people start obtaining professional jobs. As for food, it is indicative in this analysis that in Chicago Chinatown, "dumpling", "tea" and "hotpot" are more of a Chinese preference while in Boston and San Francisco Chinatown, strict boundaries have been discarded between ethnic groups in term of food consumption.

Link to Gentrification

The process of gentrification in these areas is following 'authentic ethnicity' provided for customers in a time when the branded economy is rapidly developing (Stock and Schmiz, 2019). Thus, It is insightful for us to understand the role of ethnic food entrepreneurs who may be the trigger of gentrification as ethnic cuisines are a pillar industry of Chinatown neighbourhoods in the U.S.

From the qualitative analysis on Tweets about the three Chinatown neighbourhoods, online users' positioning towards Chicago Chinatown indicates that it is an orientalized ethnic neighbourhood that does not assimilate well into the city. First, the consistently incoming Chinese residents dominate the "tastes" of their community, especially when the foreign-born newcomers are speaking different Chinese dialects and require different exotic flavours at Chinatown restaurants. Therefore, cuisines in Chicago Chinatown are neither required to present "staged authenticity" nor to "create new tastes" to participate in a marketing strategy of the migrant economy, because the most proximate and important clienteles are not "young creative professionals" who need "the culinary experiences of migrants' countries of origin".

On the other side, Boston and San Francisco Chinatown are losing incoming Chinese population, and White people are gradually dominating the "tastes" of these neighbourhoods. On the one hand, it embodies a political discourse of "multiculturalism" and "cosmopolitanism" which encourages mixing cultural products, and on the other hand, it equals to "a commodification of consumable authenticity" and a "romanticized invention" of an ethnic enclave (Zukin, 2010). In such spaces, the ethnic food entrepreneurs create new localities through decoration, atmosphere, and food style to "reproduce a stereotype of Orient" which is assumed by customers. In a word, it is the substantial Chinese population (who come from various regions of China) that resist commercial gentrification of their cultural authenticity by sustaining a real economy instead of a "symbolic one".

As diverse and "integrated" both become the objective of city planning, Chicago Chinatown stands out as an exception that survives in its way. A larger context also has contributed to the self-isolation of the Chinese community in the city of Chicago. Inherited from its inner-city racial/ethnic segregation tradition which came into being a century ago, contemporary Chicago thrives with a new distribution of inequality in the epoch of globalization, featuring with some paradoxical characteristics including increasing racial and ethnic diversity and rapid decline in non-gentrifying city neighbourhoods (Hague, 2017). Within the re-shaped wealth distribution map, the West Side and South Side are still inflicted with poverty and crime while the North Side has a much higher average income. The Chinatown neighbourhood has witnessed an increasing level of poverty and a decreasing median household income from 2010 to 2017, making it indeed becomes one of those declining non-gentrifying neighbourhoods.

Yuan (1863) concludes in his New York Chinatown study that the racial prejudice against Chinese people is what spurs 'voluntary segregation' through which the Chinese

community consolidates upon an enclosed business and social structure. Building upon that, the New York Chinatown turns out to be a tourism spot for people to experience Chinese culture and leave with only a small portion of Chinese residents, as the racial prejudice diminishes in younger Chinese generations. He then suggests that Chinatowns will experience a change of functions as the level of interaction between Chinese and other American ethnic groups increases. Therefore, the ostensible booming of Chicago Chinatown may be as a result of continuing discrimination from the other districts in the city and other cities in the U.S. in which racial inequalities still go on under the "integrated" facade. With the overwhelmingly cosmopolitan and multicultural atmosphere, a share of Chinese immigrants, who normally obtain high education, acquire professional skills and speak fluent English, would be able to relocate their homes from Chinatowns to a more civilized and decent neighborhood, to accomplish the "assimilation" to the American society that they are expected to. The other portion of Chinese people, on the other hand, without competitive profiles in the American labour market, prefer living with people of the same race so they can support each other and be protected under the ethnic community. The latter one is appropriated in Chicago, a city in which racial segregation and diversity ranks the top in the U.S. and therefore shelters people from veiled prejudice threats.

The development, or say, the distinction of Chicago Chinatown is a confluence of multiple forces - the top influential organizations (Clark, 2016), diversity of inner-ethnic groups, and appropriateness of self-segregation. However, as is mentioned in Yuan's essay, the voluntary segregation does not necessarily repress assimilation. In Chicago, racial assimilation takes a longer time than it is in other metropolitan cities, partly due to the voluntary segregation activities.

Conclusion

In terms of neighbourhood-level median household income, median monthly gross rent, and the share of a highly educated population, Chicago Chinatown has not experienced any dramatic change toward an upscale community from 2010 to 2017. It does not refine itself to the same destiny of other American traditional urban Chinatowns which have almost gone through re-shaping. Besides, Chinese residents in Chicago Chinatown remain the dominant group with a consistent labour distribution in industries and a strong association with traditional Chinese food culture. Comparing to Chicago Chinatown, both Boston and San Francisco Chinatown underwent a grand socioeconomic and demographic transformation from 2010 to 2017. Gentrification in American Chinatowns is bound with socioeconomic, demographic, and cultural alterations.

Although non-gentrification prevents displacement to a great extent in Chicago Chinatown, it does have a negative side - the persisting poverty rate, frequent crime, and under-developed physical environment. The backstage characters leading Chicago Chinatown to its current stage are multiple. First, the stable influx of Chinese population defends their neighbourhood to be an "authentic" enclave where community organizations, restaurants, and real estate agencies have to take the residents' "tastes" as the priority. Thus, the potential gentrifiers find the Chinatown to be an "unassimilated" community which is not able to be tailored to their fantasy about Chinese culture. In other words, it is not an ideal place to live in for the middle- and upper- class. Second, as a city with highly racial segregation, Chicago appropriates the "voluntary segregation" of an ethnic group that is disadvantaged in American society. In the dominant "multiculturalism" and "cosmopolitanism" dialogue, Chicago Chinatown acts differently than other urban Chinatowns, by legitimating the existence of "the otherness".

Admittedly, gentrification is normally associated with negative consequences when the gentrifiers and investors are accused of intentionally displacing unprivileged residents. Whereas, it does contribute to cultural hegemony and economic redevelopment. It may take a longer time for Chicago Chinatown to cross the "color line", and that required a joint force from all ethnic groups.

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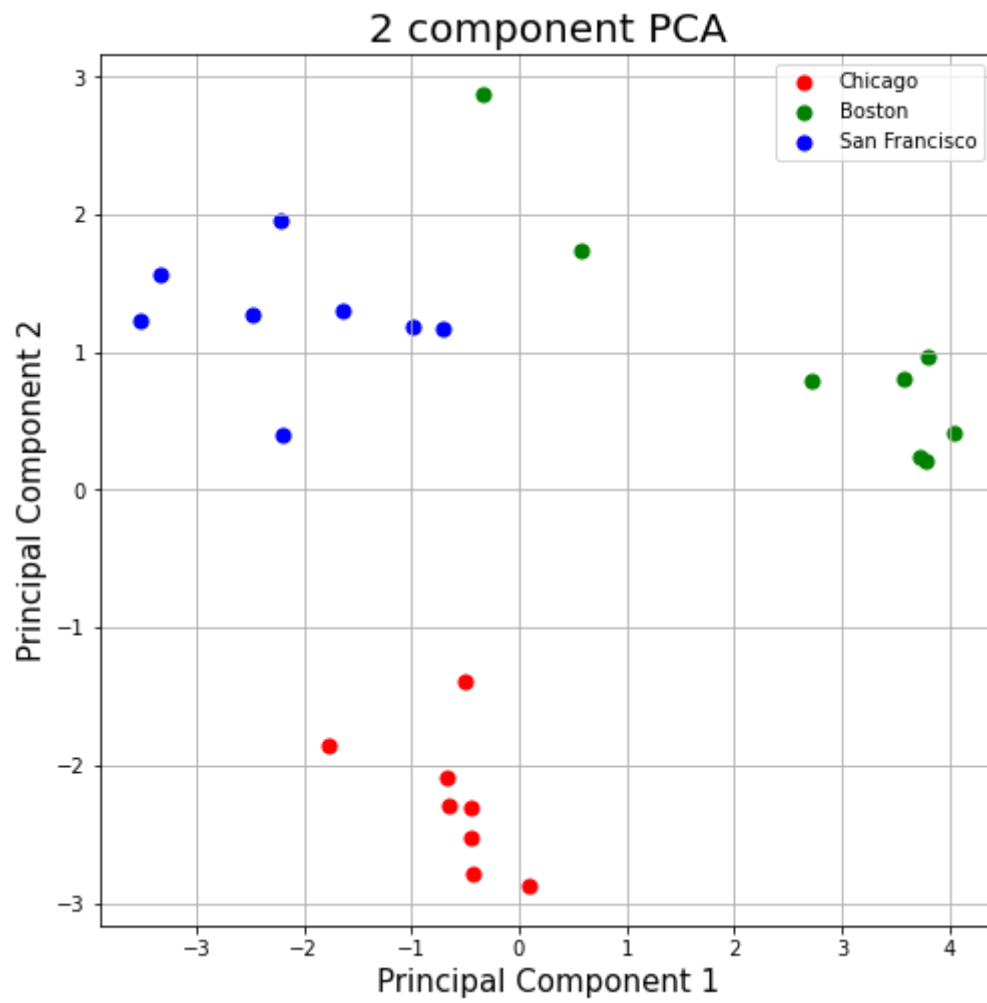
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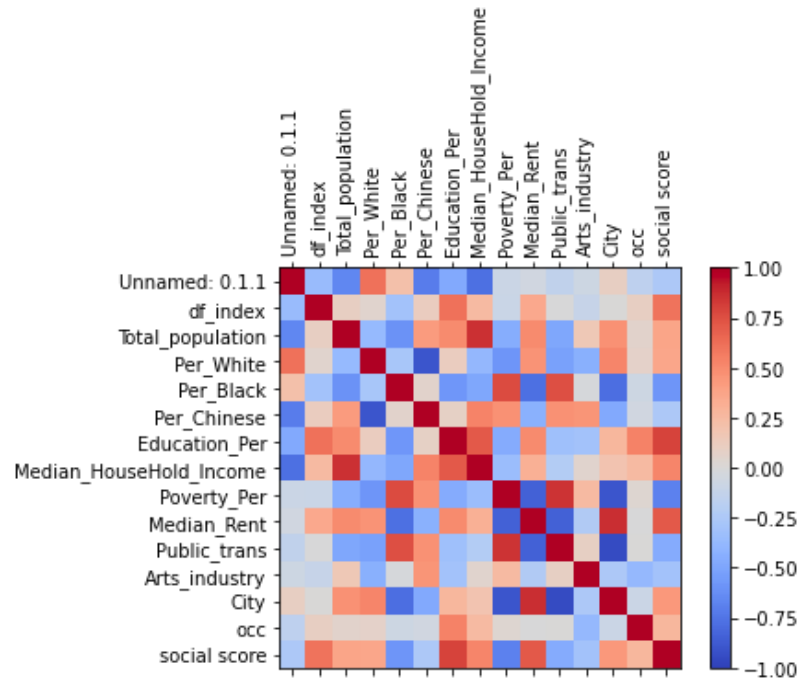
Appendix 1

PCA Plot of Three Chinatown Neighborhoods

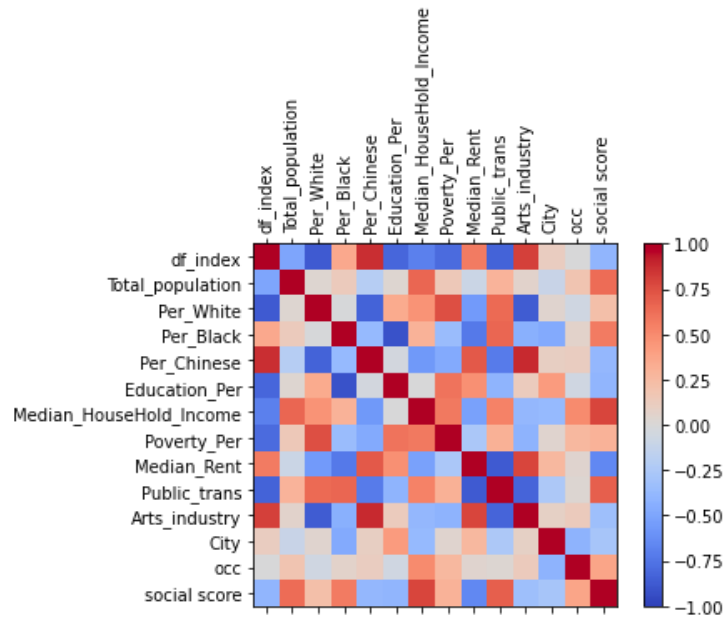


Appendix 2

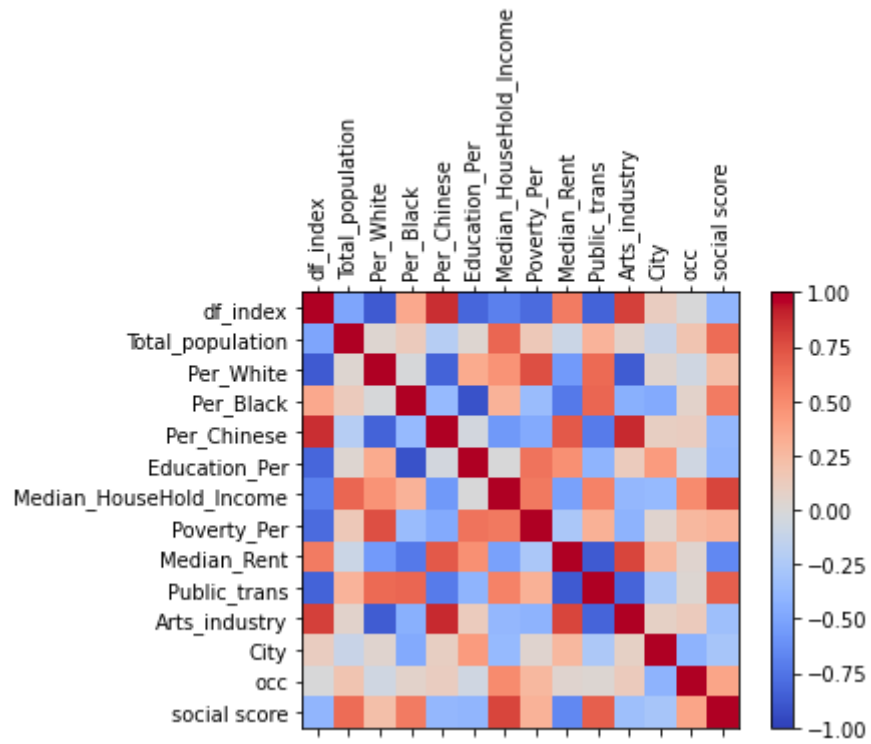
Simple Correlations of Group 1



Simple Correlations of Group 2

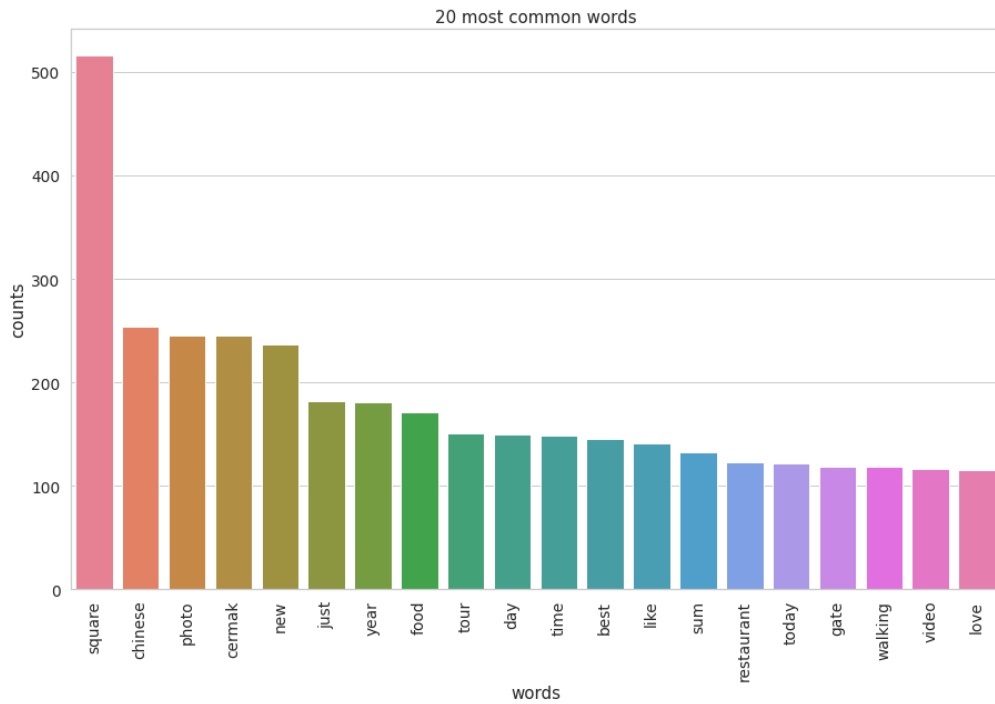


Simple Correlations of Group 3

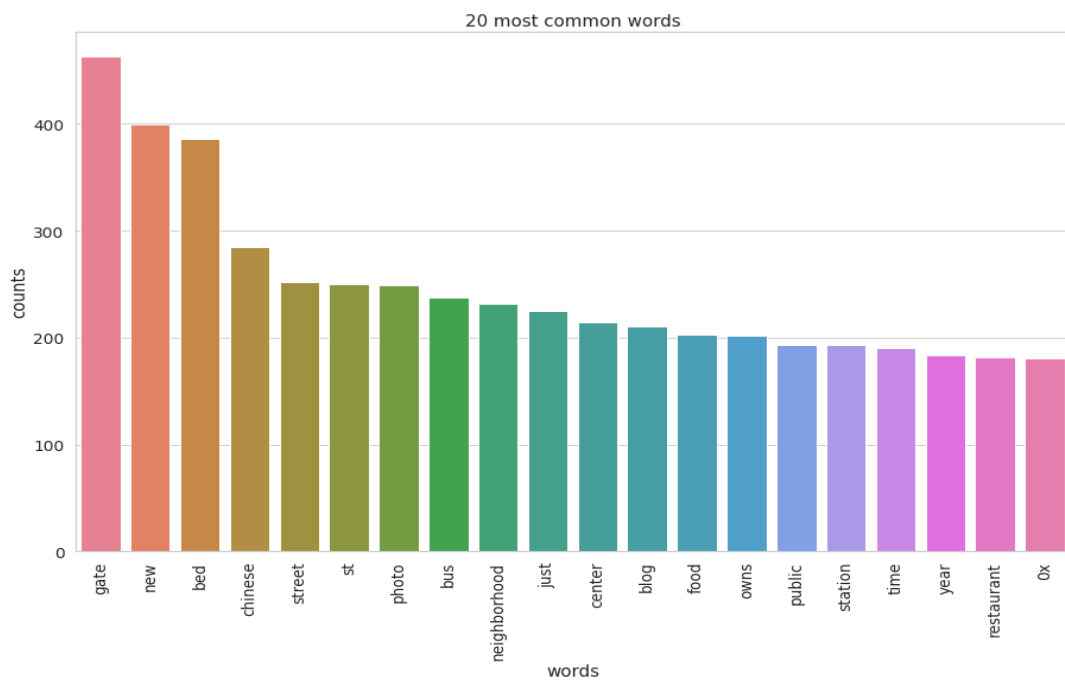


Appendix 3

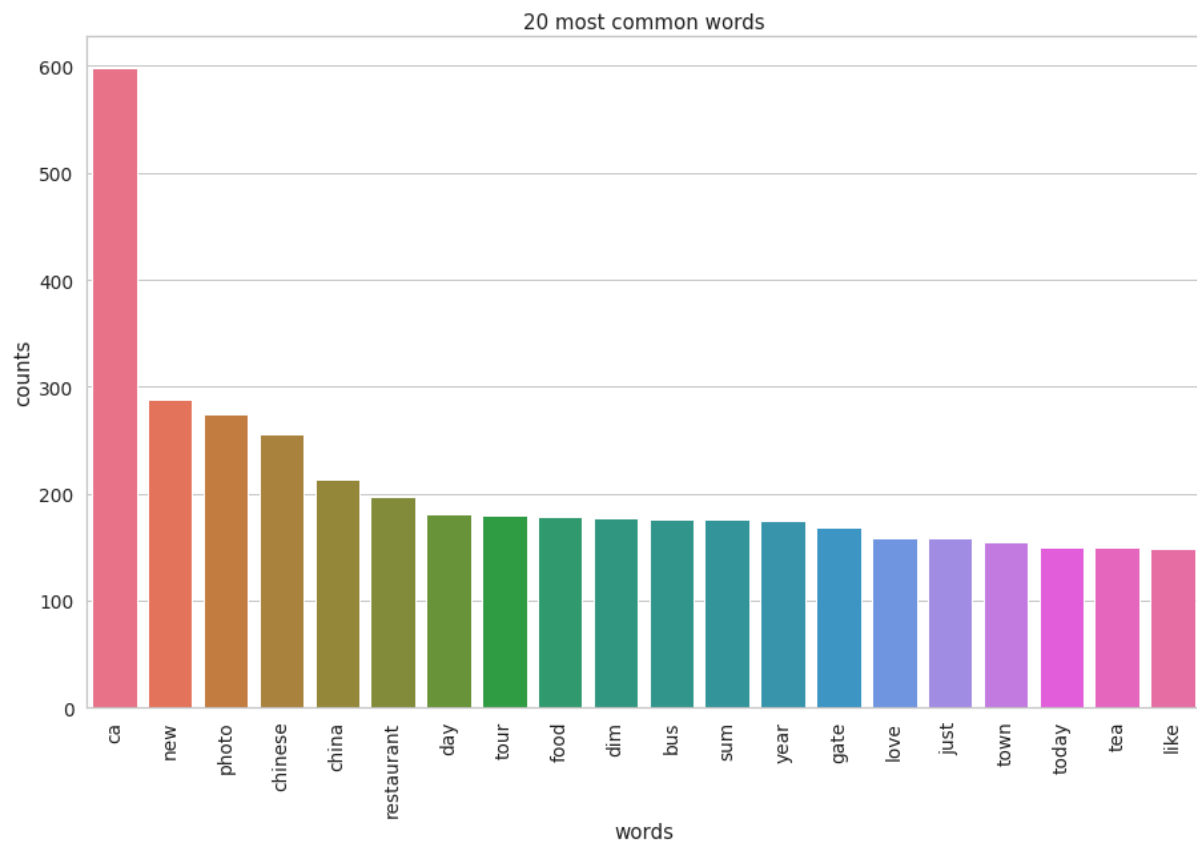
Top Frequent Words in Group 1



Top Frequent Words in Group 2

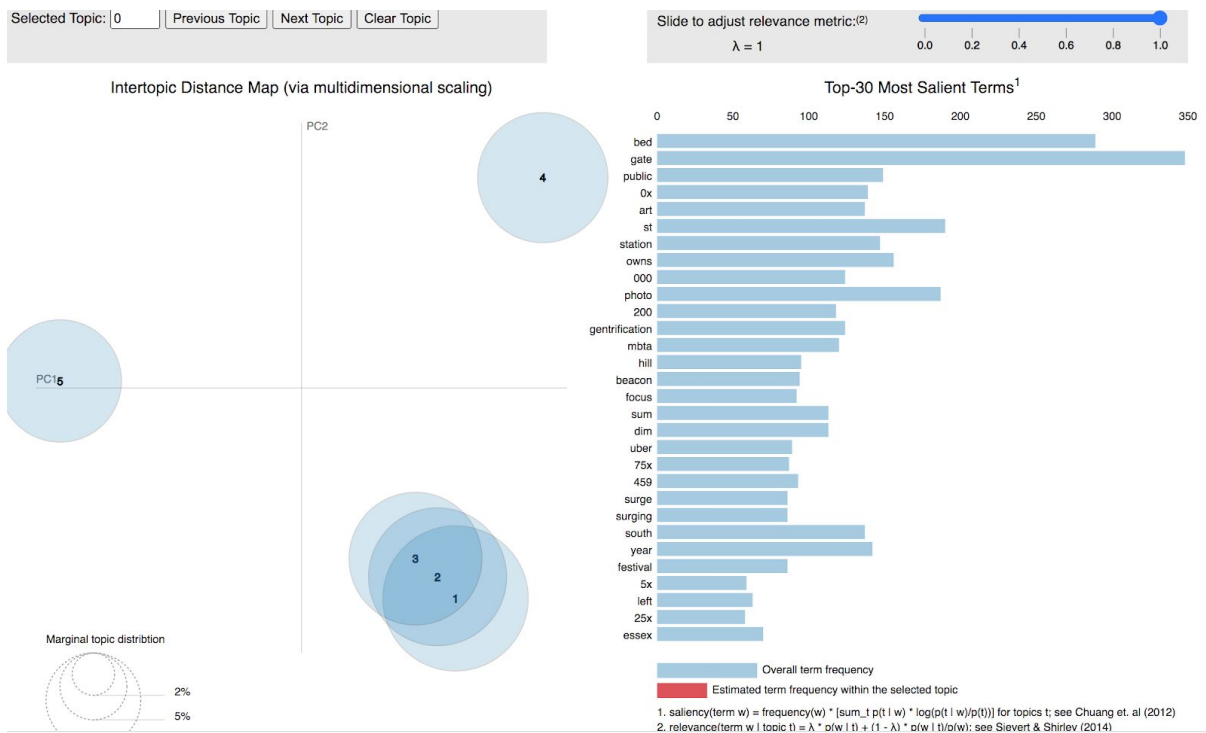
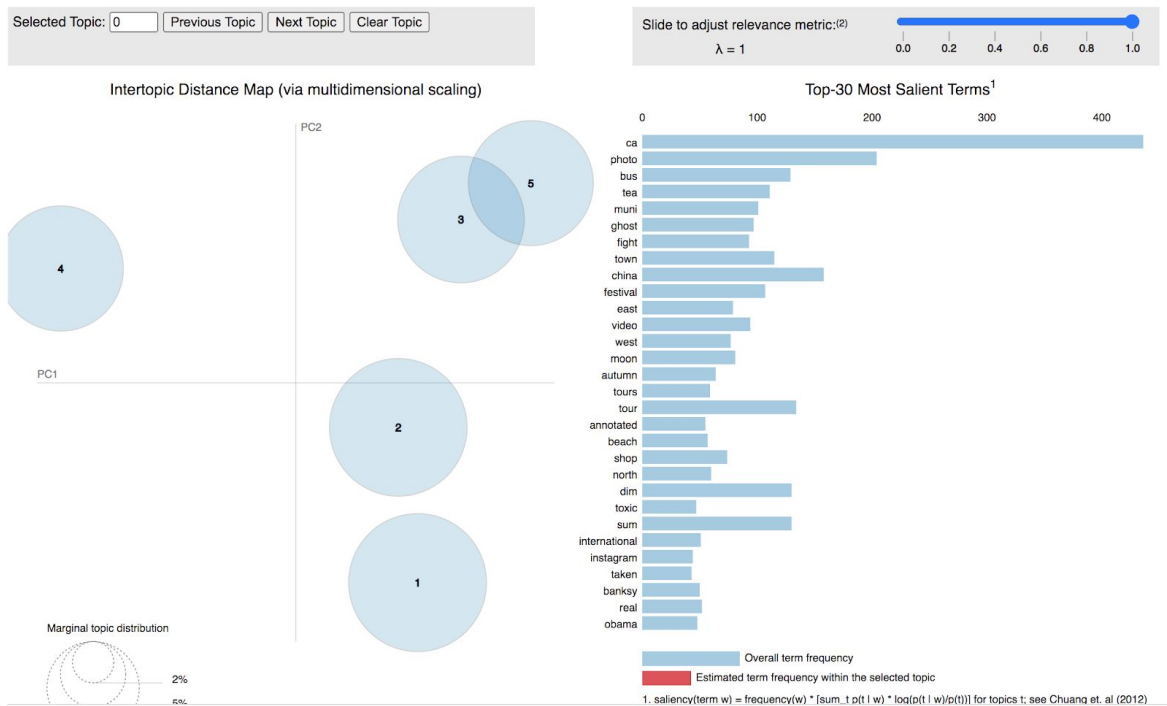


Top Words in Group 3



Appendix 4

Each Topic with Top Wordsth Topic Words



Selected Topic:

Slide to adjust relevance metric:(2)

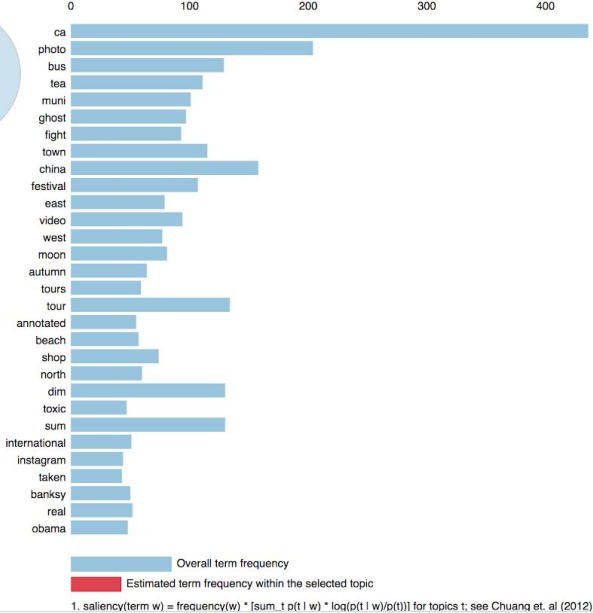
$\lambda = 1$

0.00.20.40.60.81.0

Intertopic Distance Map (via multidimensional scaling)



Top-30 Most Salient Terms¹



Appendix 5

Words in Semantic Dimensions (Chicago)

	race		class
tea		coffee	
		beer	
		drink	
		pastry	
		spicy	
		brunch	

boba

brunch
pastry
dumpling

cake
beer
spicy

boba

dumpling

chef

cook
artist

barber
teacher
worker

banker
officer
police

race

artist

barber
teacher

worker
cook

police
officer

class

Words in Semantic Dimensions (Boston)



Words in Semantic Dimensions (San Francisco)

brunch race

cake

dumpling

pastry

coffee

tea

sticky
cake

beer
coffee

banker race

chef

barber

teacher

worker

student

chef

barber

teacher

worker

student

brunch class

cake

dumpling

pastry

coffee

tea

drink

banker class

barber

teacher

worker

student

chef

barber

teacher

worker

student