

# C-Chicago: Concept for Cultural Travel Local Neighborhoods Like Residents

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## ABSTRACT

This concept is a revised plan of Chicago public transportation system that new travelers in the city are able to explore local neighborhoods easily and efficiently by navigation signages, a gadget and an app, and face-to-face support by local business owners. The hub to connect multi systems is a device “Hoods Guide” which takes a tourist to unique local excursion in response to his/her preference, pay and check in to all transport without tickets, and connect to local experts to extend his/her exclusive journey. This system enables Chicago local government to invite overseas travelers, revitalize local economy, and increase the tax revenue.

## Author Keywords

Service system design; public transportation; tourism; local economy.

## INTRODUCTION

Chicago, Illinois is the third largest city in the United States. In 2016, Chicago set a visitation record of 54.1 million international and domestic visitors; a 2.9 percent increase from 2015, which makes it one of the top visited cities in the nation.<sup>[1]</sup> Among the top featured travel sights in Chicago, most of them are within 2.5 miles from Union Station, the central rail station of Chicago.

Chicago is well known for being the laboratory for modern architectural innovation and experimentation, but Chicago is also unique with its diverse styles of

architecture, arts and music and its rich culture embedded in its 77 vibrant neighborhoods. Each and every one of them has its own unique architectural styles, its special food and its very own variation of music, which make these neighborhoods a perfect place to explore. However, when talking about traveling in Chicago, the 77 neighborhoods are always the forgotten ones. Public transportation, as a way for tourists to commute in the city, could be the perfect carrier to bring the rich neighborhood culture back to the audience’s eyes.

To fulfill the needs of the local residents and tourists, multiple means of transportation is developed. Besides city CTA bus, CTA train and Divvy bike system, several bus tour routes and water boat tour routes are also provided exclusively for tourists. Finding ways to leverage those existing resources to help visitors to connect with neighborhoods outside of downtown is a reasonable path to redistribute visitors to different areas of the city.

We believe a better integration of transportation and Chicago neighborhood culture can stimulate local tourism and economic growth in the future. Digging into the local culture, with the support from local government and local small business, each neighborhood could create their own cultural experiences and form their own unique identity. Transportation, which act in a role of culture spreader, could help promote local culture and help get tourists to their ideal location. In this way, the local community would have the money to prosper and in return attracts more people.

Another opportunity lies in local tourism. As residents of Chicago, although have been in this city for some time, most of them do not fully understand the other parts of the city. The local tourism would target this group of people, providing them another way of exploring the city with an integrated transportation system.

We conducted ethnographic to understand how tourists experience the existing the system now and what their barriers and goals are. We want to design a compelling service to remove barriers and help tourists to achieve their goals in order to improve the overall visiting experiences. To achieve this goal, we took a system design approach. Besides the direct users of the service, we also take perspectives from other stakeholders to make the concept not only desirable for different stakeholders, but also feasible in technology and viable in business. In this paper, we report our findings about barriers of tourists who are visiting neighborhoods outside of downtown in Chicago, and implications for potential intervention of the existing system. We will also report our concept “C-Chicago”.

## **RELATED WORK**

There are some services and applications which are trying to attract visitors to explore Chicago’s hidden gold. The City of Chicago also has programs to boost local economy in neighborhoods outside downtown Chicago. We will give three examples.

### **Choose Chicago**

Choose Chicago is the official marketing organization for Chicago, Illinois. It’s trying to bring regional, national and international business and leisure visitors to Chicago for the economic benefit of the City and the community.

Choose Chicago wants to help Chicago to rebrand<sup>[3]</sup>. One project is “My Big City”, and the goal is to protect current value and increase visitation frequency of young people in Midwest and help Chicago to be a regional destination for them. The other one is “Urban Explorers” which is aiming at expert travelers and city adventurers who spare no expense by offering dynamic city leisure travel, yet in a friendly and easy-to-explore way.

Also Choose Chicago is trying to promote Chicago cultural tour through its website and a mobile App. But they may not achieve their intent because of some usability issues. First-timers might not be able to find the website if they’re searching for traveling information about Chicago and the website is basically text based without transportation information and map. The mobile version of website looks like a simple mobile app, which

they don’t actually have. It still has too much text and cannot help users to plan and navigate. In general the website is more like a information hub. Although users can download an app from Apple Store, it is just a digital magazine without any interaction.

### **Vamonde**

Vamonde is a Create-Your-Own-Adventure<sup>[4]</sup> storytelling App launched by professor Anijo Mathew from IIT Institute of Design. Instead of focusing on famous attractions in Chicago, Vamonde provides information about locations and culture which haven’t been well recognized by most visitors yet. For example, there is a section talking about history and art piece around CTA train and stations. It can also allow users to contribute, and users can add locations they are interested in visiting in the App, and explore later.

### **Neighborhood Opportunity Fund**

The Neighborhood Opportunity Fund was implemented by Mayor Rahm Emanuel in 2016 which is aiming to ensure that the growth of downtown drives equitable development throughout the City by leveraging new development in and around the Loop to generate funds that will catalyze investment on Chicago’s underserved neighborhoods in West, Southwest and South sides. Business and property owners may apply for the funding to develop commercial corridors in those neighborhoods by developing or rehabilitating of real estate and joining in projects that support new or expanding businesses or cultural assets.

## **METHODS**

We conducted six interviews with a variety of ethnic backgrounds and experience levels in Chicago. Interviewees were selected based on the survey we carried out in advance. There were 3 males and 3 females. The age distribution was five people in 21-40 and one 41-60. Two people had a family with at least one child, one had a partner with no kids, and three were single. Two people were living in Chicago for more than 10 years, and four were living there for less than two years. We asked them about their main transport modes in their daily life, their knowledge and experience in Chicago neighborhood, difficulties and worries about neighborhoods.

## **RESULTS**

### **Three Major Barriers to Access to the Neighborhoods**

From the research, we find that the first time tourists, especially people from overseas, have four major barriers when they visit neighborhoods in Chicago: recognition,

information, planning, and transportation.

### **Some Neighborhoods are Perceived as Unsafe**

Public transportation in certain neighborhoods and some neighborhoods themselves in Chicago are perceived as unsafe both because what they see and feel. An interviewee said: *"I felt so scared when I was on the blue line toward Wicker Park. The people on the train look like homeless and I felt very unsafe. But after I got down the train, it's okay."* People sometimes are overwhelmed by negative news and prejudicial judgement from friends, and in some people's mind, south and west part of Chicago is in general unsafe. But after they experienced it, some people changed their view. An interviewee said: *"Before I came to Chicago, I heard that the southern part is unsafe. Then I went there. It turned out to be fine."*

In general there are not enough incentives for visitors to go to some neighborhoods in Chicago. People don't know what they can do in neighborhoods outside of downtown. From screener we sent out, we heard from people that they haven't and also don't want to visit neighborhoods outside of downtown because they don't know what to do there. So existing propaganda is far less than enough. Also there are no triggers to attract people's attention. For example, people like to collect souvenirs like well-designed maps or stamps which visitors always like to collect. An interviewee said: *"I like to collect local maps and post-cards which could represent the local culture"*.

### **Finding Reliable Information is Hard**

People find traveling information from different channels. Some people prefer recommendations from friends, written books, magazines and newspapers rather than internet when they choose which neighborhoods to go and what to do there, because they think those information is more reliable. One interviewee said: *"My family uses a guidebook we bought in Japan to find an interesting neighborhood in Chicago."* And they carry the book with them for almost two years. Books and magazines with credibility are always perceived as more reliable resources. An interviewee said: *"I look for good restaurants by New York Times."* And another interviewee said: *"I use Lonely Planet to get information."* People also tend to trust and follow friends' advice. An interviewee said: *"I visited a Vietnamese market in Old town because I heard it from a friend."*

People seek for information from reliable source, but the ones who do like Internet search is more into the more up-to-date information. An interviewee said: *"I like to use TripAdvisor rather than books because the information on the Internet is more up-to-date"* So in general, people are looking for reliable and up-to-date information from multiple channels to learn a place they are not familiar with, but this kind information is not easy to access to.

### **Planning Process can be a burden**

Most people prefer to make traveling plan before they visit certain areas or cities, though some plan are more detailed and deliberate, and some are more general. But some people revise their travel plan just before or during the trip due to sudden changes in circumstances such as weather, but existing travel agencies or service don't accommodate those situations. A interviewee said: *"I visited the lakeshore because it was snowy on that day and I expected a beautiful snowy lake scenery."* So sometimes visitors will adjust their agenda actively to enjoy experiences they didn't expect.

But sometimes the change can be negative. For instance, an interviewee said: *"we (interviewee, his wife and son) walked around in the neighborhood for almost an hour, and then we visited a library because it was too cold for our baby. I think the library is nice."* Visitors need to make change of their plan because unpredictable situation, such as bad weather, and most of the time make improvised decisions about where to go and what to do.

Sometime, people might just have one specific destination in mind when they are visiting somewhere. Then it's hard for them to find other destinations around that. And sometimes they don't know what to do. One interviewee said: *"I go out to visit different neighborhoods almost every weekend, sometimes I just have one plan, like for a restaurant, and because I don't know this place, so I don't know other places. So usually I will come home after having the meal, but if I know there are something nearby, I'd like to walk around the restaurant to explore. Sometimes there are some interesting stores around in the neighborhood."*

### **Public Transportation is Undervalued**

Some visitors perceive CTA train as special and experiential because CTA train travels across skyscrapers and special artworks (like graffiti) along the way, which is different from transportation system in other cities. For example, a interviewee said: *"I like public transportation in Chicago and actually I really like the L train. You can see everything from above. It's so different from my hometown, and other cities I have visited in US. I really*

like the feeling of going through the skyscrapers. It's so cool. I think everyone who visits Chicago should definitely try it out."

However, some interviewees reported that it can be boring when they are in train or bus because public transportation is slow. Also, they regard public transportation more like a mean to commute from point A to point B instead of an experience through point A to point B. An interviewee mentioned: "I prefer to take public transportation if my destination is downtown. I'd like to travel in a more sustainable way. But, if I will go to north side of Chicago with my daughter's, I may prefer to drive a car, because it takes us too much time to get there if we take a train or bus." Similar things also apply when people are exploring the neighborhoods. Sometimes two destinations are far away from each other, tourists may find commute from one to another can be a burden. An interviewee mentioned: "We walk a lot, but Chicago doesn't have long walkable streets.... sometimes you have one (interesting place) here and another one far away, then there's nothing in between."

People who cannot travel easily sometimes prefer the places which offer holistic services to visitors, but neighborhoods outside of downtown Chicago can't provide this now. An interviewee said: "My family visited a resort hotel in Cancun because it offered a whole service and we could stay all the time in the hotel." This is a good metaphor. But compared with service in neighborhoods of Chicago, visitors are experiencing fragmental services all the time. They need to find means of transportation to get certain neighborhoods and then navigate inside the neighborhoods. They also need to find place to go, things to do, and where to eat from all different resources, which can be frustrated for people who want to have an easier experience.

## DISCUSSION

### Analysis and 4 Design Principles

The objective of this project is to build an understanding of current transportation and tourism system in order to identify barriers and design a better solution to remove those barriers and promote neighborhoods visiting. Using ethnographic methods and system approach, we obtained qualitative data from our interviewees and also investigate roles and needs of other stakeholders in the system through secondary research to facilitate the adaption of our concept. After analyzing the data we got, we generated four design principles to facilitate our concepts generation, including: (1) give people incentive to come to neighborhoods outside of downtown Chicago and reduce negative perceptions of certain areas; (2) leverage

existing travel and local sources to inform and attract travelers with up-to-date and reliable information; (3) provide dynamically changing routes and customization for visitors to enjoy neighborhoods with maximum flexibility; (4) make using the CTA and other public transportation a highlight when visiting Chicago.

## Synthesis and Concept of C-CHICAGO

### Concept Evaluation and C-CHICAGO

We brainstormed concepts according to design principles and we evaluated them through user value and business value (see Figure 1). We revised the concepts with lower value in either user or business and combined relevant or complementary concepts together to form our final concept C-CHICAGO. C-CHICAGO is a service system which connects travelers with resources and offers them integrated neighborhood information, customized and on-demand guidance, and unforgettable neighborhood memories.

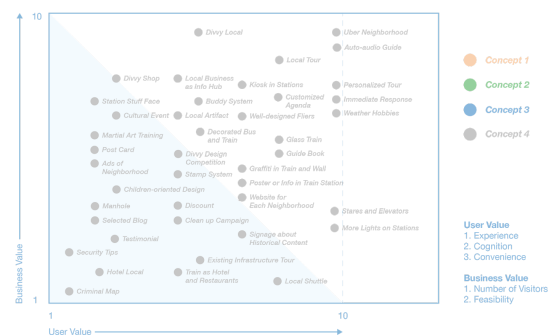


Figure 1. Concept Evaluation Diagram

To better explain our service. We developed two scenarios and multiple use cases (see Figure 2):

(1) This is John, it's his first time visiting Chicago. He lands at Chicago airport and finds a welcoming Kiosk. On the kiosk, it displays a bird's eye view of Chicago, which is very attractive. (2) After browsing the Kiosk, he finds that the kiosk offers a smart device that provide audio guide, information about chicao neighborhood, and CTA transit data. With the device, he can find everything that's happening in the neighborhood, he doesn't have to gather all the information by himself. He make a deposit and get one immediately. (3) After he gets the device, and answers some basic setting up questions, he can sync with his google account other social media account, the device automatically gets John's preference and then provide him with some customized recommendations. (4) When he is

playing with it, he finds today’s special event, the CTA special train. Special train provides different themes and highlights the Chicago tour. (5) John chooses a beer train, and has a nice train tour with his favorite beverage. (6) However, John feels a little bit boring during such a long train time. There are many interesting things like graffiti along the CTA line, but he doesn’t know it. Then the smart device can turn into a scavenger hunt mode, which shows some hidden treasure spot along the way. (7) When the train approaching the hidden spot, it will reveal their real face. John could also listen to the audio description of this place. (8) After John arriving destination, the device automatically read the geolocation, and provide nearby recommendations based on John’s preference. (9) He decides to go with the food tour in Chinatown. The device create a route specially for him, and the route is changing dynamically according to the weather , time of the day nearby events, etc. (10) After couple of days of traveling in Chicago, it’s time for him to go back home. He goes to the airport, and return the device through the kiosk. The kiosk read John’s past days geo location and generate a digital footprint. John could print the footprint as a postcard, and sent it to his friend directly through integrated USPS service, or print a copy of his own. Then the kiosk would calculate the expenses and return the remaining deposit. (11) Another big part of our service is Chicago Local Hub which is for our Amy. The Local Hubs are registered Chicago star local biz, like restaurant and cafe shop, and stores. The hub itself is an interesting place to visit because they have unique offerings to travelers. Besides that, there are kiosk in the hub too. Visitors could also charge their phone, get help from the store stuff and even get a personal guide for people who love to talk with local person rather than a audio guide. (12) Amy finds her certificated local guide with a affordable price, and she reserves 3 hours of the local guide through our device. She enjoys the local tour with the guide.



Figure2. Scenarios

Service System Design

To support our service, we designed not only the frontend but also the backend of the system (see Figure 3). After designing the overall service, we identified touchpoints with end users where we will introduce our kiosks and devices (see Figure 4). We used information architecture to clarify the function and information structure of the kiosks and devices to make sure users can get what they need from our service with the least frictions (see Figure 5)

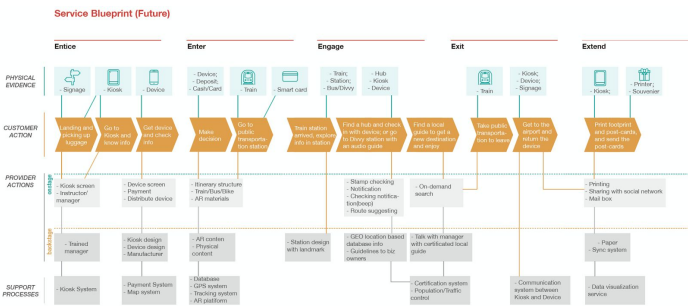
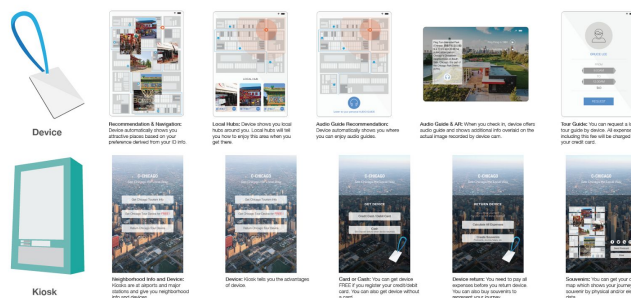
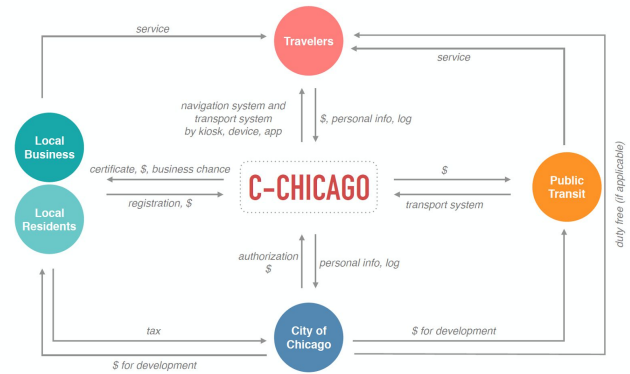


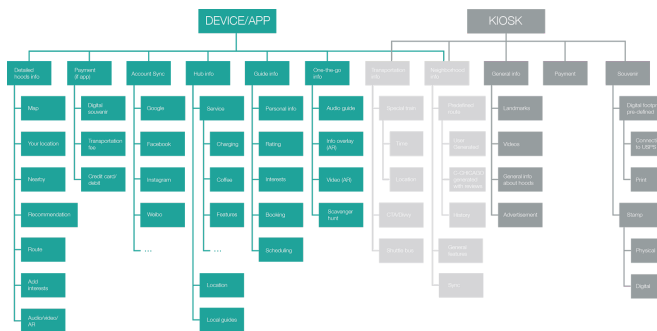
Figure 3. Service Blueprint



#### Figure 4. Interface of Kiosks and Devices



**Figure 6. Value web of C-Chicago**



### Figure 5. Information Architecture

C-CHICAGO serves as a platform which connect travelers, local business and residents, and public transportation system (see Figure 6) and benefits all the stakeholders. At the very beginning, we imagine c-chicago is authorized by City of Chicago, and we'll certify several local businesses in the neighborhood and invests government funds on behalf of City of Chicago to develop their unique services. And we will aggregate local business information, and show it on google map through our application. Also, we will introduce CTA, Metra, and Divvy ticket and payment system into our application to integrate the transportation system. We will deliver neighborhood and transportation information to travelers through multiple touchpoints, such as kiosk, device and app. On the other hand, we collect travelers' personal info and their logs of journey and analyze the data to improve our service. C-chicago get money from local businesses, advertisement, data analysis, and commission from the City of Chicago. Also after the local business owners expand their business, the tax income of the City of Chicago will increase.

We also think about how our service system will grow in the future (see Figure 7). In the short term, we will develop an app and also a website by integrating public transport system and navigation system on google maps. And we install free wifi on major stations. We focus on a couple of neighborhoods and test our service in the areas. After we get reputation, we will develop devices and kiosks. In a long run, we apply AI into recommendation algorithm and augmented reality as extra offerings. We will also expand our partners to private transport providers such as uber and lyft. We'd like to cover over 50% neighborhood in Chicago in the end.



**Figure 7. Road map of C-Chicago**

## ACKNOWLEDGMENTS

We thank all the volunteers who participate in our survey and interview for their valuable input to our final concept.

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