Culture-Orientated Food Design for Social Issue

Yinman Guo  
*School of Design, Hunan University, China*

Tie Ji  
*School of Design, Hunan University, China*

Follow this and additional works at: https://dl.designresearchsociety.org/drs-conference-papers

**Citation**  

This Research Paper is brought to you for free and open access by the Conference Proceedings at DRS Digital Library. It has been accepted for inclusion in DRS Biennial Conference Series by an authorized administrator of DRS Digital Library. For more information, please contact DL@designresearchsociety.org.
Cultural globalization threatens cultural diversity, especially for minority cultures and ethnic cultures. In response to the fading of cultural identities, there is rare literature discussing how design can contribute. Through integrating the cultural significance of food and food design methods, the paper proposes a culture-oriented food design model to strengthen cultural identity and create connections. A case study of designing a delivery service of Chinese food for the second-generation Chinese Americans is presented to solve their identity crisis through the process of defining user, content, experience, and design around culture respectively. Feedback from target users shows that the cultural meaning contained in the service can evoke their ethnic identity successfully. The result indicates that the design on culturally significant food can be applied to the identity problem related to specific communities and populations by enhancing food experiences, thus to strengthen cultural identity, increase social inclusion and cultural diversity.

1 Introduction
Nowadays, cultures keep interacting all the time. It’s easy for people to approach various music, book, food from different cultures in one place. Therefore, concerns about cultural homogeneity have emerged. Influence of strong culture has caused crises in the marginalized society’s cultural ecology. Concerning food, on the international level, industrialized food like McDonald became a major target of the anti-globalization movement (Kellner, 2003); for a country, such as in China, there is the influence of Han culture on the local food system of ethnic minorities; for a city, ethnic and marginalized diets are also somewhat affected by the host society. However, the one-way assimilation is not practical in this globalized world. Manzini (2015) proposed that a resilient society means it must have cultural diversity and creativity. Homogenization, which was often assumed as the only consequence of globalization as a process, instead of it, the loss of heritage culture does not inevitably occur.

Therefore, the critical point of the paper intends to explore is how to help minority and marginalized groups enhance their cultural identity under the influence of mainstream culture. Informed by
"cultural significance of food and eating" (Murcott, 1982) and "design as one of the key factors influencing the identity of the culture" (Morelli, 2011), this paper presents a culture-oriented food design model, for the purpose of designing a food and eating experience aiming at creating cultural meaning. Following the design model, this paper presents a case study of designing culture-orientated food design for second-generation Chinese immigrants in New York. Their experience of identity crisis is in relation to the dominant American identity and ethnic background. Based on this context, the paper details the process of designing food experience on Chinese food to strengthen their ethnic identity. The results showed that the new experience is an effective way to engage them joining cultural practices and interacting with their cultural identity.

2 Design Objectives and Methods

2.1 Cultural Significance of Food

People’s identity is best understood as performative, and food becomes a critical piece of it in every day (Stajcic, 2013). Different from language, food is not being exact, it’s broad and deep (Anderson, 2014). As a kind of material culture, food has features of social culture and spiritual culture at the same time, and this is the fundamental concept of food culture in Anthropology. From this point, researching food culture also reflects the meaning of the whole culture.

2.1.1 Construction of Social Identity

In conditioned situations, food can be a symbol of identity of ethnic groups. The same food, bread, for example, is consumed both in the west and east, but it can generate unique identity in a particular context. Food is particularly important when you are separated from mother culture; for immigration, food is the last vestige of culture that people shed (Choi, 2014). Among all the manifestations, one of the best ways of getting into a culture’s heart would be through its stomach (Chang, 1977). Food conveys subtle and complex messages (Anderson, 2014). It not only provides the energy we need for survival but also connects with our emotion - mood, feeling, and tone (Anderson, 2014). More importantly, food is a social code and eating is a social activity for everyone to build and express the relationship with his ethnicity and the world (Figure 1).

![Figure 1 Onion diagram of food's function and meaning](image-url)
2.1.2 Convey of Social Meanings
Anthropologists of food consider food as an essential aspect to understand social life and relationship. They not only research the production, distribution, and consumption of food, but also prefer to see food as a specific field or a carrier of communication, significance, and narration.

As a useful communication method, Stajcic (2013) said knowing a culture through food is an interesting way since people will keep asking questions about the details, like the name, ingredients, origin, and history. For example, in each culture’s cuisine, the ingredients people chose to use are dependent on a lot of factors, like the land, the climate, and religious or social sanction. It’s easy to tell which cuisine when people see the staple ingredients combination. Every cuisine contains a long story about ancestors and history. Choi (2014), founder of the Mash-up Americans said, our comfort foods map who we are, where we come from, and what happened to us along the way.

2.2 Food Design
Food design influences our food choice within our unconscious. According to Victor Margolin (2013), there is a close connection between food and design, regrettably, scholars are yet to recognize the close relationship between the two. Food design is the design of food; it sees food as an object for designing, includes its taste, consistency, texture, surface, the sound of chewing, smell, and all other object properties. On the system level, Dr. Francesca Zampollo (2016) proposes the innovation of food design contains all the procedures of production, procurement, preservation, and transportation, to preparation, presentation, consumption, and disposal. There are many fields in food design, such as food shaping, packaging, food space, eating situation, food service, etc.

Recently, the design on food has expanded from the design of products to the broader category of diet services, business models, and system design (Kuang & Chou, 2017; Fassio, 2017; Ballantyne-Brodie & Telalbasic, 2017). And the topics discussed are more inclined to design reflections on health, safety and environmental issues brought by industrialized food production (Bozzola, Palù & De Giorgi, 2017; Ballantyne-Brodie & Telalbasic, 2017; Cecchini, 2017), such as urban farms and slow food movement.

2.3 Integration of Food design and Cultural Significance of Food
Although new areas such as critical food design and sustainable food design have emerged in food design, it is still relatively rare to explore food design from its cultural meaning and produce a reflection. One example is the "Chopsticks" project co-operated by four design institutes in Hong Kong, South Korea, China, and Japan. This project is to explore diversity through a comparative study of cultures and lifestyles in Asia and think about what we should do in the future, how to respect our cultural heritage, and ensure that we will still enjoy the benefits of identity in the future (Lam, Lee, Liu, Yamanaka & Woo, 2006). Because food can become a physical and spiritual carrier of a social group, moreover, food culture constitutes ethnic and cultural identity, therefore, combining the design method with regional and ethnic characteristic food culture can enrich the theme and content of food design. The other way around, design also has a positive effect on the culture of a particular food.

3 UCED Model for Culture-orientated Food Design
Considering discipline of design and cultural study, the author proposed a UCED model (Figure 2) for working on cultured-orientated food design. Specific User with High demands for the culture, specific Content among the culture’s components with High connectivity, and good Experience with High engagement for user are three basic criterions. Besides, High autonomy of the Design solution could guarantee that it is independent enough to sustain for a long time.
User: The Cultural issue is a complex, continuously changed topic. The more frequently that people from different culture meet every day, the more complicate the social network is. For example, the culture-related issue around immigration involves various stakeholders, such as generations of immigrants, other ethnic groups or people in host society culture. They influence each other from behavior to value in the interpersonal communication process. Thus, the user whom the design focuses on needs to be figured out early and deeply understood. In design discipline, the user-centered design has been widely accepted, and regularly, even the user had been fixed when the designer took the case. However, in an ill-structured cultural problem, the decision-making on the user is always the crucial and first step, which needs a large amount of desk research and interviews on related groups of people. Thus, people with the highest demands for a defined cultural problem should be clarified.

Content: As a culture-orientated design, the cultural meaning that food can express depends on how the designer understands food culture in depth. Culture is visible but not always decipherable. Culture contains a lot, and Tylor (1871) defined culture as "a complex whole which includes knowledge, belief, art, law, morals, custom, and any other capabilities and habits acquired by man as a member of society." Considering food, which part of food culture that designer wants to adopt, emphasize and convey needs to be researched and carefully chosen. There are several paths for designer to learn: designer can live with culture holder to acquire the eating custom and habits; designers can work with chef, baker, food scientist to learn about raw materials and cooking techniques; designer can learn from anthropologist about culture's meaning and function of diet, food and eating in society. Different paths can let designers comprehend food and its culture from different angles. Specific content should be selected in accordance with its complexity and feasibility, considering design context and user's motivation.

Experience: In current cases of design for culture, designers create products with the cultural connotation for spreading a nation or ethnic’s cultural identity and value. Souvenir shop in the museum is a primary field for that. Consumers get in touch with the culture through momentary consuming behavior. This is a product-oriented way to transmit culture. However, culture learning and understanding is best seen as a lived experience (Moran & Lu, 2001). "Understanding in practice" is viewed as a compelling way of enculturation, that knowing is generated in situations whose specific characteristics are part of the practice (Kirshner & Whitson, 1997). In details, the manifestation of culture has different levels of depth, which are symbols, heroes, rituals, and values.
from superficial level to the deepest one. Value, which is the true meaning of culture yet intangible, can be revealed by practices of first three tangible aspects. Therefore, the meaning of culture is best gotten by experiencing specific activities involving physical objects. Based on the properties and educational research on culture, the experience is one element that design should be included to engage users.

4 Case Study: a Culturally Significant Food Service for Chinese-American

4.1 Context

As one of the countries that have the largest immigration population, a lot of races and cultures coexist in America. Among all the cities, New York is the most diverse one. The demographic information of New York City in 2010 shows the ratio of white population is 44%, African is 25.5%, Hispanics are 28.6%, and Asian is 12.7%. Leaving their country of origin, immigrants need to deal with the separation from a familiar environment and try to assimilate to the dominant culture in a new society. In this process, their identity will undergo a process of reconstruction. Their ethnic cultural identity and American identity will continually be shaped, and new social identity will be built. Their children who are born in America will also face the identity problem since they grow up in between ethnic heritage culture and American culture.

The scientific research of immigration could be traced back to early twentieth century, and the understanding of assimilation reached the summit at the 1960s (Alba & Nee, 1997; Kazal, 1995). In the early literature of assimilation, ethnic groups were described to unlearn their inferior cultural traits to succeed in learning a new way of life for full acceptance. This kind of ethnocentric way to interpret assimilation has already been discarded. Segmented adaption was also observed, like Child (1943) proposed three main types of immigration: the “rebel”, the “in-group” type and “apathetic” reaction. However, this division still polarized their identity into American identity, ethnic identity or none. Later, bicultural identity was proposed to refer to immigrants who have the ability to combine two cultures. Over the past two decades, the importance of minority’s original culture has been highlighted (Mchitarjan & Reisenzein, 2014) and people’s competency of managing more than one culture has been strongly supported (Benet, Leu, Lee & Morris, 2002). Immigration has been more encouraged to retain their cultural heritage during acculturation (Portes & Rumbaut, 2001). While bicultural type people have a strong identification with two cultures, assimilated type people only have a strong identification with the host society (Benet et al., 2002). Compared with assimilation, bicultural people speak both languages, have friends from both cultures, and watch TV programs from both contexts. Beyond cultural behaviors, they can intermix their heritage and cultural streams, holding values from both (Schwartz & Unger, 2010). They can switch their behavior depending on the different cultural situation (Benet et al., 2002). And Nguyen & Benet (2013)’s research showed that there is a significant, strong, and positive association between biculturalism and adjustment both in psychological and sociocultural aspects, and this link is stronger than those who only associate with one culture (assimilation or separation). Biculturalism can help them be comfortable in both settings, use coping strategies from both cultures, even build advanced reasoning (Schwartz & Unger, 2010). Thus, bicultural identity should be viewed as a benefit and capital for immigrants, instead of a defect.

However, immigrants are still having difficulties in building a bicultural identity. During acculturation, a set of behaviors influenced by stress may occur, such as confusion, anxiety, and depression, which is related to family socioeconomic status and parent-child relations, English and foreign language proficiency, school attainment, experiences and expectations of discrimination, and ethnic identity and national origins (Rumbaut, 1994). Under this situation, it’s hard for immigrants succeeding in building bicultural identity during acculturation. They gradually lose their ethnic cultural identity and become assimilated entirely into host society in the end. This is a wicked problem associated with many stakeholders and has complex interdependencies, and seldom solution has been provided.
Governments, organizations, institutes, and designers have done practices to support ethnic groups in building the relationship with their ethnic culture. Canadian Multiculturalism Act was issued and has helped numbers of immigrants succeeding in transferring their language through three generations. In America, SAT Subject Tests include the option of Chinese, which encourages Chinese Americans to pass on their heritage language to children for succeeding in attending college. Museum of Chinese in America (MOCA) in New York exhibits collection, history, and heritage of Chinese American, along with diverse educational and cultural programs for visitors to participate. Culturally sensitive kitchen design for Mexican immigrants was illustrated in Hadjiyanni & Helle (2008)'s research. In these cases, government's effort is efficient and can increase the overall level of openness, yet it's usually dependent on the policymakers, which is easy to be changed due to leadership turnover. Non-profit has its limit on budget and museum is still a traditional way of giving education about culture. The existing solutions to the relationship between immigrants and their ethnic cultures are mostly top-down and policy-oriented, instead of that, more flexible, bottom-up, agile solutions are needed.

4.2 Methods
The study is presented through a one-year-long ongoing research and design work on Chinese Americans in New York City. Being bicultural for immigrants is more adaptive in gateway cities, where multiple cultures provide a distinct advantage (Schwartz & Unger, 2010). Thus, the pilot project here can be seen as the epitome of the accelerating, globalizing world where cross-culture situation is happening every day. Several qualitative research methods have been used in this research, including interview, questionnaire, literature review, and prototype.

4.3 User: The Identity Crisis of Second-generation
In the beginning, interviews with ten Chinese Americans in New York were done in order to get general views on the most common and severe problem regarding Chinese American immigrants' cultural identity. In-depth interviews about 45 minutes each have been done face-to-face or on the phone. Interview questions included their basic information, the community they interact with, activities in festivals, relationship with parents/children/relatives in China, the cultural gap in daily life, information source, education on kids, and expectation for surrounding cultural environment. And desk research about first-generation and second-generation Chinese Americans has been done to get a better understanding through previous research on this issue.

Next, five second-generation Chinese Americans between eighteen to thirty joined the second-round interview around their identity struggle both outside and inside their home. Four of them are college students or master students from New York University, School of Visual Arts, Pratt Institute and Columbia University, and another one already started working at a bank. The questions included their family information, education background, their parents' professions, acquisition of Chinese language, level of interest in Chinese culture, connection with relatives in China, the experience of going to China, cultural conflicts they ever encountered, and discrimination towards their identity.

Based on the result of desk research and interview, second-generation Chinese Americans became the target since they faced the problem of identity crisis most and struggled more than their parents. They always feel not belong to either of the two worlds. In general, acquisition of language, parenting attitude, relationship with relatives in China and close friends are the main factors that shaped their cultural identity. Specifically, the phenomena that second-generation has resistance with parents in the early period and they expect bridging the gap after the 20s is an intensive topic from the interviews. From the interviews the authors conducted in New York, below are what they said:

In the last couple of years, as I traveled back to China to see my families. And I mean I personally realized how important it was to be identified as a Chinese person regardless of having the American passport. (20-year-old Chinese American)
There is a point that I really don’t want to be associated with Chinese. After I got over that, I think I visited China alone with my mom during winter break, and just talked to my grandparents and got wonder about Beijing a lot. (20-year-old Chinese American)

It is a privilege to learn about two cultures. (24-year-old Chinese American)

Knowing where my parents are from, where are the cultures from, is very important for me to understand myself. (22-year-old Chinese American)

Despite defiance of adolescence, their mood and attitude are more stemmed from their bicultural background compared with other youth. Considering second-generation’s formation of identity, Phinney (1990) proposed a three-stage model, including unexamined ethnic identity, ethnic identity search, and ethnic identity achievement. In the second stage, young adults are likely to have ambivalent attitude and search for the answer, because they need to deal with issues in a diverse social context after leaving home. Thus, second-generation Chinese Americans become the high potential user to be worked with. The two main reasons are:

- Second-generation immigrants are more prone to have trouble in constructing identities than their parents because they need to strike a balance between ethnic and national identities and try to establish bicultural identity,
- When the second-generation enters into their 20s, there will be a fault or weak connection between them and their parents’ identity.

4.4 Content: The Value and Obstacle in Cooking Experience

As the user has been assured before, according to the UCED Model, content associated with food culture needs to be considered. In order to know food consumption of target users, an online survey has been done to know more about second-generation Chinese Americans' eating and cooking habits. Twelve Respondents' age range is between 18 and 35. Most of them are based in New York City. Below are the questions and scale of the answers (Table 1). The blank with no scale is for respondents to answer freely.

<table>
<thead>
<tr>
<th>Question</th>
<th>Scale</th>
</tr>
</thead>
</table>
| What kinds of foods did your parents usually cook when you live with them at home? | “American food”
“Cantonese Cuisine”
“Sichuan Cuisine”
“Jiangsu Cuisine”
“Zhejiang Cuisine”
“Fujian/Min Cuisine”
“Hunan Cuisine”
“Anhui Cuisine”
“Shandong Cuisine”
“Others”                                                                 |
| Do you know how to cook them?                                            | “Yes”
“No”                                                                   |
| If you said "Yes", where did you learn it from? If you said "No", what’s the reason that prevented you from learning it? | “1(very unfamiliar)“
“2”-“3”-“4(moderate)”-“5”-“6”-“7(very familiar)”                      |
| How much do you know about Chinese food?                                 | “Almost every day”
“Several times a week”
“Several times a month”
“Seldom”
“Other”                                                                  |
| How often do you eat Chinese food right now?                             | “Almost every day”
“Several times a week”
“Several times a month”
“Seldom”
“Other”                                                                  |
Do you cook Chinese food by yourself?  

| “Yes” | “No” |

What do you cook?  

| | |

How confident are you cooking a Chinese dish by yourself?  

| “1(Low)” | “2” | “3” | “4” | “5(High)” |

Do you think Chinese food is your comfort food? Why?  

| “Strongly agree” | “Agree” | “Neither agree or disagree” | “Disagree” | “Strongly disagree” |

Have you ever asked your family about the recipe they usually used?  

| “Yes” | “No” |

Could you remember the recipe and follow it successfully?  

| | |

How was the experience?  

| | |

What’s the biggest problem for you to cook Chinese food?  

| | |

The data from the survey for second-generation Chinese American shows that half of the respondents’ parents just cook Chinese dishes at home, another half cook different Chinese cuisine as well as American food when they were living with their parents. All of them agreed that Chinese food is their comfort food, and ten of them strongly agreed with that. The situation is they ate it growing up and eating Chinese food has been a habit for them. It’s always something they can go back and enjoy, and it can remind them of family. Eleven respondents are familiar with Chinese dishes, however, in 5-level Likert scale, the average point for how confident in cooking is 3. Sixty-seven percent of them ever asked their family about the recipe, but the experience was not that great. Therefore, they love Chinese food, and they have strong emotion with it. However, they do not have enough confidence in cooking it, which stopped them from continuing this cultural practice. There are four biggest barriers for them – ingredients, time, complexity, and language.

Although cooking Chinese food is a little tricky, they still have deepest feelings about it. There are some exciting phenomena arose in the previous interview. For example, one interviewee said her mother brought a large amount of one kind of dried vegetable to America many years ago. Its name is “Fa Cai”, which sounds like “make a fortune” in Chinese. Due to its propitious meaning, her mother took a little bit out and made soup of it during every Spring Festival for decades. There are also some other dishes that Chinese immigrants continue to cook. Like Stir-fry Rice Cake with Cabbage, it’s a dish conveying a good wish, which Chinese people always eat in Lunar New Year, and Chinese Americans brought this eating customs during migration. Rice cake in Chinese means getting better in the coming year. Napa cabbage is beloved by Chinese because it originates from China and it has good nutrient content. In the old time, it was the only vegetable that Chinese people had, and it’s suitable for long-term storage. One family usually stored several hundred pounds of cabbage to go through the winter. From this case, it’s interesting to see that there are lots of reasons that people never think about when they make a choice. And the story behind the food can be a good design content which connects people with their memories and families.

In summary, in the aspect of content, access to ingredients, recipes have been the primary obstacles for targets users to keep their habit of cooking Chinese food, and abundant stories and past experience behind the Chinese food are their valuable memory. Thus, providing second-generation Chinese Americans with the available channel to retrieve their home culture and memory is what the intervention wishes for making an impact.

4.5 Experience: Design Opportunity for Creating Experience
In UCED Model, culture-orientated food design advocates providing the user with good Experience. Ko et al. (2009) proposed a service innovation design model and established Our Museum, Our
Studio and Our Factory, which connected art, business, and creativity based on "Taiwan experience". In Japan, there was a service design for refugee’s culture through story and cuisine aiming at encouraging Japanese users to learn refugee’s life, which is a good reference for the current study. Service design adopts system thinking and solves a problem based on holistic consideration of the network, and it always put user as the first. In service design, good design on touch points and fluid experience in transition can increase user’s satisfaction. Experience is the essence of a service, which coincides with how a person gets into the core of a culture. Practice and experience provide people with the channel to know the deepest meaning beyond tangible cultural objects. At this point, there is an opportunity for applying service design on culture issue to enhance user’s experience. Besides, service design can provide a small, affordable, and cost-effective solution for SME business (Brooker, 2013). Thus, with low risk, service concept can be easily implemented compared with manufacturing and product, which is suitable for trial and error. The capability of connecting economic to the social and ecological is important in service design, in order to make the case being long-term and sustainable. Thus, a more independent, self-sustaining service designed for culture and food is promising.

4.5.1 Plan and Prototype
In the previous research, user and content have been defined among the UCED Model. The next step is to create compelling service. Three rounds of prototypes were done in the whole process to test how experience could be. All the prototypes were low fidelity, which used existing platform or simple graphics to guide users. The aim was to make sure their interests and to see what and how could stimulate user’s motivation.

First Prototype: Three target users participated in the first prototype. It was a task for second-generation Chinese Americans that asking their parents about one family recipe of Chinese dish they would love to cook; then they gave feedback. Through observing how the testers call, record, purchase, and cook, the authors would like to know if making a favorite dish eaten at home can arouse their memory and they can get more story behind the food through interactions with their parents. Although the three participants said this process is valuable and meaningful, the pain points in the whole experience still exist. Parents always use the words like "a little" or "a few" when teaching, which is very vague and hard to control for them in the cooking process; similar ingredients are hard to distinguish in the supermarket; materials in the grocery store are too large in size or too much in amount; the dishes cooked according to recipes from parents do not taste like in their memory.

Second Prototype: In order to solve some pain points in the last prototype, the second prototype was a Chinese cuisine party for second-generation Chinese Americans (Figure 3). The party provided an opportunity for the target group to make the meal together with a professional chef. The Party's host, the author, selected a few popular dishes among Chinese-American and prepared ingredients and spices. A professional chef was invited to teach cooking at the party. The hypothesis was such a party can reduce part of the difficulties in the cooking experience. Furthermore, the second-generation Chinese might resonate with each other through the interaction with food. As a result, although authors sent the poster through various channels and invited guests face-to-face, there were only two participants attended. The main reason why this activity was not attractive enough was the long distance and the high cost of time.

Through these two practices, what can be learned is that it’s hard to attracting user learning and joining the cooking activity proactively.
Third Prototype: In order to help users to remove barriers to food ingredients and recipes, we take the initiative to solve their problem of getting access to these things. By providing the prepared ingredients and recipes for the target user, we want to explore whether users will get interested in cooking Chinese food with time reduction. Then, in the third prototype, the author made an appointment with a second-generation Chinese and delivered the ingredients, spices, recipes, and stories of "Stir-fry Rice Cake with Cabbage" while she was free at home and observed her cooking process. The user made the dish in a short time and the feedback was good. The results showed that this kind of service by saving user’s time, providing access, and creating convenience could become a viable design outcome.

4.6 Design: Service for Strengthening Cultural Identity via Culture-orientated Food Design

Based on all the studies, the concept of Foodtale (Figure 4) came up, which is a delivery service of prepared Chinese dish’s ingredient, using storytelling way to introduce the story behind the food. Using food to evoke self-reflection, Foodtale encourages second-generation Chinese Americans to keep their Chinese food eating habit and cook Chinese dishes more. The process makes them getting more interests and confidence, further influencing their connection with their cultural identity.

Users can browse foodtale.us online (Figure 5) to look for Chinese dishes they like. The website includes the favorite and typical Chinese dishes and tells the stories of where they come from. Users can order dishes online and they can choose the time they are available to be delivered. And then, a box with ingredients, recipes, a map and story’s illustration will be delivered on time to a specified location. Foodtale is also a platform for target users to recall their memory about the dishes from home and it provides useful information for them to buy Chinese ingredients nearby.
4.7 Pilot and Evaluation
After the digital platform had been done and the food box (Figure 6) had been prepared, the service was tested and iterated for three times (Figure 7). The test process adopts the think-aloud strategy. Two main questions are concerned in the process:

- Function: Can users interact with the service and products smoothly? Is it convenient and useful for them?
• Emotion: Do this experience and the information inside of the box make an impact on target users?

On the aspect of function, participants did not have much problem of following the recipe and cooking it. One person asked for more visualization of the story and information in the box.

On the aspect of emotion, the experience made users talk and think more about their identity. One girl talked to me about her experience as a second-generation to me at the end:

*I’m American born Chinese, but I feel I’m not that connected, especially when I’m away from home. My grandparents always came and took care of me when I was a kid. They taught me Cantonese, and they cooked Cantonese food. I like this way. The process reminds me a lot.*

She talked about her favorite food freely and expressed her willingness to learn more. Another man said this whole experience made him learn more about Chinese food and learn more about his heritage. He said:

*The next time I go to grocery store, I will keep a lookout for some of these ingredients. I would love to try more.*

By removing the barriers of convenience and access, the service provides an integrated experience for users, which facilitates people to get a better acquaintance with their cultural identity from tangible food to its inner cultural meaning via practice. Food becomes a good medium that evokes their childhood and memories and connects their past to the future. Foodtale is a service that second-generation Chinese Americans can go back to when they miss. It’s a place they are free to talk and discuss the food, their family, and their identity. For a minority, beyond totally assimilating to the majority, knowing more about who they are and where they come from can help them to be confident in their bicultural identity.

4.8 Discussion on the Use of UCED Model

The UCED Model is a framework to do culturally significant design for food. In the paper, it is used in designing activities that target Chinese immigrants as the specific audience. For this group of people, the specific cultural issue to discuss is how to enhance cultural identity through food design.

In the design process, “target user” and “cultural content” are two elements that must be clarified for designing, and this became one of the biggest challenges throughout the research. How to make the decision is dependent on the ubiquity of the problem, availability of access and possibility for design option. Based on the user-centered feature of design discipline, the constant contacting with a certain group of people made sure that the needs and demands were real. And the experience-oriented design makes sure that user has a better engagement and trigger users reflecting in action. Food, as an object, which is made and consumed every day, also has a unique advantage in providing experience. The final design concept for second-generation Chinese American, as a socially beneficial service, creates a new probe into minority’s culture issue, which is different from existing solutions and can be economically sustainable on its own.
There were surely some limitations of the work. Firstly, although users gave positive feedbacks on Foodtale, as a project which was aimed at raising awareness, the long-term impact remains to be seen. Next, this solution is on an individual level, which wished to create self-reflection. As the cultural issue is a multi-stakeholder problem, the interaction of multiple users can be explored next. Also, apart from service, more research may need to be done from cuisine, food chain, etc.

5 Conclusion

In this paper, a UCED (User-Content-Experience-Design) model is proposed for designing culturally significant food to enhance minority and marginalized groups’ cultural identity. Centering on culture, the four parts of the model include targeting user in the culture, choosing cultural content, creating a cultural experience and designing product, service or system with cultural meaning.

A case study of delivery service of Chinese food for second-generation Chinese American was described. The feedback from target user showed that the service could connect them with their ethnic cultural identity. The case is an intrinsic case that examined the relationship between second-generation immigrants in New York with food and culture, but in fact, it developed into an instrumental case study through seeking to understand the issue of resolving the diminished cultural identities of minority (ethnically) groups by food design. UCED Model can help to frame research areas and provide rich and informative design clues in the food design process.

As future works, based on UCED Model, more concrete approaches can be explored, and practices can be implemented to produce more insights for culture-related solutions for society.

6 References


About the Authors:

**Guo Yinman** Ph.D Student in School of Design, Hunan University, China. Her main research areas include design for social innovation, service design, design thinking, cross-cultural design.

**JI TIE** Ph.D, Professor, Ph.D Advisor, Vice Dean of Hunan University School of Design. His main research areas include Digital Products and Service Design Based on Community Networks, Sustainable Design and Social Innovation, Cross Culture and Media Design.