

# Architectural Design Process Combined with Social Media Technology A Case Study on Urban Creativity and Placemaking Strategy in Taiwan

Yuling Tsai<sup>1,\*</sup>, Bart Dewancker<sup>1</sup>

<sup>1</sup> Department of Architecture, The University of Kitakyushu

\*Corresponding author. Email: [yulingt@gmail.com](mailto:yulingt@gmail.com)

## ABSTRACT

Social media has been part of a human's daily life that usually becomes one of the communication tools in this social environment. Social media has changed the traditional architectural design process; people will know, hear, and learn from online technology. Nowadays, a design project cannot just focus on the spatial relationship; to execution, the architectural design project is essential to connect people's minds. A strengthened link between architectural design and all kinds of social media in the digital era is expected to reinforce the idea of urban creativity and place-making strategy. In Taiwan, the participatory place-making strategy put into practice this research mainly focused on applying Facebook, YouTube, and website with the design process. Social media technology is designed to develop the architectural project process that has been seen and communicated to the public; through this platform, people can brainstorm the idea easily and adjust comments quickly. Furthermore, it will indirectly tie up the connection between the place and people, effective communication, teamwork, self-learning, and environmental design to implement the social practice. Also, place-making is established based on a CO-UP Studio within the architectural design group by combining professional skills and operating social media together. All results indicate that the CO-UP studio is attracted by people with initiative, leadership, and execution characteristics to operate a real project in an urban area as a design topic independently according to the specific objectives in Taiwan.

**Keywords:** Design process, Placemaking, Social media, CO-UP Studio.

## 1. INTRODUCTION

In recent discussions of the architectural design process, a controversial aspect has been digital media is a new design technology in architectural design. On the one hand, some argue that digital media is part of the architectural education system. On the other hand, others argue that digital media shouldn't be involved in the architectural design process. However, neither of these arguments considers the alternative view that digital media currently play an important role in architectural education training.

A complete architectural design training will focus on different aspects of lessons and educations, from design thinking, theory, architecture history, construction, and practice. Students can learn the acquaintance from the

university program and education scholars. Architecture is related to human science, art, and social science subjects. It is about environmental issues, social culture, and human behavior; additionally, architecture design is a situation where people are peaceful and agree with each other, or when things seem right or suitable. In this research perspective, architecture design is the in-between harmony place and people.

Today, studies of the architectural design process have indicated that the internet is slowly dominated by design thinking and method, even though it has taught or invited skillful experts from the professional field. However, it is not clear that this conclusion applies to the idea of digital media as part of the design strategy still becomes an abstract thought during the overall architectural design process. People see digital media as

a new design tool that proposes their design in machine-readable or digital architecture form on architectural design. Examples of projects often discussed by Frank Owen Gehry, Walt Disney Concert Hall, and Dame Zaha Mohammad Hadid. Generally speaking, digital is any data represented with a series of digits, and media refers to a method of broadcasting or communicating information together. Digital media refers to any information that is broadcasted to the public, is transmitted from the internet for viewing, which everyone hears very common is social media. To put it another way, the architectural design process combined with social media technology will bring the design process and its outcome to a new scheme level.

### ***1.1. Urban Culture Dynamics***

In making this comment, Professor Tom Porter explains, "Dynamic is the sign of life. Dynamic implies movement, and movement involves energy and time." Culture and history create the city's image; this image represents the value in an urban environment. A sustainable urban environment is a society-wide long-term concern; moreover, it remains the quality of citizens' lives, not just the physical requirement; the majority is the mental need that we need to be noticed.

Urban culture dynamics in this research will indicate as a three-dimension place with human satisfaction. The place can be defined as meaningful existing in this social environment. Technology brings tremendous convenience to this society, but it indirectly decreases our landscape's value, both in human relations and urban identity. Consequently, educators continue developing the proper architecture design education and expressing the design value for the next young generation to become the urgent takes in architectural pedagogy.

### ***1.2. Social Networking Sites (SNSs)***

Social networks have traced the concept back to 1967, called "Small World Phenomenon" by Stanley Milgram. Professor Milgram was a psychologist from Harvard University; the research was examining the average path length for social networks of people in the United States. He suggested that human society is a small-world-type network characterized by short path-lengths. The experiments are frequently associated with the theory "Six Degrees of Separation." As everyone knows, a social networking site is also known as a social website, an online platform that provides users' information such as a public profile, user images, or events. It establishes different rules for connections. A user can confirm or deny the new person's request to interact or not; during the connection phase, people can make their own decision by allowing or inviting this further new user from the suggestion list to make more connections. People create their person's network background to

introduce themselves like LinkedIn, a person's professional date and his major, the skills, or the interest. It is more like a digital business card that has a more detailed description.

In the last decade, social networking sites have begun a serious revolution until the name social media comes out, from writing an email to instant message and Skype, personal blog to Facebook. The internet technology first brings interaction to the public or semi-public profile page. Social media's emergence has the connection and profiles, combines with the digital tools to share information, even emotions online easily and quickly. While social media straddles the line between personal and business, it is beneficial for a specific culture, purpose, or user base. For instance, fan page or industrial groups, within click the Like button (thumbs-up), share or follow on the news feed, open a new page of communication in this society's markets.

### ***1.3. Site Location***

The Tungkmen Market was once Taiwan's largest market as people were spoken at loud in the old-time; this particular market holds many memories of different generations. The Tungkmen Market was once the Hsinchu city's first commercial store in the old town's eastern district in Hsinchu. This market has been standing in Hsinchu for over one hundred years; a two-story building was built by wood, operating as a commercial collection store.

The Tungkmen Market was completely rebuilt in 1977 after it had been destroyed by fire, a rectangular concrete building where it stored the first escalator in Hsinchu city. This architecture building was converted into a three-story with four atriums architecture and one basement floor; it starts with a regular structure, a 3-meter x 3-meter module for the basic standard stall space, which created more than 500 stalls inside the building. At first, people came to shopping, either food or fashion, seller imported boutiques from all over the world. Suddenly, Tungkmen Market became a fashionable, advanced synonymous; a public architecture represented Hsinchu city's prosperity and its social culture at the time. Unfortunately, with the shift of business circles, consumption habits change to decline. More than half of the stalls were closed and resulted in many low-income people or homeless stay in the market that cause certain social issues.

Fortunately, in recent years, the Hsinchu city government has redefined Tungkmen Market's status in Hsinchu city to create a new urban city image. Hsinchu city government promotes different perspectives development of the Tungkmen market industry to introduce many young entrepreneurs who have begun their entrepreneurship to settle in. They have started to be lively during day and night, from traditional to new

business, daily fresh, retail, restaurant, café, antiques, and studios bringing new life to this old market. To be sure, a new urban creativity phenomenon starts to grow in this historical market environment.



Figure 1. Location of Tugmen in Hsinchu city.

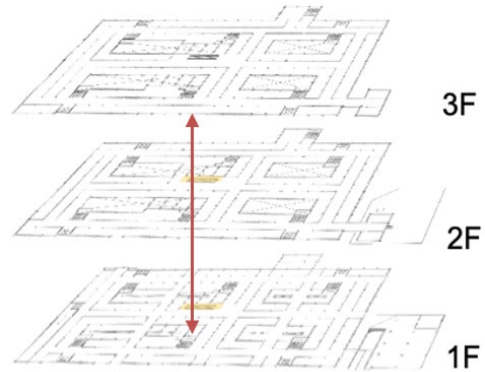


Figure 2. Floor plans of Tugmen Market.



Figure 3. History timeline of Tugmen market.

## 2. METHODOLOGY

The architecture design studio is a special learning topic compared to other social science subjects. Common senses dictate that architecture design studios will teach everything about designing a space or a place individually at the university. In the discussion of this research study, one controversial issue has been discussing a new habitant stay in the Tugmen Market: it will become an invader to those in this community for a long time. On the one hand, the new generation argues that the Tugmen market's environment is dirty and dark. On the other hand, the older generation contends this is the traditional culture representing the time of urban identity. Others even maintain to demolition the whole building. My view is finding and learning from problems, participating in the community, and recruiting enthusiastic people, and combining social media technology in this research method.

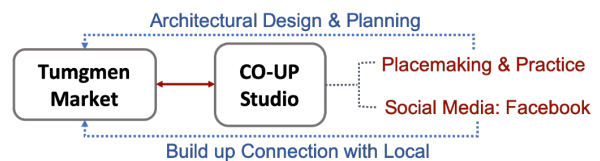


Figure 4. Concept of Research Flow Chart.

### 2.1. CO-UP Studio

Before starting the placemaking strategy in Tugmen Market, this research begins to recruit several students called CO-UP studios. It will be 11 students divide by two small teams that propose and constructed two stalls. The area of these two stalls is 3mx3m=9 square meter and 3mx6m=18 square meter. CO-UP studio is organized by three-part, students, educators, and experts. As its name, the CO-UP studio is simulated by the architecture firm but operating by students. They need to schedule the design process and the project's budget and construction

time by themselves. Ultimately, at stake here is dealing with teammates' cooperative attitude and confronting the client simultaneously. Simultaneously, the educator becomes a wizard, guiding and assisting through the design process; also, experts are involved in several special conditions to support the design process's extra technique.

**2.2. Participant Architectural Design with Social Media Method**

Site appraisal as known as site analysis often; the site appraisal is the first tangible piece of information produces during the design process. Since online resource has been very convenient, students who will visit and understand the environment condition are easy to know but hard to realize the essential meaning. Thus, we change the education behavior; students are stationed to be there every day, which they have a work schedule to arrange the site visiting. On the other hand, students become part of the market that will start to be like friends with the community and the retail store.



**Figure 5.** On site station as a studio culture



**Figure 6.** Interview the local business.

Even though students collect data from site visiting, if they don't start to communicate with the locals, there is still only a little information to support them from what they have been experienced. Interviewing is one of the participant methods for students who involve themselves, asking questions about the environmental contents and, hopefully, receiving answers from the locals. Because students had been surveying the site by themselves, the interview structure will use a semi-structured interview type. This type of interview is widely used for students, they had predetermined questions, but the order can be changed by the interviewer's perception of what seems most appropriate. In this situation, students might take

more time to back and forth to know the local's society's useful answers.

This project's mission is to recreate a place that promotes the owner's health, happiness, and well-being. Students provide the place identity through the design process because of the environment limitation and lack of cultural information. Participant design is often used to service a community's project, which in this case, who lives in the stalls or operating a business in Tumgmen Market. Students need to know virtually every person involved in this social community because the main purpose of participant design requires students to observe and attempt to become one of the community. A physical presence and chatting and involves local's daily life are part of the social culture. Students learn their social routines and habits, even their business management or non-verbal communication, to go through the process. To record the outcome, students designed a daily work timesheet and used social media to record what they have discovered from the environment every day.

**2.3. Placemaking with Social Media Strategy**

In the 1960s, Bernard Hunt architect noted that "We have theories, specialisms, regulations, exhortations, demonstration projects. We have planners. We have highway engineers. We have mixed-use, mixed tenure, architecture, community architecture, urban design, neighborhood strategy. But what seems to have happened is that we have simply lost the art of placemaking, or, put another way, we have lost the simple art of placemaking. We are good at putting up buildings, but we are bad at making places." Placemaking is one of the design approaches that often uses in a public area with basic society collaboration. The traditional architectural design may have a site to visit, an invisible client in a design project, but never have the opportunity to deal with the real problems and build it. Therefore, in this research participation, students will deal with environmental issues such as structure safety, electricity, water system, and social humanities issues. Nowadays, architecture students can render very nice graphics with beautiful light and texture of the space. However, they never understand the purpose; even the design concept looks perfect to be not realistic. The design has no connection to the local environment; thus, understanding the real world's circumstances for these young generations, this research advocates that placemaking is a good strategy to educate the architecture students.

In authors opinion, placemaking is matter because the design is about fixing problems, as everyone knows as PBL in pedagogy. Problem-based learning is facing problems; then, students will propose creative but specific solutions; these findings challenge students' design and decision abilities. Although social media may seem unrelated, it is crucial in today's concern over personal marketing. The architectural design process



becomes different from before, an interesting subject to emphasize in the design process.



Figure 7. Participant’s place join the placemaking project.



Figure 8. Department of architecture and urban planning on Facebook

Most people assume that social media is helpless in the architectural design process. But I say social media like Facebook stimulate participants' attention and their behavior. It is a big challenge for traditional architecture studio to go through the design progress combined with social media strategy; this research outcome is mixed. Create social media attract participants' minds that improve people's connection, but social media also affects the design communication when the project needs to be finished. Table 1 shows that findings during the

construction drawing phase are less attractive than schematic design and on-site construction. In the second process, they might think as homework that they do not realize the connection from schematic design transfer to on-site construction.

### 3. ANALYSIS AND DISCUSSIONS

To test the hypothesis that the architectural design process combined with social media technology could help the design process become efficient, this research preset social media from Facebook, which utilizes the Fan page and Group function. Our progress suggests social media should involve in the early design phase. CO-UP studio trained to represent an organization to connect to the local community (Tungmen Market); meantime, they uploaded and shared on Facebook that was opened to the public to view. Here are the results below.

#### 3.1. Social Media as A Design Tool in the Architectural Design Process

During the architectural design process, the internet or social media has become common today to search resources online instead of finding solutions from books; students' study method has also been developed into many options. Dialogue between projects' idea and people turn into instantly and very convenient. Moreover, in the documentary, the design process begins transparency and complete. Following the description, the user will indicate whether students, educators, or people in general.

Conventional wisdom has it that social media is a platform that allows people to create content and interact with each other. However, now social media becomes a tool to communicate during the design process. In the social network world, a social community is not just a

Table 1. The attraction of the Placemaking Process. (x No interest, △ No Feedback, ○ Interest, \*Team Leader)

Student	Schematic Design Process	Construction Drawing Process	On-Site Construction Process
Student 1 (5th year, Female)	○	○	○
Student 2 (5th year, Male)	○	△	○
Student 3 (5th year, Male)	○	△	△
Student 4 (5th year, Male)	○	△	△
*Student 5 (5th year, Female)	○	○	○
Student 6 (4th year, Female)	○	○	○
*Student 7 (4th year, Female)	○	△	○
Student 8 (4th year, Male)	○	○	○
Student 9 (4th year, Male)	○	△	○
Student 10 (4th year, Male)	x	△	x
Student 11 (4th year, Male)	○	△	△

particular channel. "Community" can refer to a group of people or a place where a group of people gathers online; in this case, all participants will join both the department and project's Facebook fan page and group. Furthermore, users also send the invitation to their friends, even friends' friends, to join too; the reason is spreading to each community as possible to catch people's attention.



Figure 9. Placemaking process share on Facebook.

The concept of interactive and user-driven behavior has been provided on Facebook easily, writes a post, or leaves a comment to be a new way to connect. Users post a description of the task; others leave comments to share experience, express emotion and update content. Communication the idea on Facebook is fast and direct because this interaction can take many forms. First, Sharing links to interesting content produced by third parties, multiple information can simulate a user's creation. Second, users can understand each task at any time, no matter public updates to a profile, including information on current activities, sharing photos, videos, and posts. Finally, users can review and organize the project process if users are well-planned for the posting schedule and content.

### 3.2. The impact of Social Media in Urban Environment and Placemaking

Over the years, the city image problem is increasingly concerned by everyone. The masses are not satisfied with the city side's monotony, also dissatisfied with the "fashionable" architectural design. Therefore, urban design attention highlighting their characteristics is an important part of shaping the city's attractive image. Speaking of Hsinchu city, people will associate with Science Park, hardly realizing that Hsinchu city can be traced back to 1827. Tumgmen Market is hidden in this old town urban environment that is surrounded by many new development buildings. Hsinchu city government is trying to reverse the image of the city. Tumgmen Market slowly starts a new operating system. One of the strategies is to use social media marketing by using the language of the young generation. Likewise, to allow young students to organize activities, exhibitions, residents, and shops, they can exchange parties in this special building.

The participatory placemaking strategy in the architecture education system brings more virtually and challenge. In this case, Practice in the Tumgmen Market, the participatory placemaking design has been slow to affect the surrounding neighborhood. From the local perspective, local people did not welcome students to stay because they always think that students are only doing their assignment; what they need is who are willing to help them change. Therefore, Tumgmen Market-related course results or movements come to the first success. CO-UP studio starts social media marketing by using the Facebook platform. Since architectural design processes are posted on different Facebook fan pages or groups, the CO-UP studio is not just a Tumgmen Market guide. Their post is likely to be related topics to discuss or to use the recent hot topic extension to connect the

Table 2. The attraction on Facebook by Users. (x No interest, △ No Feedback, ○ Interest, \*Team Leader)

Student	Schematic Design Process	Interaction Online Process	On-Site Construction Process
Student 1 (5th year, Female)	○	△	○
Student 2 (5th year, Male)	○	○	○
Student 3 (5th year, Male)	△	○	○
Student 4 (5th year, Male)	△	△	○
*Student 5 (5th year, Female)	x	○	○
Student 6 (4th year, Female)	○	○	○
*Student 7 (4th year, Female)	○	△	○
Student 8 (4th year, Male)	x	○	○
Student 9 (4th year, Male)	x	△	○
Student 10 (4th year, Male)	x	△	○
Student 11 (4th year, Male)	△	△	○

existing audience and new target audience. For all participants from this Tumgmen community, they should be aware of starting to have the duty to manage social media; they are one of the elements to present the urban identity such as culture, local story, and business.

While it is true that social marketing and content marketing are inextricably linked, community marketing is also spread content with a fresher, more professional way to package content, to maximize the benefits of content marketing. It does not necessarily follow that urban creativity and placemaking can solve the social issue or political aspects.

#### **4. CONCLUSIONS**

The finding that social media create an attractive purpose for students during their design phase, such as visual expression, the project to be seen in public and online, encourages their learning interest to achieve an accomplishment. This course results or data information can also be published on social media. The place can become a space for the interactive exchange of market information. Hoping to use the placemaking project to transform and reuse, attract more people to Tumgmen Market to reconnect the marketplace. Moreover, inject more young vitality in this over a hundred years of architectural building.

However, some circumstances will accidentally occur that students need to have the skill to know how to adjust their attitude and actions during the design and placemaking progress. In Tumgmen Market, there are still many elder generations who live there for their entire life; due to the history and policy of Tumgmen Market, some stories will bring the advantage. However, it may also cause some problems; people will speak out how the political issues, and it adds their emotion to us. For instance, an academic group might involve in an odd situation between the city government and the community.

Using social media technology as a design tool for the younger generation tells us a great deal about promoting what we do. It will also increase other societal problems like negative criticism, emotional language, and forge impression from anywhere? With social network technology everywhere, Facebook grows, social media has positive and negative effects on our society and value. Undeniably, social media shows the power of traditional media's limitation by spreading and sharing an idea, looks interact with others but barely connect to their mind. Young people on the internet always want to render the "perfect" image, even depressed, and pretend to be happy. This behavior sluggishly creates pressure on themselves without notice; social media has caused young people psychological health crisis; this is a global problem. In summary, this research study shows that educators demonstrate an appropriate perception among

the physical sense and mental cognitive is important during the architectural design process, but how deeply involved in the design process or what platforms a social media is involved as a design tool remains unresolved.

#### **ACKNOWLEDGMENT**

Authors would like to thank all my students who contributed research's on this architectural design participation in Tumgmen Market. Without their hard work and trust in me, the practice project would not be constructed. My thanks also go to people who lived or operated a Tumgmen Market; they were very kind and generous to my students and me. People trust us to reconstruct their space and invite us to join their lives, even just a simple meal that warmest all our hearts. Additionally, several officers from Hsinchu city government and professors from the Department of Architecture and Urban Planning at Chun Hua university their bits advice contributed directly to this study's development.

#### **REFERENCES**

- [1] I. Grosvenor, School, Reaktion Books Ltd, Islington, 2008.
- [2] C. Robson, Real World Research, Blackwell Publishers Ltd, Oxford, 1993.
- [3] T. Porter, Archispeak: An Illustrated Guide to Architectural Terms, Spon Press, London, 2004.
- [4] K. Lynch, The Image of the City, The MIT Press, Cambridge, 1960.
- [5] H. Hertzberger, Lessons for Students in Architecture, 101 Publishers, Rotterdam, 1991.
- [6] Chung Hwa University Department of Architecture and Urban Planning USR Project Club, Unnamed images of department of architecture and urban planning project (in Chinese), Facebook, 2019.