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Technology-supported Citizens Participation in Taiwan

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1 ABSTRACT

The use of Internet technology and smart mobile devices had inspired and changed the public awareness and attitudes of urban planning and architecture.

One of the big changes is that people no longer gather their information through a single source. Instead, information is published and shared by different organizations and people who have access to the Internet. People not only share information, but also amend the data provided by each other. Through the various functions of smartphones, people can provide and edit the received information. By continuously editing, publishing, and revising the information online, more people could understand the topics.

The same concept applies to data collection, analysis, establishing theory and collective realization. As the process undergo constant discussion, urban planning and architectural problems can be properly recognizing and to uncover appropriate solutions. This also led to people willing to actively participate in planning.

In recent years, people in Taiwan influence the status of the political, economic and society through the internet. With some cases, such as student movement and emergency relief, will shown how people use the internet and smart mobile device. At the same time investigate in which kind of information can be effectively, properly communicated to the public and influence public participation.

2 INTRODUCTION

The use of internet technology and smart mobile devices had inspired and changed the public awareness and attitudes of urban planning and architecture.

One of the big changes is that people no longer gather their information through a single source. Instead, information is published and shared by different organizations and people who have access to the internet. That do not only share information but also amend the data provided by each other. Through the various functions of smartphones, people can provide and edit the received information. By continuously editing, publishing, and revising the information on networks, users could understand the topics. Information, ideas, messages and discussions spread like viruses (Gladwell 2000). The Internet and smart devices are not only a tool but a platform of organizational operation, cultural expression and political autonomy.

In recent years, networked social movements have become fairly frequent in the world. In Taiwan, the first citizen protests caused by network was in 2013. A draftee suspected of improper corporal punishment, was dead in the last few days during his military service, but the Ministry of National Defense of Taiwan didn't provide a reason why and how he died, his family refused government and military just paid consolation money but hidden the truth. With social media and network, Bulletin Board System (BBS) and Facebook, that protests inspired around a hundred thousand people to take part. More and more network media and social community such as "g0v" and "Watch out!", began to focus on many social issues and information presented to the public. Stimulated by networked social movements, planners and governments are trying to get more support and recognition by Facebook and/or blogs. Government start to create homepage and Facebook pages for urban development project.

In this paper, I would like to give some examples about the Taiwan's civic movement initiated by network. I will also try to study how people who join those movements are using the social network and media, and may help and change during citizen participation.

3 DIGITAL-ENVIRONMENT STATUS AND NETWORKED SOCIAL MOVEMENT IN TAIWAN

3.1 Taiwan's Internet development status

Network development in Taiwan can be dated back to April 1985, with the establishment of academic networks. Under the sponsorship of IBM, the Ministry of Education set up computer terminal workstations in eight public universities, connected with the IBM 4341 host of the Ministry of Education Computing Center

when the very beginning of the academic network prototype appears. In 1994, HiNet, the first commercial network started operations. In 1997, the mobile communications business started. And to this day, according to the Taiwan Network Information Center's latest poll in 2015, the Taiwanese internet penetration rate is 80.3%. About 1,883 millions people use the web, whereas for 18-30 year old people is 100%.¹ 89.2% of respondents have a network at home, about 7,498,712 families. Most people access by desktop computers (72.8%), secondly by mobile phone with an internet connection (57.4%). 68.6% households can access internet use through optical network and/or Asymmetric Digital Subscriber Line (ADSL). After the 4G network started, 4.1% families use 4G wifi sharing device, and 26.8% have other internet access methods, such as optical network and ADSL. In addition, in Taiwan 67.9% people have used mobile network, whereas 55% are smartphones and 4G. 61.0% people have access to internet by wireless LAN.

According the report in 2014 by Market Intelligence & Consulting Institute (MIC), 96.2% internet user had recently used community websites such as Facebook (95.8%) and Google+ (24.7%), 54.7% of the users like to use multimedia to share information. 39.6% of Taiwanese users often use network forums, the top five in order, is Mobile01 (51.4%), PTT (51.2%), Yahoo! Answers (46.2%), eyny.com (35.5%) and ck101.com (23.4%). Among them, PTT is one of the earliest Bulletin Board System (BBS) in Taiwan.

PTT was founded by Yi-Chin Tu and other students from the National Taiwan University in 1995, and it is currently administrated by the Electronic BBS Research Society as a non-commercial and open-source BBS. It has more than 1.5 million registered users, with over 150,000 users online during peak hours. The BBS has over 20,000 boards covering a multitude of topics, and more than 20,000 articles and 500,000 comments are posted per day.² The operating mode is outdated, you can only use keyboard but mouse, new users have to provide a non-free e-mail to apply for an account. They have very complete and constantly edited "board rules", each board have moderator(s) elected by the users to maintain order. Apart from inappropriate remarks which will be removed, moderators themselves will be supervised by other users. Users who have too many inappropriate comments or topics may be prevented from speaking, or in some cases their account will be deleted. They don't want to establish an authoritarian discussion place, on the contrary, they form a very interesting utopia. PTT welcome to speak freely, promote freedom of expression and thought. The rules, the concept of non-commercial and political presence is to ensure that freedom. According to the developer's description, they encourage everyone according with their abilities to help others. The atmosphere is one of true reflection from the users not put of business interests but to help others, and this slowly affected non-users in the real society.

Current Facebook users and other network communities always reference the topics from PTT, and share it with non-PTT users. Compared to the new network communication, PTT it is not easy to assess, but it accumulated a large number of users until it became an important cornerstone of the network discussed.

3.2 Networked social movement in Taiwan

In the evening of March 19, 2014, more than two hundred students in Taipei, broke through the police's blockade into the Legislative Yuan and occupied the parliament chamber, in order to protest against the government examined the "Cross-Strait Service Trade Agreement (CSSTA)" on March 17. This treaty would be devastating small and medium-sized businesses, publishing industries, and could probably let democracy and freedom in Taiwan get controlled by China. They conveyed this movement right away on Facebook and other communication software by smartphone, internet and social media to stimulate more people to participate in this activity. On March 30, the influx about forty millions of protesters (the police estimated them at 110,000)³ surrounded the Legislative Yuan and the Taipei Po Ai district. Just like for other moments of revolution over the past few years in other countries which were initiated by the network, people confronted and joined together during the occupation because governments were perceived not just as corrupt but unjust (Castells, 2012). Compared with earlier civic movements, there was a huge difference in the number of participants and also the fact that people took control of authority over information and media,

¹ Taiwan Internet chronological history research project, 2005

² https://en.wikipedia.org/wiki/PTT_Bulletin_Board_System

³ Taiwan police is use "Herbert Jacobs Method" to calculate the number of protests. But there is a person named "weijidai" on internet use Geographic Information System with AutoCAD, calculate the road area and three people per square meter, draw about 45 million people participate at that day.

which inspired the willingness of young people to care about politics, social justice and urban issues in Taiwan.

It started by sharing information on network. Before March 17th, around 8,500 topics about CSSTA could be found on google search per month, but after the first day of movement, it raised to 52,600 topics. This is not yet included in the number of information which are shared on Facebook. In the first moment, people shared information by texts, but after a few hours, a student used iPad through the internet live webcasts platform “Ustream”, shared his live video on internet, and successfully grab the attention of web users in the middle of the night.

At the beginning, when the information about CSSTA were start passed on the web, only some text data attempted to explain the incomprehensible agreements to the public, but then, many text-based information was transferred into diagrams and infographics which are easier to share on smart devices. Under the condition of live events of the movement, background information continued to be spread, more and more people identified with this protest and tried to provided their assistance. With smartphones, the presence of protesters attracted more people to participate. In the first instance, participants just want to take advantage of numbers of people from outside to stop the police storming into the parliament chamber, after spread the information more and more people started to identify with this struggle and began to join this movement. These participants were not only in Taiwan but also overseas.

Some people began to give speeches, musical performances and some other activities. While more and more people got involved, people started a variety of divisions to maintain operations on the active site and order. In addition to allocation of supplies and streets kept clean (there was no garbage left behind in the field), various professionals began to stand up and help people at the event: for example, an advisory group composed of lawyers protected participants in social movement and helped students to understand their legal and criminal responsibilities; doctors in the medical team helped participants, the police during the movement and the picketing troops to prevent persistent individuals who took the opportunity to attack the students. After the movement, architects and building professionals tried to repair the slightly damaged Conclave after the student occupation, but were stopped by the government because of concerns about legal issues (because all public space projects have to follow a set of bureaucratic procedures). They changed to damage assessment and valuation, and put evaluation results on the internet to counter the price which was claimed by government or certain media.

Date	The Name of movement	Movement process	The number of participants	Initiated by the network
Mar. 19, 1990	Wild Lily student movement	The demonstrators sought direct elections of Taiwan's president and vice president and new popular elections for all representative in the National Assembly.	6,000+	No
Nov. 2008 - Jan. 2009	The Wild Strawberries Movement	Police actions on protests aimed at Chen suppressed the display of Taiwan's national flag and the playing of Taiwanese songs. This prompted a group of 400 students in Taipei, Taiwan to begin a sit-in in front of the Executive Yuan in protest of Taiwan's Parade and Assembly Law.	400	Yes
Jul. 20, 2013 & Aug. 08. 2013	White Shirt Counter-protest	Two protests for Death of Hung Chung-chiu, initiated by group “Citizen 1985”. In response to these protests Legislative Yuan approved major reforms to Taiwan's military justice system, which included the abolition of court martial during peacetime and transfer of military prisoners to civilian prisons.	30,000+ protesters at Jul. 20, 100,000+ protesters at Aug. 08	Yes
Mar. 18, 2014 – April 10, 2014 (23 days)	Sunflower student movement	It is associated with a protest movement driven by a coalition of students and civic groups that came to a head in the Legislative Yuan and, later, also the Executive Yuan of Taiwan. The activists protested the passing of the CSSTA by the ruling party Kuomintang (KMT) at the legislature without clause-by-clause review.	400+ protesters in the chamber 10,000+ protesters surrounding the Yuan	Yes

Table 1: Taiwan citizen movements.

Not only discussions but also broadcasts help more people acquire knowledge about this event, but they also corrected false information spread on the internet. Such incorrect information from the government and the

media was refuted at different discussions and with evidence people had collected in real-time and in their presence. This was the way to continue collecting information, interpreting it, and keeping collect data, for re-interpretation through the online community network, spreading as the virus does (Gladwell, 2000).

On April 6, the Legislative Speaker Wang Jin-Pyng visited the occupied parliament chamber and promised to postpone review of the trade pact until legislation monitoring all cross agreements had been passed. In response to the April 6th concessions from Speaker Wang, the protesters held a press conference on April 7 stating they would vacate the Legislative Yuan on April 10 at 6 p.m. which they eventually did, and also to continue the movement in the broader Taiwan society. President Ma supported the students' decision to leave the legislature. The legislative chamber was fully cleaned by students before they left.

Manuel Castells examines the recent networked social movement in the world and provided several characteristics: 1) they are networked in multiple forms, 2) they become a movement by occupying the urban space, 3) movements are local and global at the same time, 4) spontaneous in their origin, they are usually triggered by a spark of indignation, 5) these are usually leaderless movements and 6) these movements are rarely programmatic movements (Castells 2012 & 2015). With the help of his investigation and the observations of the movement in Taiwan, urban planning participation was seen in a different view.

Although the Sunflower Movement was triggered by a spark of indignation, the reason why it achieved such a scale was due to the increase of users of network communities, digitized knowledge and the experience of many civic movement participants.

4 PARTICIPATION IN URBAN PLANNING IN TAIWAN

Basically, citizens have two ways of participating in urban planning: within the system and/or outside the system. The last chapter was about movements outside the system, and here we will provide some protests within the system of law.

	8. Citizen control	Degrees of citizen power
	7. Delegated power	
Public develop their own plans. Urban Planning Law § 24.	6. Partnership	Degrees of tokenism
Public hearing. Urban Planning Law § 19. Urban Planning Law Enforcement Rules in Taiwan Province § 5, 6.	5. Placation	
Opinion poll. Urban Planning Law § 25.	4. Consultation	
Explanatory meetings. Urban Planning Law § 19. Urban Planning Law Enforcement Rules in Taiwan Province § 5, 6. Land Acquisition Act § 10	3. Informing	
Public exhibition. Urban Planning Law § 19. Urban Planning Law Enforcement Rules in Taiwan Province § 5, 6. Urban Renewal Act § 19	2. Therapy	
	1. Manipulation	

Table 2: Arnstein’s ladder of citizen participation and the Urban planning related laws of Taiwan. (Arnstein, 1969)

4.1 Laws related to participation in urban planning in Taiwan

Some urban planning related laws are referring to public participation: Urban Planning Law, Urban Planning Law Enforcement Rules in Taiwan Province, Urban Renewal Act, Land Acquisition Act, etc.

When comparing the public participation in Taiwan with Arnstein’s ladder of citizen participation, it’s situated between 6) Partnership and 5) Placation. (Huang, 2005) But in fact, the situation of participation in Taiwan were not so optimistic.

In those laws and acts, holding certain meetings, such as explanatory meetings, public hearing, holding of hearings could make the public confused. There is no difference between explanatory meetings and public hearing as all meetings include only government's unilateral statements. No law can force government to take the opinions of the people in board. Holding of hearings takes place according to a program having the force of law that allows governments and stakeholders to present their evidence and debate with each other. But holding of hearings takes a lot of legal and government resources, and high barrier conditions to participate in the meeting.

4.2 The issues of public participation in urban planning

So far, the public is a passive part in urban planning participation. Here are some summarized results from other studies. (Ou, J. Y. & Cai, T. B., 1996. Liao, Y. D., 1998) to give reasons for lack of public participation:

- The overall review process of planning and cannot cause public attention.
- People do not understand the overall review process.
- The comments made by the public, considered mostly out of selfishness, cannot be adopted by the Planning Commission. But most people think that this defies public opinion.
- The method of participation is weak; people only have a chance to express their opinions until the general considerations of plans. The public has no opportunity to communicate on the most important substantive planning program.
- Explanatory meetings are ineffective, and most of the meetings are during working time.
- Reconsideration for second interventions could become the way to raise land prices by some representatives and consortiums.
- Announcements in newspapers is often a formality.
- There is information asymmetry between the public and the government.

5 CHANGING THE PARTICIPATION BY NETWORK SOCIETY AND SMART DEVICES

Urban planning is a complex task and many different professions take part in the process. However, people in Taiwan can only be part of it at exhibitions (30 days), public hearings and/or briefings to understand the contents of planning and they are unable to exchange objections and ideas with government and planners. The big difference with the Sunflower Movement is that participants incorporated themselves in the whole process via the Internet. Not only did they show images and videos but people also asked and answered many questions immediately on the web. This process allows them to refute incorrect information and can also fix it immediately if they make mistakes. When the police tried to tackle people in the building, people showed that they did not have any weapons and were reluctant to use violence. Their peaceful reaction had broken the rumors which some TV news called "The riot!". When some students looked up and interfered with the Legislators' personal belongings they were immediately discovered and the leaders of the movement had stopped them and asked everyone not to break any objects in the room. People who participated were watched, but sharing information could also attract more participation and help. During the movement, people provided batteries, food and even some professional knowledge of computer technology, medical treatment or legal assistance. Below are some network social movement modes of operation which could apply to urban planning.

- The whole process of planning should be networked in multiple networks on the Internet. An urban planning project is a long turn work and a lot of different professions need to take part, but citizens in Taiwan can only join into some project procedures. The planning project will be strictly monitored by people once they agree with it. Several studies concluded that citizens should be allowed to participate in the planning process, but it should be the other way round. Planning should take part in people's wants and needs which can be achieved most easily through the social network at present. The planning team should get into the networks of groups of participants instead of doing deals with individuals. This would avoid a bureaucratic system's communication gap and the problem of covert negotiations.

- The right to get information and open data. Information is one of the basic foundations of participation. With enough information, people can understand the context of planning and then provide informed advice. The Taiwan governments has started to open data slowly but still many problems persist. First, there is the definition of open data and secondly the accessibility is this data, be it human-readable or machine-readable. When the Taipei city government shared data of buses, a person produced an application "Speed Bus" for smartphones which showed user where the buses were and when they would arrive at the stop, but after some days the application suddenly no longer worked. The application developer said that this was because the data provided by the city government was changed and he was working on these changes. However, a news reporter found that the developer had interfaced government data and information illegally. According to the department of transportation of Taipei the city government said that they had permitted users to use all the open data but that the software developer was not entitled to sell the data, while the chief of Taipei transportation police said that users did not apply to the government for information interfacing. Conversely, the information which was produced by scholars for all the participants of the movement allowed all kinds of uses and they took videos, photos and all kinds of "views". People started to ask the government to do the same thing for their own activities. For example, during government meetings, there should be live recording and permission for reporters and citizens take videos. The public can make judgments more easily it has access to many sources of information. Many people took the initiative to conduct activities in the internet, interpreting and re-interpreting data and debates. In 2011, the government required that all real estate transaction prices had to be uploaded online in order to curb speculation in housing prices. People can also access and check the rates. In addition to the official website, there is also a website which combines pollution information and other environmental deficiencies. Since the student movement, more and more young people in Taiwan have become interested in politics, and they reacted to issues raised by the legislature in video recordings. In the past, questions of the Legislative Yuan only passed on TV news according to its views. But now members of the political board of PTT are posting the full videos and sorting out the transcripts. Since the last movement a website hosted by Watchout, Co. (沃草) continues posting videos from questions.



Fig. 1: The website of Housing Prices. (<http://www.foundi.info/>)

- Constant interpretation and re-interpretation. Open data is the basic foundation, but information will be shared more easily by some people who interpret it. The information on Internet will be edited, trimmed, supplemented, altered or changed into different form, and the entire context will be preserved as long as it does not get deleted. During the sunflower movement in Taiwan, the topic had been noticed because of information on new network media, as well as alternative interpretations by the internet users, bringing about more re-interpretations. At the beginning, a professor of economics from National Taiwan University tried to explain the CSSTA and how it can affect business in Taiwan.⁴ During the movement, that document became an important theoretical basis for

⁴ http://homepage.ntu.edu.tw/~ntuperc/conference-1-files/20130725_3_1.pdf

opposition agreement. People began adding more supplements and creating a lot of graphic explanations and infographics so called “For Dummies”. Even if the content of such style of information was extremely simplified it had attracted more people's attention who began to study the provisions of the original agreement.

Information has power only when used and applied effectively (Boon 1992; Martin 1984; Paez-Urdaneta 1989). A report with a map which showed the land liquefaction of Taipei as a jpeg file (Fig. 2) was hidden in a corner of the government's website. When it was reported on the news, people suspected that the government did not want to publish it because it might be affect the price of land.⁵ However, the japes files could not be analyzed by GIS and other mapping programs. Until 2016, after an earthquake struck with a magnitude of 6.4 28 km (17 mi) northeast of Pingtung City in southern Taiwan⁶, the safety of building construction had become a public concern again, the Central Geological Survey finally provided an online query system to provide the general public or professionals with relevant information (Fig. 3).

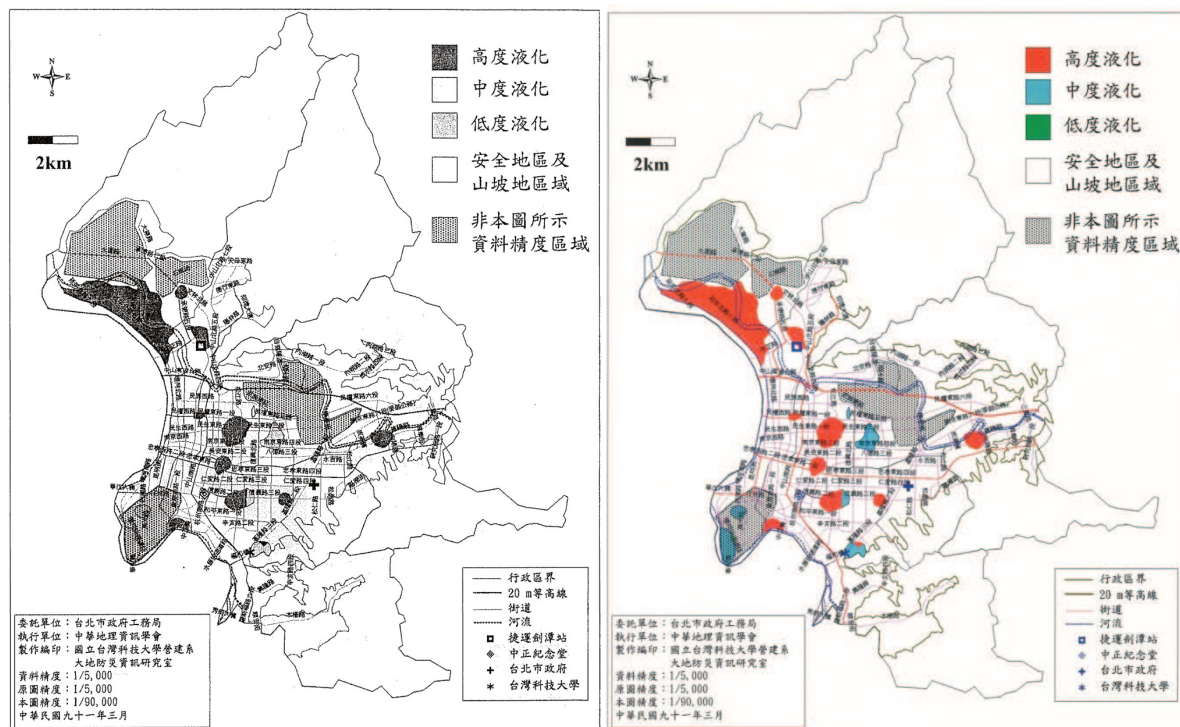


Fig. 2: The liquefaction map of Taipei. (Lee, S.H. 2002)

- Participation should not be limited by borders. Diversity of participants for urban planning is very important (Irvin & Stansbury 2004). During the movement and protests, participants may not have a direct link with issues but with identity. The demands and debates of the participants brought different perspectives to strengthen the depth and breadth of the discussions which requires a large numbers of people. In the past, participation in urban planning was always limited by space and time, and the number of people and the running time were reduced to a certain scale. The Internet had extended the the boundary of time and space (Castells 1996). It created a new platform to carry all kinds of information and a huge number of discussions and communications, one of the reasons why networks can accumulate a lot of power. In addition, planning even at a small scale will also affect the surrounding areas, environment and society. Reducing or restricting participation will only limit the possibility of rational conversations. The “Smart London Plan” – a project to support London's growth and look to what new approaches to innovation in digital technology can bring – mentioned: We will...ask Londoners, businesses and other stakeholders what ‘Smart London’ should look like... As a city London tried to use technology and networks to communicate with citizens about the future, and had invited not only the people in the city but also other stakeholders.

⁵姜毅宏、陳乃瑜 (2016, Feb. 16) 怕房價跌？北市土壤液化嚴重 馬英九14年前早知道. SET News. Retrieved Mar. 29, 2016 <http://www.setn.com/News.aspx?NewsID=124487>

⁶ Global Earthquake Epicenters (2016, Feb. 6.). "Map of the earthquake M6.4 – 28km NE of Pingtung, Taiwan". Geographic.org.

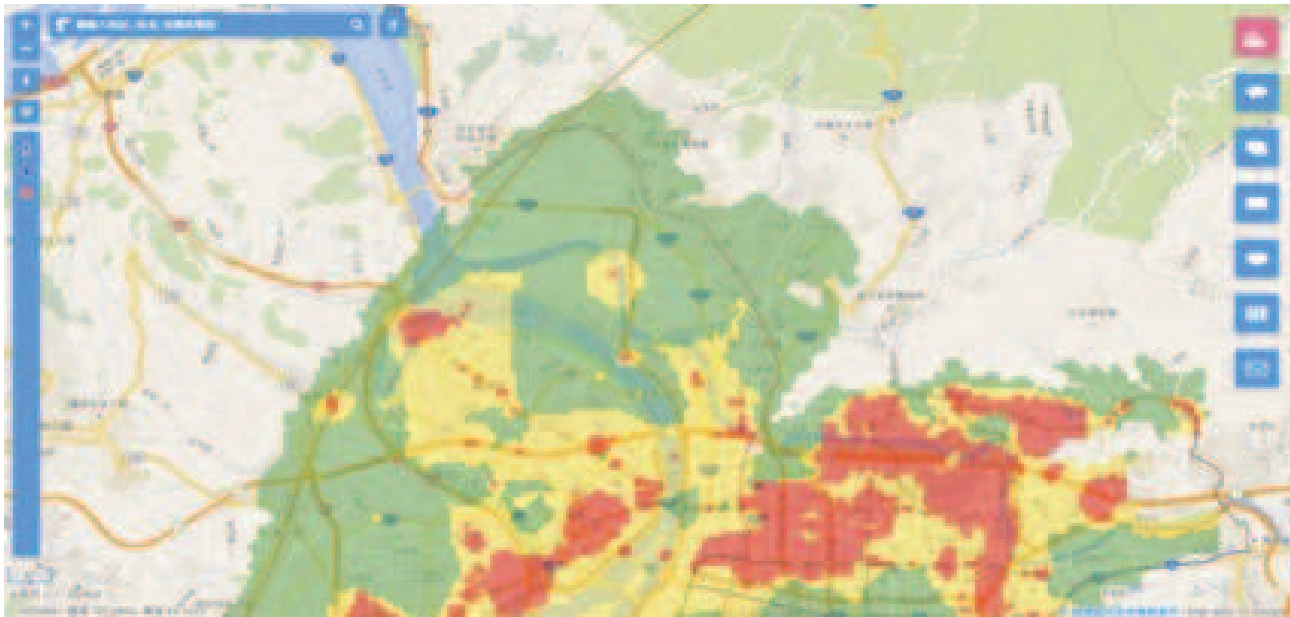


Fig. 3: The website of liquefaction map. (<http://www.geologycloud.tw/map/liquefaction/zh-tw>)

- Multiple participation which have legal effect. Action requires power to be able to do things. In addition to social movements, we need politics, which is the ability to decide what needs to be done,⁷ through the legal mechanism which was established by the democratic system, one of the effective methods. Yet in Taiwan, the participants can hardly ask the government to respond to their comments and concerns at public hearing.

6 CONCLUSION

After a long protest, and through the popularity of the network which enabled the cumulative building up of online digital information and knowledge, and the development of various networks, forums and digital communities, the Taiwanese people began to have deep and broad communications on the internet. The next issue is to turn these communication models into a workable system and extend it to more communities. It is difficult and very disappointing to let the public communicate with government by social movement and protest in a very short, explosive time. Instead, we should construct a legislation system of participation and ensure that the public has the right to use technology and network to participate in and control urban planning. We also have to establish a framework of discussion on the social network and take it forward to non-network communities.

Planners and designers have to know that the most important subject of cities are its people. In addition to relying on the government to improve the legislative system, they could transfer knowledge of the urban planning issues by providing information and involving people in communication and discussion. The knowledge produced by planners and scholars needs to be opened up, digitized and translated into information which is easy to understand and can be transferred to all kinds of carriers. This process could also be undertaken by other network users, without being limited, misunderstood or misused, because according to the present experience, they would summarise the conclusions accepted by the general public if the number of participants is large.

In the end, we shouldn't underestimate the strong and active force from a powerful identity. The urban space created by the public has a lot of energy, probably better than that created by the planners and it is a process rather than an end in itself, as has been presented by Jan Jacob and proven by our old neighborhoods in Taiwan.

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⁷ Querol, R. D. (2016, Jun. 25). Zygmunt Bauman: "Social Media are a Trap". ELPAÍS. Retrieved from http://elpais.com/elpais/2016/01/19/inenglish/1453208692_424660.html

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