

Case Data Structure for Participedia 3.0

OVERVIEW

Title of Case

Taiwan 2021 Holopolis Citizen Deliberation

General Issues

- Governance and Political Institutions
- Science and Technology

Specific Topics

- Citizenship and Role of Citizens
- Information and Communications Technology
- Public Participation

Narrative

Brief Description

Taiwan's government launched Holopolis which are virtual reality (VR) experiments that seek to empower citizens and create strong relationships with the government. VR technology helps to foster dialogue through online participation. Taiwan's government aims to promote democracy and enhance citizens' participation in different issues.

Problems and Purpose

The aim of Holopolis is to promote interaction between the Taiwanese people and government. It leverages the power of technology by using open collaboration meetings to promote good governance and solve problems faced by citizens. Additionally, it is concerned with creating conversations on local policy issues. Shared virtual reality will help people to create consensus with government authorities about local policy issues. The purpose of the experiment is to help people to listen and view different perspectives. Reflecting on various problems and issues helps people to identify common solutions that can lead to problem-solving. The ultimate goal will be to create consensus on key policy issues at the local level.

Background History and Context

Taiwan was a dictatorship that was ruled by an authoritarian government from independence. However, the authoritarian government made the transition towards democracy when it had achieved economic development and growth. Taiwan's experience with democracy is relatively new. Decades of authoritarian rule were followed by a transition towards multi-party system and democracy in the late 1980s and early 1990s. Historically, Taiwan had communist associations that collaborated with each other to find common solutions. The gØv movement started in 2012 when a number of Taiwanese programmers created a citizen auditing system^[1]. The system would evaluate the central government's budget. Data from government sources was made public. An interactive and user-friendly system was established that helped citizens to rate and post comments on various items in the budget.

Taiwan's rapid economic growth has also contributed towards advances in indigenous science and technology. Information technology is an area where the government has made extensive efforts to promote growth. Moreover, they have also recognized the need for using technology to solve problems, enhance governance mechanisms, and promote sound relationships between the masses and government. Taiwan's government has identified the need for online collaboration to strengthen democracy and governance. The rationale is that technology should be present in the spaces where citizens live. Consequently, it would be possible to include people with agenda-setting power and help strengthen democracy. Pol.is was used in 2015 to solve Uber drivers' matters^[2]. The use of the technology is important because it allowed Taiwan to experiment with digital democracy tools that could enhance participation and solve the problems of the people. Holopolis was initiated in 2017 with a test meeting with motorcycle drivers that wanted relaxation in rule about direct left turns^[3]. Motorcyclists used helmet camera videos to help raise awareness about their concerns. Subsequently, there have been many meetings where immersive elements are used.

[¹] Lin, C., 2018. *How Taiwan is leading a digital democracy movement* | GovInsider. [online] GovInsider. Available at: <<https://govinsider.asia/connected-gov/how-taiwan-is-leading-a-digital-democracy-movement-shuyang-lin/>>.

[²] Democraticinnovations. 2019. *Holopolis uses virtual reality in public deliberation*. [online] Available at: <<https://www.democraticinnovations.com/project/holopolis-uses-virtual-reality-in-public-deliberation/>>.

[³] Democraticinnovations. 2019. *Holopolis uses virtual reality in public deliberation*. [online] Available at: <<https://www.democraticinnovations.com/project/holopolis-uses-virtual-reality-in-public-deliberation/>>.

Organizing, Supporting, and Funding Entities

Holopolis is a project that was started by the Public Digital Innovation Space (PDIS) which is an innovation lab owned by the Taiwanese government. PDIS helps to promote and sponsor the use of next generation digital tools that can be used to enhance public participation and create participatory democracy in the country^[4]. PDIS has investigated the ways that digital technology can empower citizens. It is developing platforms and mechanisms that can enhance government services and help citizens to play a proactive role in democracy and policy issues. The project is the brainchild of Shu Yang Lin who is a design consultant at PDIS^[5]. She has extensively worked on open government, social innovation, and youth council. Another co-founder is Audrey Tang who is Taiwan's digital minister. Audrey Tang has promoted the use of digital technologies to augment democracy in the country^[6]. She has spearheaded the need for strengthening links between the state and its citizens. PDIS is using holopolis to increase interaction between citizens and Taiwanese government officials. It leverages artificial intelligence and virtual reality to provide material and space to promote and enhance democratic mechanisms in the country.

Participant Recruitment and Selection

Holopolis is open to all Taiwanese citizens. The initiative aims to strengthen local democracy by creating links between the people and local government. Taiwanese citizens living in any neighborhood or town or area can sign petitions to demand a meeting with public officials. Holopolis is an improvement on prior systems because it offers flexibility and robust operations. There have been 47 open collaboration meetings^[7]. Furthermore, the videos and transcripts of the meetings have been sent to 200,000 people in the country^[8]. At the moment, there is no data about the number of people that have attended the live streams of meetings. Participants are selected based on specific issues. For instance, the initiative held meetings with motorcycle drivers' concerns about left turn rules. The initiative is designed to solve local issues which means that it is currently being done on an experimental basis. Government entities or officials can also connect through the platform to hear the views and discussions of Taiwanese citizens.

[⁴] Pdis.nat.gov.tw. 2021. *Public Digital Innovation Space*. [online] Available at: <<https://pdis.nat.gov.tw/en/>>.

[⁵] Shuyanglin.com. n.d. *Shu Yang Lin* :). [online] Available at: <<https://www.shuyanglin.com/>>.

[⁶] Democraticinnovations. 2019. *Holopolis uses virtual reality in public deliberation*. [online] Available at: <<https://www.democraticinnovations.com/project/holopolis-uses-virtual-reality-in-public-deliberation/>>.

[⁷] Democraticinnovations. 2019. *Holopolis uses virtual reality in public deliberation*. [online] Available at: <<https://www.democraticinnovations.com/project/holopolis-uses-virtual-reality-in-public-deliberation/>>.

[⁸] Democraticinnovations. 2019. *Holopolis uses virtual reality in public deliberation*. [online] Available at: <<https://www.democraticinnovations.com/project/holopolis-uses-virtual-reality-in-public-deliberation/>>.

Methods and Tools Used

Holopolis's method is based on public deliberation. This is an approach that government officials and public officials utilize to solve public policy programs. It considers values and evidence when tackling the problems. Holopolis is a type of deliberation where citizens are deeply involved with experts or officials to solve community problems. They participate in public decision making. Another method used is open collaboration that helps in discussions and engagement between the Taiwanese government and its people. Technology helps to facilitate open collaboration with the aim of ultimately reaching a consensus on local policy issues. Open collaboration fosters diverse ideas and promotes constructive dialogue to solve issues at the local level. It is also designed to enhance public trust with the government. Several tools have been utilized by Holopolis. In Taiwan, people need 5000 online signatures to compel government officials to respond to any local issue^[9]. E-petition tools can be used for highlighting awareness about certain issues. Holopolis helps to expedite the process by creating virtual face-to-face meetings^[10]. It can also create immersive environments that facilitate the peoples' views and concerns on any issue. Consequently, Holopolis is a versatile and robust tool that engages with citizens. It wants to enter into citizens' spaces instead of the other way where citizens have to learn about technology. It is an important mechanism that has been utilized for strengthening democracy in Taiwan.

[⁹] Democraticinnovations. 2019. *Holopolis uses virtual reality in public deliberation*. [online] Available at: <<https://www.democraticinnovations.com/project/holopolis-uses-virtual-reality-in-public-deliberation/>>.

[¹⁰] Democraticinnovations. 2019. *Holopolis uses virtual reality in public deliberation*. [online] Available at: <<https://www.democraticinnovations.com/project/holopolis-uses-virtual-reality-in-public-deliberation/>>.

What Went On: Process, Interaction, and Participation

Holopolis sought to support people through online participation and discussions. Participants can freely speak in the virtual meetings with public or elected officials. The experiment leverages web and AI technologies to encourage remote participation. Large groups of participants can simultaneously participate in the virtual meetings. The virtual environment helps to support people by catering to their unique learning needs^[11]. In other words, holopolis supports diverse methods to promote participation. It seeks to use technology to promote deep and fair conversations. Moreover, the aim is to create collective consensus and provide solutions for the problems faced by the people. Holopolis is also an open project that welcomes individuals of all walks of life from Taiwan. It is also a platform for various projects. Contributors can initiate projects and share their ideas. They can create the prototypes that help to achieve efficiency. Holopolis encourages people to listen to each other in profound ways. They work together and brainstorm on solutions. The end result is to ensure that the people can work together to find solutions for local problems in coordination with policy makers. Holopolis is part of Taiwan's experiment to create scalable and reproducible democracy that links citizens and government through civic deliberation^[12]. Digital legislation is also made easy by leveraging the power of technologies. The process helps to reveal insights about the benefits of using technology for empowering citizens, facilitating dialogue and promoting collaboration with citizens. It also helps to understand the ways that government-citizen meetings can be done in productive ways.

Holopolis enables citizens to vote on different issues using VR technology. They can also provide advice to the government officials and public officials on various issues. This helps to improve collective decision making and problem solving. It also helps to empower the people while creating a productive society that handles problems faster and efficiently. Feedback and participation from the participants help to strengthen the elected official or public official's jobs. The focus of Holopolis is on local issues because they help to empower citizens at the grassroots levels. Several issues have been discussed such as motorcyclists' concerns about left turn rules, divers, and others^[13]. The process is being carried on experimental basis. These experiments help to study the viability of the platform. Moreover, the Taiwanese government states that Holopolis cannot be a replacement for face-to-face town meetings^[14]. Nevertheless, it is a step towards improving collaboration and problem solving so that sound outcomes can be attained. The platform also emails videos or transcripts of the meetings to thousands of people. This is an important step because it allows other users to read and view the content of the meetings. This helps to promote and safeguard democracy efficiently. Holopolis also helps to promote digital inclusion through inclusion of Taiwanese people from all groups and communities. Moreover, it helps to enhance the concept of democracy by ensuring the highest levels of citizen participation.

^[11] Shuyanglin.github.io. n.d. *tinyverse 微米宇宙*. [online] Available at: <<https://shuyanglin.github.io/arthon/>>.

^[12] Medialab-matadero.es. 2018. *Holopolis: prototyping future democracy | Medialab-Matadero Madrid*. [online] Available at: <<https://www.medialab-matadero.es/en/projects/holopolis-prototyping-future-democracy>>.

^[13] Democraticinnovations. 2019. *Holopolis uses virtual reality in public deliberation*. [online] Available at: <<https://www.democraticinnovations.com/project/holopolis-uses-virtual-reality-in-public-deliberation/>>.

^[14] Democraticinnovations. 2019. *Holopolis uses virtual reality in public deliberation*. [online] Available at: <<https://www.democraticinnovations.com/project/holopolis-uses-virtual-reality-in-public-deliberation/>>.

Influence, Outcomes, and Effects

Holopolis is still at an experimental stage. Consequently, its intended results are not visible because it will take time to evaluate the success or failure of the initiative. However, the platform does hold significant promises in enhancing civilian-government participation and dialogue on local issues. It helps to include citizens from all walks of life in Taiwan. Furthermore, the initiative will be increased and applied in different settings. The platform will be implemented at multiple levels because shared virtual meetings have potential to expedite problem solving and create consensus that can be translated into legislation and policies that solve problems at the local level. The outcomes of the project can be determined only in the long-term. This can happen only when academic research works with policy makers. They need to have the effective research tools that can help to measure and evaluate the success of the campaign. Moreover, citizens' views and surveys also need to be undertaken to understand if they felt that their problems have been solved or not.

Analysis and Lesson Learned

The aim of Holopolis is to create digital and online platforms where citizens of Taiwan can meet with government or public officials for discussion of local issues. It leverages the use of VR to create immersive spaces where discussions and engagement on local issues can be attained. Government officials or public officials can also understand the local issues when immersive settings are used to convey the issue. Individuals can engage in remote discussions and participation by exchanging views and making recommendations^[15]. The ultimate goal is to use rough consensus to create laws and policies that will eventually help the people and increase trust towards the government. In the above context, Holopolis is still an experimental technology that has been applied in limited ways. It does show the importance of technology in promoting good governance and democracy. Moreover, it also shows that Holopolis can be expanded with more applications and features that will strengthen digital inclusion, promote citizens' participation, and increase good governance.

Emerging technologies and global challenges have the potential to create collaboration between governments and citizens. Specifically, democracies will try to increase citizen participation, enhanced decision making, and enhanced governance mechanisms given the diverse nature of threats that society is facing^[16]. Moreover, citizens' participation is crucial element of effective democracy. Technologies like VR can help to make complex decisions by including maximum number of citizens in the decision-making processes. Holopolis aims to engage citizens and government by finding creative solutions for problems and creating spaces for engagement. It seeks to end the outdated and traditional forms of bureaucracy where individual decisions are made for public interest. Holopolis as a technology uses VR which can promote creativity. Creativity is already known as essential for freedom. The application of creativity helps to solve problems in society and promotes good governance mechanisms^[17]. VR as a technology has potential for democracy because it creates immersive environments. Creating such immersive environments helps in understanding concerns of

[15] Democraticinnovations. 2019. *Holopolis uses virtual reality in public deliberation*. [online] Available at: <<https://www.democraticinnovations.com/project/holopolis-uses-virtual-reality-in-public-deliberation/>>.

[16] Hujran, O., Abu-Shanab, E., & Aljaafreh, A. (2020). Predictors for the adoption of e-democracy: an empirical evaluation based on a citizen-centric approach. *Transforming Government: People, Process and Policy*.

[17] Sinha, D. (2018). *The Information Game in Democracy*. Routledge India.

local citizens. It can also help others to understand the perspectives of the citizens. Immersive environments can be adapted to focus on specific scenarios. This would help to increase decision making and ensure that participation can increase in democracy.

Holopolis faced some challenges during its experimental implementation process. Specifically, the impact of VR technology on policy goals and democracy needs to be studied^[18]. This is a long-term endeavor because it will need academic research. Studying the impact of VR technology can reveal insights about the strengths and weaknesses of the platform. There were technology issues related to audiovisual requirements^[19]. These technical challenges are not new as research finds they are common whenever technology is used as a tool for online collaboration, deliberation, and democratic participation. Overcoming the technical problems and hurdles is important for success of Holopolis. Emerging technologies like VR can be used for promoting deliberative democracy. It can help to create platforms where multiple viewpoints can be used for collective decision making. Additionally, these technologies provide opportunities for interaction and can be used as research tools. In the context of Holopolis, the platform plays an important role in promoting an innovative type of democracy. It helps to reduce barriers and ensures participation of the masses. Moreover, it helps to ensure access to information and promotes meetings in a cost-effective manner. It can also be used as a tool for change and provide all viewpoints. Foster and advocacy of change can help to transform Taiwanese society. It can strengthen the process of democratization that has been a recurrent feature of the country since the late 1980s.

To ensure success of Holopolis, policy makers need to overcome the technical challenges and problems. They need to work in collaboration with private and government organizations to improve features and applications. However, the most important task is to study the impact of Holopolis on the masses. The problems identified can be remedied through software upgrades or providing new features. Another issue is that Holopolis should be used in coordination with other digital and conventional approaches towards strengthening democracy in the country. Holopolis cannot be used as a stand-alone tool that can solve all problems. But it should be viewed as one innovation that can work with other innovations to foster change and promote democracy.

[18] Democraticinnovations. 2019. *Holopolis uses virtual reality in public deliberation*. [online] Available at: <<https://www.democraticinnovations.com/project/holopolis-uses-virtual-reality-in-public-deliberation/>>.

[19] Democraticinnovations. 2019. *Holopolis uses virtual reality in public deliberation*. [online] Available at: <<https://www.democraticinnovations.com/project/holopolis-uses-virtual-reality-in-public-deliberation/>>.

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External Links

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<https://pdis.nat.gov.tw/en/>

<https://shuyanglin.github.io/arthon/>

<https://www.medialab-matadero.es/en/projects/holopolis-prototyping-future-democracy>

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1. Tags

- Administration of Campaigns and Elections
- Artificial Intelligence
- Bureaucracy
- Citizenship and Role of Citizens
- Governance and Social Institutions
- Science and Technology

LOCATION

1. Primary Location

Values:

Taiwan

2. Scope of Influence

Values:

National

MEDIA

1. Files

Slides for Personal Democracy Forum

Source Link: <https://www.slideshare.net/ShuYangLin1/po-vtaiwan-holopolis-101099837>

Attribution: Shu Yang Lin

Title or Description: Slides for Personal Democracy Forum in 2018 about experiments in Taiwan on prototyping future democracy, focusing on three projects: PO network, vTaiwan and Holopolis.

2. Links

Introduction to Holopolis

Source Link: <http://holopolis.pdis.tw/>

Attribution: PDIS

Title or Description: Introduction to Holopolis

DATE & DURATION

1. Start Date

Values: 2017

2. End Date

Values: N/A

3. Ongoing

Values: Ongoing

4. Time Limited or Repeated?

Values:

- Repeated over time

PURPOSE & APPROACH

1. Purpose

Values:

1. Make, influence, or challenge decisions of government and public bodies
2. Make, influence, or challenge decisions of private organizations (e.g., civil society organizations; corporations)
3. Develop the civic capacities of individuals, communities, and/or civil society organizations (e.g., increase understanding of public issues; strengthen social capital)

2. Approach

Values:

1. Advocacy (e.g. lobbying; petitioning)
2. Citizenship building (e.g. opportunities for people to learn about their rights & claim them)
3. Civil society building (e.g. network building across governmental & social boundaries)
4. Co-governance (e.g. collaboration in decision making with government and public bodies)

3. Spectrum of Public Participation

Values:

- Collaborate (partner with the public in each aspect of the decision including the development of alternatives & the identification of the preferred solution)

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PARTICIPANTS

1. Total Number of Participants

Values: N/A

2. Open to All or Limited to Some?

Values:

- Open to All

3. Recruitment Method for Limited Subset of Population

Values:

- N/A

4. Targeted Demographics

Values:

- N/A

PROCESS

1. General Types of Methods

Values:

1. Community development, organizing, and mobilization (i.e. empowering communities to drive, implement, and effect change)
2. Deliberative and dialogic process (i.e. structured processes that involve deliberation and/or dialogue as a central aspect)

2. General Types of Tools/Techniques Used

Values:

1. Collect, analyze, and/or solicit feedback (e.g. questionnaire; keypad polling)
2. Facilitate dialogue, discussion, and/or deliberation (e.g. active listening; managing conflict)
3. Legislation, policy, or frameworks (e.g. arrangements that formally embed public participation)

3. Legality

Values:

- Yes

4. Facilitators

Instructional text: Did facilitators help guide part or all of this case?

Values:

- No

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5. Face-to-Face, Online, or Both

Values:

- Online

6. Types of Interaction Among Participants

Values:

1. Ask & Answer Questions
2. Discussion, Dialogue, or Deliberation
3. Express Opinions/Preferences Only

7. Decision Methods

Values:

- Don't Know

8. Communication of Insights and Outcomes

Values:

- N/A

ORGANIZERS & SUPPORTERS

1. Primary Organizer/Manager

Instructional text: Audrey Tang

Values: Taiwan government

2. Type of Organizer/Manager

Instructional text: Select up to three types of organizers or managers. *Delete as applicable*

Values:

- National Government

EVIDENCE OF IMPACT

1. Evidence of Impact

Values:

- Don't Know

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2. Implementers of Change

Instructions: Select up to three types of actors who played roles in implementing ideas that emerged from this initiative. *Delete as applicable*

Values:

- Elected Public Officials
- Experts (e.g. scientists, engineers, criminologists, doctors, lawyers)

3. Formal Evaluation

Instructional text: Was a formal evaluation of this initiative conducted? *Delete as applicable*

Values:

- Don't Know